

HEALTH CARE and HIV

NUTRITIONAL GUIDE FOR PROVIDERS AND CLIENTS

June 2002

HIV/AIDS BUREAU



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www.ask.hrsa.gov or

1-888-ASKHRSA (275-4772)

Advisory Committee HIV Nutrition Project

Nutrition Project Adults & Chronic Disease

Ellyn Silverman, MPH, RD
Lead Writer
ECS Nutrition Services
Long Beach, CA

Christine A Connor, RD, CDN
Long Island Association
Flushing, NY

Carla R Heiser, MS, RD
Kelliher and Associates
Chicago, IL

Barbara J Scott, RD, MPH
University of Nevada School of Medicine
Reno, NV

Rachel Stern, MS, RD, CNS
North Jersey Community Research Initiative
Newark, NJ

Women

Karen Bellesky, RD, LD
Lead Writer
Chase-Brexton Health Services
Baltimore, MD

Christina Doyle, MA, RD
Carl Vogel Center
Washington, DC

Christine McGuire, MS, RD
Iris House, Inc.
New York, NY

Leah Stern, MS, RD, CDN
AIDS Institute/New York State Dept of Health
New York, NY

Pediatrics and Adolescents

Linda Heller, MS, RD, CSP
Lead Writer
Childrens Hospital of Los Angeles
Los Angeles, CA

Vivien Morris, MS, RD, MPH, CSP
Boston Medical Center
Boston, MA

Peggy Papathakis, RD, CSP
University California Davis Medical Center
Sacramento, CA

Pamela Rothpletz-Puglia, MS, RD
FXB Center, UMDNJ
Newark, NJ

Editors

Marcy Fenton, MS, RD
AIDS Project Los Angeles
Los Angeles, CA

Celia Hayes, MPH, RD
Health Resources and Services Admin.
Office of Science & Epidemiology
Rockville, MD

Laura McNally, MPH, RD, FADA
Health Resources and Services Admin.
Office of Planning and Evaluation
Rockville, MD

Kelley Weld
Health Resources and Services Admin.
Office of Science & Epidemiology
Rockville, MD

Introduction

Purpose

Good nutrition has always been an important part of good health. Most people know a little about nutrition. Somewhere, most of us have learned about the basic four food groups. It is possible that somewhere we have even seen the Food Guide Pyramid. It is more difficult, however, to put specifics on “good” nutrition. Mostly good nutrition means eating the right foods in the right amounts at the right time. It can be simple. The purpose of this manual is to help make good eating and, thus, good nutrition easy for everyone.

Over the past few years it has been increasingly documented that good nutrition is an integral part of health care for people with Human Immunodeficiency Virus (HIV). However, very few people really grasp the concept of how to apply even basic food groups to what they actually eat. Therefore, the authors have tried to arrange information from very basic to specific. As often as possible, a chart or table is offered instead of lengthy text. One page information sheets for clients are provided. In addition, materials have been developed with the recognition that these tools will be used primarily by non-nutritionists in most settings.

This manual can assist health care providers and people with HIV in the effort to make good nutrition (eating good food) a part of health care. Specific ideas are presented regarding the issues about eating and food that people with HIV confront on a daily basis. Health care providers should monitor changes in body composition and body fat distribution. Useful information, such as triceps skin fold, midarm and waist circumferences utilizing calipers and a tape measurer, should be routinely collected. Measurement of body composition using Bioelectrical Impedance Analysis (BIA) is strongly recommended. If your clinic does not have access to this equipment, see if someone else in your community does and will perform these measures for your clients. Several pharmaceutical companies that make products for treatment of wasting may also help provide the equipment for testing, so ask the company representatives when they come to visit. (See Section 8 for more information about measuring body composition.)

The manual is divided into several sections. There are very simple ideas presented in a straightforward way for those who are not interested in details. Additional information, scientific references and background information on many areas of concern in nutrition and HIV are also included. This information can be used by both providers and clients.

The assessment tools provided are to be used, not only for assessing nutritional status, but also as a starting point for counseling. Routine use of these tools can help assure adequate nutritional care as the client's health status changes throughout the course of the disease.

The manual can be used in whole or in parts. It is the intention of the authors that the information be simple and easy to use. It is designed to be updated from time to time and modified to meet new emerging practices and issues in nutrition. The following are logos that can quickly help identify the kind of information found on a page.

Keep learning all you can about good nutrition and health. After all it is your life....enjoy every minute of it.

Guidance for the Health Care Provider

Role of Nutritional Well-Being

Nutrition is an essential component in the care of HIV-infected individuals. Almost from the onset, HIV infection causes changes in nutritional status. During the past decade it has become apparent that individuals at all stages of the HIV disease spectrum are at increased risk of nutritional deficiency. Weight loss, cachexia, loss of lean body mass and specific nutrient deficiencies are commonly seen in HIV-infected individuals. The cause of malnutrition is thought to be multifactorial and related to loss of appetite, malabsorption, increased losses (vomiting, diarrhea, renal losses, etc.) and alterations in metabolism.

Nutritional needs can be characterized by using "Levels of Care." Levels of Care are more extensively discussed in the HIV/AIDS Medical Nutrition Therapy Protocols in Section 9.

ASYMPTOMATIC HIV INFECTION

Focus nutrition efforts on:

- ❖ Education about nutritional needs
- ❖ Ensuring adequate diet with balanced intake of macro-nutrients (calories, protein, carbohydrates, fat) and micro-nutrients (vitamins and minerals)
- ❖ Educating clients on safe food handling and preparation
- ❖ Identifying/addressing any misinformation

HIV/AIDS SYMPTOMATIC BUT STABLE

Focus nutrition efforts on:

- ❖ Addressing nonspecific symptoms and fatigue
- ❖ Preventing weight loss and potential wasting
- ❖ Exploring use of alternative therapies, herbals, etc.

Although weight loss may occur, it is usually not progressive. Progressive wasting does not occur due to a compensation between resting energy expenditure and decreased voluntary energy expenditure.

HIV/AIDS ACUTE AND PALLIATIVE

Focus nutrition efforts on:

- ❖ Providing adequate calories to diminish effects of malnutrition

Malnutrition may occur and may be severe and progressive. Clients may have episodic periods of weight loss followed by partial or complete recovery, usually with treatment of another disease complication.

Weight Changes

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Guidance for the Health Care Provider

With careful attention and early treatment, involuntary weight loss and wasting can be avoided for most people. This is important because those who lose weight, particularly lean weight (muscle and organ protein), tend to be sicker and may die earlier than others who are able to maintain a healthy weight.

There are different patterns of weight change that can be experienced by people with HIV. Rapid and significant weight loss is what most often comes to mind. However, gradual weight loss or changes in body composition, where fat replaces muscle without noticeable weight loss on the scale, can also occur very early after HIV infection or during the course of the disease.

Body Shape Changes

As HIV therapies have improved over the past few years, some people are now beginning to gain excess weight as their health returns. Additionally, newer patterns of weight loss and weight change, called “lipodystrophy syndrome,” are being observed in patients achieving viral suppression on the highly active antiretroviral therapies- (HAART). These syndromes can cause distress. Some of the characteristics of these fat changes include “lipoatrophy,” a loss of fat in the arms, legs, buttocks, and face, that may or may not be accompanied by accumulation of visceral fat to the abdomen, or fat to the breasts in women, or back or front of the neck.

The health significance of these syndromes is not yet clear, but the redistribution of fat to the mid-section of the body may be associated with increased risk of other diseases such as heart and gallbladder disease and diabetes. Certainly the changes in physical appearance are very discouraging to those who are looking in the mirror, and some may be tempted to stop their HIV therapy in order to have a normal appearance again. For these reasons, it is important to regularly monitor total weight, body composition, and body weight distribution as a part of routine health care for persons living with HIV.

Some people may lose weight when they do not have access to enough food or when they eat less to lose weight intentionally. With this kind of starvation weight loss, a person’s body uses stored fat first to make up for the energy lacking in the diet, and save protein from muscles and organs. People with HIV may have this kind of weight loss, and it may be easier to reverse if it is noticed early and something is done to correct it. It is important for health care workers to question clients who are involuntarily losing even small amounts of weight to determine why and then work to correct the cause.

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Guidance for the Health Care Provider

Wasting

More serious, however, is weight loss called wasting. This is when the body uses protein for energy instead of body fat. This condition is important to avoid because our body protein is needed for many critical body functions.

HIV Wasting Syndrome is an AIDS defining condition. Wasting is defined by the CDC as the involuntary weight loss of greater than 10 percent of pre-illness body weight, and either chronic diarrhea (at least 2 stools per day for more than 30 days) or weakness and documented fever for over 30 days in the absence of a concurrent illness or condition other than HIV infection.

Cachexia or AIDS Wasting is wasting that goes beyond not getting enough to eat. Wasting may be characterized as progressive, unexplainable weight loss in spite of eating well. The key is that your nutrient needs are higher than what you are eating. Because of the virus itself or the complicated way that the anti-HIV medicines change your metabolism, nutrition needs may be 12-25% higher. Malabsorption, infections or other illnesses can increase these needs. Also, the way that your body uses food for fuel may also be changed. Instead of saving protein for building, repairing and maintaining muscle, your body may use your own protein stores to use for energy. Cachexia or AIDS Wasting shows up as a greater weight loss from muscle rather than fat stores. Increased loss of muscle over fat is a signal of wasting.

Causes of weight loss and wasting may be attributed to the following:

- ⟨ **Lack of adequate intake:** Lack of appetite can be due to many different reasons, depression, side effects of drugs, pain, mouth sores, difficulty swallowing or other reasons. Less than usual intake is a sign that something is wrong and further steps should be taken. Work with your doctor to correct the cause and seek nutrition counseling to manage any symptoms and optimize your intake.
- ⟨ **Hypogonadism:** Low levels of testosterone have been seen in both HIV-infected men and women. Clinical signs of hypogonadism include: lack of appetite, depression, decreased sexual desire and performance, decreased energy or fatigue, decreased strength and endurance, hair loss, impotence, reduced lean tissue, and reduced size of testes. Testosterone replacement, starting at 100 mg intramuscularly, or use of other anabolic agents used in conjunction with resistance exercise has been shown to be effective in weight gain and in the replacement of lean muscle tissue.
- ⟨ **Loss of nutrients:** HIV itself may damage the intestine so that it can not absorb and utilize nutrients ingested. This is called malabsorption. Vomiting or diarrhea can also lead to nutrient losses. Use of enteric-coated pancreatic enzymes, special “pre-digested” liquid formulas, and glutamine are a few of the treatments that may be helpful.

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Nutrition counseling is helpful for clients with chronic nausea, diarrhea or a specific food intolerance.

- ⟨ **Increased calorie needs for body processes:** The cause of this is not fully understood. It is thought that having HIV constantly present in the body makes it work harder all the time as it works to get rid of the virus. Nutrition counseling for increased intake of calories and other nutrients is the most important therapy in these instances.
- ⟨ **HIV infection:** As with any infection, the body normally releases protein-based immune factors into the blood to fight infection. HIV infection continues over an unusually long period of time, and the body keeps needing protein to make the immune factors. This eventually interferes with appetite and other normal processes.
- ⟨ **Other non-HIV infections:** In battling infections, caloric and nutrient needs increase. Weight loss, fatigue, low-grade fever and anorexia may be early nonspecific signs of undiagnosed opportunistic infections. The gap between meeting nutrition needs and the amount of calories needed increase as appetite decreases, and this is especially true during an opportunistic infection.

Response to therapies and nutritional counseling should be initially evaluated at 2 and then 4 weeks intervals. It is important to eat good quality food: plenty of complex carbohydrates with lean, protein foods and moderate amounts of heart healthy dietary fat sources. It is also important to include some level of progressive resistive exercise to maintain and build muscle.

With earlier and more effective treatments for both wasting and to stop viral progression, people living with HIV and AIDS are functioning better and living longer. The hope that HIV truly becomes a manageable, chronic disease is more real today than ever before. Efforts to identify and prevent excessive weight gain and other complications associated with modern health problems, will also be critical to longevity and well being.

For more information, see References (Section 11).

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Guidance for the Health Care Provider

Incorporating Nutrition into Clinical Practice

WHAT: Recognize the benefit of using what we know about nutrition to improve the lives of people with HIV.

WHY: From what we have learned from scientific research and clinical experience, early and continuous attention to nutritional status is essential to achieving maximal health benefits.

Many people working in HIV care may not have had the opportunity for formal education and training in nutrition. This manual will provide the basic knowledge you need to provide clients with fundamental nutrition information and care.

Nutrition, as in all sciences, evolves continually. This manual provides a basic framework with fundamental nutritional aspects commonly seen in people with HIV. Detailed information is included in the appendices, as well as a bibliography. The notebook design allows for the easy addition of new/updated materials.

The manual is designed around the "real world" issues of HIV. How you use this information will depend on your setting and the population you serve.

This manual will help you to provide ongoing, continuous nutritional care from the first visit, as well as to help established clients you have been following for a while. The manual is designed to provide you with information, tools, and materials to help you monitor nutritional care and to intervene when you identify specific problems. Providing nutritional care as early as possible in the disease process will assist you with the overall medical management of the client.

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Guidance for the Health Care Provider

How To Use The Nutrition Guidance Materials Included In This Manual

Ideally, you should see clients and counsel them on good nutrition before problems start. Evaluating your client's nutritional status and providing nutritional counseling/follow up should be part of your routine. The chart below outlines the tasks involved in evaluating your client's nutritional status and the tools available in this manual to assist you in counseling.

Task / Objective	Tools to Use
1. Data Collection	Quick Nutrition Screen (QNS), Nutrition Assessment Tool (NAT), Food Intake Record (FIR)
2. Review / Analysis	Background Information Research Articles
3. Formulate Recommendations	Handouts — symptoms management Monitor food intake
4. Follow-up	Nutrition Assessment Tool (NAT), Quick Nutrition Screen (QNS), Evaluation

The manual has been designed to be replicated. Use the pages in the manual as the "Masters", making copies of the assessment tools (QNS, FIR, NAT), as well as the one page "Health Assurance Series" and "Symptoms Management" handouts to use in conjunction with client counseling sessions. In addition, copies of the manual can be made for distribution if your program has multiple sites.

Colored tabs identify health care provider resource materials from client education handouts.

Red tabs indicate health care provider sections.

Gray tabs indicate client education handouts.

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Guidance for the Health Care Provider

Getting Started on Incorporating Nutrition Into Your Practice



The following is a step-by-step guide to doing nutrition assessment and making nutrition education a part of what you do with each client.

First Visit:

- a.) **Have client complete a Quick Nutrition Screen (QNS)** while waiting. This is a good opportunity to assess the reading and language ability of your client.
- b.) **At a minimum, measure and record height and weight.** Do not ask the client their height and weight — measure it. Collect other useful information such as Tricep Skin Fold (TSF) and Midarm Muscle Circumference (MAMC) or Bioelectrical Impedance Analysis (BIA) as time and equipment permit. See formulas in the Tables and Charts (Section 8, pages 8-1 through 8-3) for information on how to do these measurements and calculations.
- c.) **Review the completed QNS and evaluate responses with the client.** Make sure that all questions are answered. Check with the client to be sure that they understood and have responded accurately to all of the questions.
- d.) **Cue in on “yes” responses to the QNS.** These may indicate potential problem areas that need to be addressed. Ask the client for additional details. Talk to the client to determine severity/priority of problems and how they affect their ability to meet nutritional needs. Ask the client if there are additional problems/concerns that are not on the QNS.

A higher number of yes answers on the QNS may indicate a greater nutritional risk.

- e.) As a screening tool, the QNS provides basic information; you will need more data. **Use the Nutrition Assessment Tool (NAT) to collect more pertinent, specific information.**

Refer to corresponding client education handouts designed to match the problems identified. These are located in the client education sections of the manual.

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Guidance for the Health Care Provider

- f.) **Pay attention to changes in nutrition problems:** Good nutritional status will help the client feel better. Let the client know that at each visit they will complete a QNS to further monitor nutritional status. They need to know that paying attention to nutritional status will help them feel better. **Ask the client to notice changes related to their diet or health and bring up new problems.** Be positive and be available to give reinforcement to the client. Explain that it is important to bring up any changes that may occur as there may be additional tips or suggestions that might be tried to reduce or alleviate symptoms.
- g.) **Be realistic.** In many cases, the client may have multiple problems and it will be necessary to prioritize. Ask the client his/her priorities. Keep in mind that it may not be realistic to address all problems at the same visit.
- h.) **Focus on one issue at a time.** Once more data is obtained from the client and specific problems are identified, review and provide handouts from the manual designed to match each question number on the QNS.

Work with the client to identify and implement a plan.

- i.) **Document plans in priority order** by including completed QNS in the client's medical record along with your notes. The Nutrition Assessment Tool (NAT) allows you to collect data over several visits. This will allow you to track trends.
- j.) **Use the Food Intake Record (FIR) and the Health Assurance series handouts as appropriate.**

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Guidance for the Health Care Provider

Follow-up Visits

- a.) **Ask the client to do the Quick Nutrition Screen (QNS)** if one has not been completed during the last month. Weigh the client. Take other measurements as appropriate (BIA, TSF, MAMC, etc.).
- b.) **Update Nutrition Assessment Tool (NAT) with the client.** Compare current QNS/NAT results with previous QNS/NAT.

*Look for new problems and continuation or resolution of old problems.
Ask the client if there are any additional problems.*

- c.) **Follow-up on any previously identified problems.** What has helped or not helped?
 - 1. Problem Same/Worse — consider alternate intervention.
 - 2. Problem Better — continue current therapy.
 - 3. Problem Resolved — may discontinue special therapy, but follow-up for recurrence.
 - 4. Document.
- d.) **New problems**
Prioritize problems and provide counseling and educational materials.
- e.) For clients with **recurrent general intake problems**, consider using the Food Intake Record (FIR) to help identify the source of the problems.

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Guidance for the Health Care Provider

Using the Food Intake Record (FIR)

What is a Food Intake Record?

A tool to help identify typical eating patterns.

What it's not?

An accurate reflection of what a person consumes each day.

Why do it?

Gives you information on how a person typically eats to use as a baseline.
Helps the client focus on what and how much food they are eating on a daily basis.
Can help identify additional nutritional problems and eating patterns.

How To Complete a Food Intake Record:

- a.) Ask the client if they are willing and able to complete a FIR. Show them the form. Explain that the FIR is another way of helping to identify nutritional problems which can be addressed to help them feel better.
- b.) If the client declines, don't argue! Consider trying again at a later time, as appropriate.
- c.) If the client agrees, go over the instructions for the FIR. Remember that eating patterns vary. Ask him/her to write down everything they eat or drink, including all alcoholic beverages and snacks for a 24 hour period.
- d.) If appropriate, ask the client to do one FIR for a day when they work and another for a day off or weekend day.
- e.) When the client returns with the completed FIR, review serving sizes and food preparation. Ask the client if this is a usual day or if something was unusual about this day. Use commonly known examples, i.e., a coffee cup size versus a convenience store 32 oz. size soda cup.
- f.) Review client intake versus recommendations listed on the bottom of the FIR. Identify areas where the client is not consuming the recommended intake levels. Talk with the client to devise strategies to increase intake in these areas.

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Guidance for the Health Care Provider

How To Complete a Food Intake Record: (continued)

- g.) If the client reports an intake that exceeds the recommended levels, this is not usually a problem. An exception might be if a client eats excessive amounts of food from only one or two food groups or an excessive amount of fats and/or sweets. In some cases, the overall goal should be an adequate intake of nutrients and calories, as opposed to meeting the recommended number of servings from each food group.
- h.) Look at the overall dietary pattern. Remember that physical symptoms (thrush, mouth sores, etc.), social issues (lack of money or shelter, etc.), cultural patterns, and psychological issues (depression, withdrawal) can dramatically affect food intake.
- i.) For specific problems, discuss approaches which may be helpful. Don't forget to use the handouts available in this manual, but don't use them as a substitute for discussion. Know and use your referral resources (Social Workers, Case Managers, Mental Health Providers, Registered Dietitians/Nutritionists, Meals on Wheels, etc.)

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Guidance for the Health Care Provider

Guidelines for Nutrition Counseling

- 1.) Focus on the client — call him/her what they would like to be called. Make eye contact (if culturally appropriate) — don't keep your focus on the chart.
- 2.) Ensure as much privacy as possible; minimize distractions.
- 3.) Inform the client of confidentiality.
- 4.) Ask what his/her wants or needs are regarding this nutrition visit; what they would like to focus on at this visit.
- 5.) Review the QNS, other assessment/background data. Relate this to the client's needs/wants.
- 6.) Keep an eye on the time; remember you have only a limited amount of time. Also, remember that many client's attention may wander after a short while.
- 7.) Recognize that some clients, especially if symptomatic, may be physically uncomfortable. Do what you can to make them comfortable; in extreme situations consider rescheduling.
- 8.) Change is difficult for everyone, especially changing the way we eat. Don't expect the client to change their entire eating pattern. Prioritize and make certain that you and the client agree on which issues to address.
- 9.) In forming recommendations, be sure to consider all aspects of the client's life — living arrangement, culture, finances, energy level, etc. Make sure your recommendations are realistic.
- 10.) "Get Real" — Make sure the client understands and is able to make the changes you're recommending. Ask the client to tell you in their own words how they'll do this. Ask the client if they have any questions.
- 11.) Let the client know who to call and how to make contact, if they have any questions.
- 12.) Tell the client that you'll continue to follow their nutritional status as part of their overall medical care.
- 13.) Provide some closure. Remember this is a human being. As culturally appropriate, address the client by name and consider a handshake, hug or other contact.

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Introduction to Nutrition Assessment

The first step in nutritional care is nutritional assessment. An initial nutritional assessment of the HIV-positive client can provide important baseline information on nutritional status as well as overall health status. This initial evaluation should occur as early as possible, once the client has been diagnosed as HIV-positive. This will allow the health care provider to begin to implement dietary interventions or strategies which may help to reduce or alleviate the nutritional complications associated with HIV-disease and thereby prevent or alter the effects of wasting. Body measurement of children is addressed in Section 6. More detailed information about body measurement is located in Section 8.



A complete nutritional assessment should include the following parameters:

ANTHROPOMETRICS (Body Measurements)

- ❖ **Height:** Wall-mounted devices, called stadiometers, are the most accurate way to measure height. If a stadiometer is not available, a height rod on some scales can be used, though it is less accurate.
- ❖ **Weight:** A variety of weight measures, as well as information about past weight are very helpful...
 - Current weight*
 - Weight history:* usual weight, highest and lowest adult weights and the circumstances to explain these weights
 - Desired weight:* healthy weight goal determined at initial visit and revised as needed. Use weight history and healthy weight (pre-illness, able to easily maintain without starving or stuffing).
- ❖ **Waist, Hip and Neck Circumference Measures:** These measures are used to document changes and trends in body fat distribution. In general, a waist-hip ratio equal or less than 0.8 for women and 1 for men is desirable to maintain. Measurements greater than these can indicate obesity and a greater risk for obesity related diseases. At this time there is no standardized technique for measuring neck circumference.
- ❖ **Triceps Skinfold and Mid-Upper Arm Circumference:** These measurements are used to estimate body muscle and fat stores. It is important that the clinician taking this measurement has been trained and has developed the skills for accuracy.
- ❖ **Biochemical Measures:** Blood work should also include tests for the following: testosterone, fasting blood glucose, fasting cholesterol, fasting triglycerides, CD4, viral load, and Hemoglobin A1C (in diabetics).
- ❖ **Functional Measures:** The following measures assess changes in functional capacity over time. There are currently no normal ranges to use as a reference.

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Introduction to Nutrition Assessment

- Hand Grip:** using a hand dynamometer, determine how much pressure the person can apply.
- Sit to Stand:** using a stopwatch, determine how many times the person can stand up from sitting position, sit back down, stand up, etc. for 15 seconds.
- Timed “Get up and Go”:** using a stopwatch, determine how long it takes a person to get off a chair and move in a given direction.

BIOCHEMICAL

Recommended baseline data include:

- ❖ Albumin, total iron binding capacity (TIBC), pre-albumin
- ❖ Fasting blood lipids, testosterone, fasting blood sugar
- ❖ Liver enzymes, renal panel
- ❖ Hemoglobin, serum iron, magnesium, folate
- ❖ Vitamin B-12, serum retinol (vitamin A)

What’s Important:

- ❖ Useful indicators of current status and can warn of changes when at risk for wasting.
- ❖ Key indicators of visceral protein or specific nutrient status.
- ❖ Measurements of cholesterol, albumin, and serum retinol may be predictive of morbidity and mortality in HIV-infected individuals.
- ❖ Albumin, total iron binding capacity (TIBC), and pre-albumin are all excellent markers of nutritional status and good indicators of protein status and wasting.
- ❖ Triglyceride levels are elevated in HIV disease due to alterations in fat metabolism. Sudden additional rises in triglyceride levels may be an indicator of secondary infections and potential wasting.

CLINICAL

- ❖ Physical examination
- ❖ Current medications
- ❖ Current medical status
- ❖ Alternative therapies (acupuncture, herbal therapies, etc.)

What’s Important:

- ❖ Intervene **as soon as possible** to avoid wasting.
- ❖ Current medical condition impacts the overall health status and ability to eat.
- ❖ Multiple medications and dosage schedules may make adequate intake of food difficult.
- ❖ Side-effects of medications may alter desire or ability to eat.
- ❖ Current health status, including current opportunistic infections may impact food choices.

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Introduction to Nutrition Assessment

DIETARY

- ❖ Use screening tools to obtain baseline or current status of nutritional adequacy:
 - Quick Nutrition Screen (QNS)
 - Food Intake Record (FIR)
 - Nutrition Assessment Tool (NAT)
- ❖ Explore additional factors which will impact eating:
 - Diarrhea, nausea/vomiting
 - Mouth/throat lesions, thrush
 - Changes in taste and smell

What's Important:

- ❖ **APPETITE** — knowing what's enough and deciding to eat enough, don't always get you there. You also need to want to eat enough.
- ❖ Nutrition education is a critical aspect to nutrition evaluation.
- ❖ Early signs of infection may be a sudden loss of interest in food.
- ❖ Diarrhea, abdominal discomfort, and feelings of fullness/bloating will all impact eating and cause an individual to be less hungry, eat less food and eat less often.
- ❖ Taste and smell are vital parts of appetite. When secondary receptors are altered due to disease or medication, appetite is often affected.

ECONOMIC/SOCIAL

- ❖ Living conditions/support systems
- ❖ Financial resources/access to food
- ❖ Cultural practices/alternative therapies
- ❖ Mental health status — depression, fatigue, dementia

What's Important:

- ❖ Assess the individual's ability to access/utilize food — adequate resources and income.
- ❖ Assess current living situation — availability of resources: refrigerator, stove, oven, hot plate, etc.
- ❖ Assess support systems — family, friends, neighbors, care taker, etc. to assist with food purchasing, meal preparation, etc.
- ❖ Consider cultural practices or alternative therapies which may impact nutritional status.

Follow-up assessments should be done bi-weekly to monthly, depending on the health status of the client with HIV. Dietary interventions should then be adjusted accordingly as symptoms improve or change.

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Nutrition Screening Assessment Package

The following assessment tools can be used to screen and assess nutritional status. There are four separate tools that can be used either together or individually to provide nutritional care to people with HIV.

These are the assessment tools:

- 1. Quick Nutrition Screen (QNS):** This is the place to begin any assessment. These 27 questions are related to common nutrition issues that are important to anyone with HIV. The client can fill out the questionnaire with or without assistance. Each of the questions is supported by a short "nutritional screen note" which provides additional information supporting that question. These are designed to give basic support information about why this issue is important to the HIV-positive client's nutritional health. These one page "Notes" can also be copied to use as patient education handouts during counseling.
- 2. Food Intake Record (FIR):** This form is used to collect a diet history. The client fills out what is eaten on a usual day. A space is provided for the client and the provider to evaluate what has been consumed (both food and drink) with a recommended guide for the food groups which is targeted specifically for the individual with HIV.
- 3. Nutrition Assessment Tool (NAT):** This tool can be kept in the client medical record as a way to keep track of key issues that are related to the nutritional health of an individual. These are the minimum kinds of data that should be tracked at each visit. Some clinics will have additional clinical information that they may record on a regular basis. This form can be used as is or adapted to the clinic setting.
- 4. Food Resources In Your Community:** This worksheet can be used to record the various kinds of community organizations or agencies where people can get food. It should be filled out, duplicated, and made available to all health care providers and client advocates.
- 5. Nutrition Services Screening/Referral Form:** This form is to be used by healthcare providers in referring clients to a Dietitian or other Nutrition Professional (see Section 9-5).

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Quick Nutrition Screen

For each statement below, circle the **YES** column for those that apply to you and the **NO** column for those that do not.

- | | | |
|--|------------|-----------|
| 1. Without wanting to, I have lost 10 pounds or more in the last 6 months | Yes | No |
| 2. I have problems eating because of my current health status | Yes | No |
| 3. I eat less than 3 times a day | Yes | No |
| 4. I eat meat or other proteins like beef, poultry, peanut butter, dried beans,
etc. less than 3 times a day | Yes | No |
| 5. I eat bread, cereals, rice, pasta, etc. less than 4 times a day | Yes | No |
| 6. I eat fruits or vegetables or drink juice less than 3 times a day | Yes | No |
| 7. I drink/eat milk products like milk, cheese, yogurt etc. less than 2 times a day | Yes | No |
| 8. I have 3 or more drinks of beer, liquor or wine almost every day | Yes | No |
| 9. I don't always have enough money to buy the food I need | Yes | No |
| 10. I do not have any place to cook or to keep my foods cold | Yes | No |
| 11. I do not take any vitamin and mineral supplements | Yes | No |
| 12. I often have one or more of the following: <i>(circle all that apply)</i>
<i>diarrhea, nausea, heartburn, bloating, vomiting, no/poor appetite, feel too tired</i> | Yes | No |
| 13. I take one or more of the following medications: <i>(circle all that apply)</i>
<i>AZT, ddI, ddC, d4T, 3TC, INH, antibiotics, pentamidine, Abacavir, Rescriptor,</i>
<i>Viramune, Sustiva, protease inhibitors, Viriad, Trizavir, Amprehavir</i> | Yes | No |
| 14. I smoke cigarettes, cigars, or chew tobacco every day | Yes | No |
| 15. I often don't feel like eating, food shopping, or cooking | Yes | No |
| 16. I have problems when I eat or drink milk products (cramping) | Yes | No |
| 17. I have problems with my stomach when I eat high fat foods | Yes | No |
| 18. I have tooth, swallowing, or mouth problems (like thrush)
that make it hard for me to eat | Yes | No |
| 19. I have to watch what I eat because of a health problem like: <i>(circle all that apply)</i>
<i>diabetes, high blood pressure, kidney or liver problems, cancer or high lipids</i> | Yes | No |
| 20. For women: I am pregnant or breast feeding | Yes | No |

Continued on next page....

Quick Nutrition Screen

Additional Questions

21. At least one of the following are true:
I think the shape of my body is changing
My arms and legs are getting thinner and I can see my veins
My belly is getting bigger
My neck has a hump
I have lost my "rear" **Yes** **No**
22. Without wanting to, I have gained extra weight **Yes** **No**
23. Sometimes I feel too weak to do the things I want (cook, shop, clean-up, etc.)..... **Yes** **No**
24. I'm not as interested in sex as I used to be **Yes** **No**
25. For men: I have more difficulty getting an erection than I used to **Yes** **No**
26. My mood is low more often these days **Yes** **No**
27. I don't feel able to change my diet to make it better **Yes** **No**

Total number of **YES** answers:

You now have a Nutrition Score. *Share it with your health care provider.* If you have any "YES" answers, you may need more nutritional help. The more "YES" answers, the more concern there may be. Talk this over with your health care provider.

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Quick Nutrition Screen

Question

1

More information about your YES answers.

Without wanting to, I have lost 10 pounds or more in the last 6 months.

Sometimes dropping a few pounds seems like a good idea. This is not the case when you have HIV. One of the first symptoms that something may be wrong for people with HIV is loss of weight. In fact it is a good idea to have a few pounds of extra weight rather than to be too thin. If you have lost any weight be sure to talk to your health care provider about it. If there is an HIV-knowledgeable Registered Dietitian / or other Nutrition Professional, ask to see them. You cannot afford to wait too long when it comes to unwanted weight loss.

See handouts:

Healthy Weight 3-3

Using Caloric Supplements 3-11

High Calorie Meal Plan 4-3

High Protein Meal Plan 4-5

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Quick Nutrition Screen

Question

2

More information about your YES answers.

I have problems eating because of my current health status.

Not feeling well for whatever reason often causes us to not want to eat. If you have been sick lately you may not feel like eating at all. A recent opportunistic infection, the flu or even a cold might be a reason for not eating. Feeling depressed might also be a reason for not eating. Other problems might be related to the medicines you are currently taking.

There are many health-related problems that can affect an individual's ability to eat. It is really important that you try to find out why you are not eating. There is information and help available for almost any problem you might be having. Talk this over with your health care provider and get some help. Eating is one of the most important things you can do to stay well and feel better. Don't wait until you have lost weight to get help with any eating problem you might have.

Common Reasons For Eating Problems

Loss of Appetite (sometimes called “anorexia”) 4-31, 4-32

Feeling Full Too Fast

Sore Mouth, Throat (Thrush) 4-34, 4-35

Nausea, Vomiting 4-36, 4-37

Diarrhea and/or Constipation (many people become afraid to eat when they have the runs or can't go to the bathroom) 4-39, 4-33

Difficulty Swallowing (sometimes called “dysphagia”)

Dry Mouth

Taste Changes (such as bitter or metallic)

Fatigue (feeling too tired)

Fever, Night Sweats

Weight Loss

Bloating, Gas, Heartburn or other digestive problems

Depression

Dehydration

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Quick Nutrition Screen

Question

3

More information about your YES answers.

I eat less than 3 times a day.

People who eat at least three times a day are more likely to get the calories and nutrients they need to maintain good health. Most people cannot eat enough at any one sitting to meet nutrient needs for the whole day. Because HIV causes your body to need additional nutrients, eating more frequently is even more important. An added benefit with more frequent meals is maintenance of muscle mass. (See *Health Assurance: Exercise* page 3-5)

It can be a real challenge to get the 50 plus nutrients (calories, protein, vitamins & minerals) needed for good health when you eat infrequently. The following are common reasons why people do not eat at least three times a day. Look at the following list of reasons why people do not eat often enough. If any of them apply to you, you can get additional information:

Stomach empties slowly
Feel full too fast
Fats delay stomach emptying
Poor appetite
Poor food access or lack of adequate money
Medications
Hectic or stressed schedule
Any of problems listed under question #2

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Quick Nutrition Screen

Question

4

More information about your YES answers.

I eat meat and other proteins like beef, poultry, peanut butter, cooked dried beans etc. less than 3 times a day.

This is the big protein issue. It is very important that you get enough protein in your diet in order to keep all of the muscle mass that you can. The foods listed in this question are the major protein sources. If you do not eat these foods at least three times a day it is possible that you may not get all of the protein that you need. The most important issue here is that you are getting an adequate amount of protein daily to meet your body's needs for maintenance and growth. Here are a few ways to determine if you are getting the protein that you need.

Write down the foods you eat every day. You can use the food record form, or write it down on a piece of paper. Then compare your intake with the recommended intake.

You may need at least 3-4 servings of protein foods. Look at the "Food Guide Pyramid" (Section 8) to get an idea of foods that have protein and how much is a serving size.

Have your health care provider review your food intake record.

Ask if there is an HIV-knowledgeable Registered Dietitian or other Nutrition Professional available to talk to you.

If you are a vegan, that is, you eat only plant foods, you will need to take extra care to make sure you get enough protein every day. See Pages 4-19 through 4-30 for more information.

Good Sources of Protein

Chicken	Milk	Beans	Peas
Turkey	Milk Products (like yogurt & cheese)	Soy	Nuts
Fish		Soy Milk	Seeds
Beef		Tofu & Other Soy Products	Nut & Seed Butter
Pork			

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Quick Nutrition Screen

Question

5

More information about your YES answers.

I eat bread, cereals, rice, pasta, etc. less than 4 times a day.

We are talking primary energy for the body here. One of the most important nutrients is carbohydrate. It is important to eat some carbohydrate food every time you eat. If you do not eat these energy providing foods at least 4 times a day, you may not be getting the carbohydrates that your body needs. Carbohydrates are important in order to use other nutrients like protein, vitamins and minerals to the best advantage. In addition to energy, most of the carbohydrate foods have some protein and fiber, as well as vitamins and minerals. Here are a few ways to determine if you are getting the carbohydrates that you need.

Write down the foods you eat every day. You can use the food record form, or write it down on a piece of paper. Then compare your intake with the recommended intake.

You need at least 8 servings of carbohydrate foods. .

Eat good sources of fiber daily. Fiber helps you have regular bowel movements, can help lower cholesterol and triglycerides and may help keep blood sugars under good control.

Have your health care provider take a look at your food intake record.

Ask if there is an HIV-knowledgeable Registered Dietitian or other Nutrition Professional available to talk to you.

Good Sources of Fiber

Fruits	Whole Grain Cereals	Oatmeal
Vegetables	Whole Wheat Cereals	Whole Grains & Legumes
Whole Grain Breads	Cooked Beans	

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Quick Nutrition Screen

Question

6

More information about your YES answers.

I eat fruits or vegetables, or drink juice less than 3 times a day.

Eat your fruits and veggies! Mom has been telling you this for years. Fruits and vegetables are the best way to get most of the vitamins and minerals that you need. If you do not eat fruits or vegetables at least three times a day, you will probably not get the vitamins and minerals that your body needs. Ideally, aim for at least 5 servings of fruits and vegetables combined everyday. Eating fruits and vegetables with other foods, like the protein foods and the energy foods, helps your body to use all of the nutrients it is getting to the best advantage. If diarrhea is a problem, this recommendation may need modification. See an HIV-knowledgeable Registered Dietitian or other Nutrition Professional for guidance.

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Quick Nutrition Screen

Question

7

More information about your YES answers.

I drink/eat milk products like milk, cheese, yogurt, etc. less than 2 times a day.

Milk is an important source of many of the nutrients that you need, including calcium, protein, riboflavin, vitamin A, and vitamin D. Everybody needs calcium on a daily basis, but getting enough calcium can be very difficult if you are not consuming milk and other dairy products. All women, especially pregnant women, need at least 4 servings of milk or dairy products everyday.

If you cannot drink milk or eat cheese or other products made from milk, ask for some information about how to get calcium from other foods. Remember, these foods can also be good protein sources. If you are not including milk or dairy products in your diet, be sure you are getting adequate protein from other sources. You might also check to see if you have a problem called lactose intolerance which means that your body does not digest milk right. Try lactose-reduced or lactose-free milk and dairy products or lactose digesting enzymes. Ask your health care provider about them.

Some Plant-Based Sources of Calcium

Food	Serving Size	Calcium/serving
Pinto Beans	1/2 cup	45 milligrams
Turnip Greens	1/2 cup	99 milligrams
Tofu (with calcium sulfite)	1/2 cup	258 milligrams
Orange juice (fortified with calcium)	6 ounces	260 milligrams

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Quick Nutrition Screen

Question

8

More information about your YES answers.

I have 3 or more drinks of beer, wine, or liquor almost every day.

Too much alcohol changes the way your body works. For example, alcohol increases the need for some vitamins and minerals to help the liver get rid of toxins from the alcohol. At the same time it depletes nutrients you have already stored in your body. Alcohol also irritates and damages the digestive tract and interferes with the absorption of food that you eat. Further, people who have 3 or more drinks may replace meals with alcohol, while not taking in any additional nutrients.

Alcohol also has been shown to be immune-suppressive and may lower CD4 counts.

Alcohol and the liver:

- Alcohol, medications and drugs make the liver work harder.
- Many anti-HIV medications should not be taken with alcohol.
- Alcohol intake should definitely be avoided if you have high triglycerides, hepatitis, or inflammation of the liver caused by the virus.

If you are concerned that you may be drinking too much, check with your health care provider.

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Quick Nutrition Screen

Question

9

More information about your YES answers.

I don't always have enough money to buy the food I need.

Make sure that your health care provider knows that you do not have enough money to purchase food. Most communities have organizations and programs to help provide food and money in the short-term (emergency) and long-term. Here are some ideas:

Emergency Food Pantries/ Food Banks

A food bank or emergency food pantry provides a limited supply of food to people in need. Some will give food vouchers which can be used to buy food at a grocery store. A written referral from a social worker or health care provider to show need is often required. Emergency food pantries/ food banks are often run by churches and other community service agencies. Some major food banks include:

- Project Angel Food (Los Angeles)
- Project Open Hand (San Francisco)
- God's Love We Deliver (New York)
- MANNA (Philadelphia)
- Meals On Wheels (Nationally)

Food Stamps

Food stamps are vouchers that can be used to buy food at most grocery stores. They are issued monthly and given free to those who qualify. To see if you qualify call the nearest Department of Social Services or Human Services office in the county where you live.

Soup Kitchens

Some communities have soup kitchens which provide hot or ready-to-eat meals on a walk-in basis to people in need. Soup kitchens are found in some churches and community centers.

Women, Infants and Children (WIC)

A supplemental food and nutrition program for women (pregnant or post-partum), infants and children. To see if you qualify, ask your health care provider for a referral.

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Quick Nutrition Screen

Question
10

More information about your YES answers.

I do not have any place to cook or to keep my foods cold.

Not having a place to cook or store food can present a real problem to your health unless you are eating out, or staying with someone. Be sure your health care provider knows your situation. Many communities have places people can go for help with food and shelter. In the meantime there are some foods that do not need to be cooked or stored at any particular temperature. Ask for information about ideas of how to eat these kinds of foods.

Foods that don't require stove, oven, or refrigeration

- | | |
|--|---|
| Peanut butter/jelly sandwiches
<i>(jelly needs refrigeration after opening)</i> | Commercial breakfast bars and supplement bars |
| Raisins, dates, figs, other dried fruits | Dry ready-to-eat cereals |
| Canned fruit in heavy syrup, applesauce
<i>(refrigerate if left over)</i> | Liquid supplements like Ensure, Boost, Lipisorb, Nutren <i>(refrigerate if leftover - should not be stored for more than 24 hours after opening or mixing - needs to be consumed quickly)</i> |
| Peanuts, cashews, almonds, and other nuts | Evaporated milk, condensed milk, or boxed soy milk <i>(refrigerate if leftover - should not be stored for more than 24 hours after opening or mixing - needs to be consumed quickly)</i> |
| Pumpkin and sunflower seeds | Single servings of canned fruits and juices |
| Crackers: saltines, ritz, graham crackers | Beef, chicken or turkey jerkey |
| Rice cakes, pretzels, bread sticks, bagels | |
| Trail mix, granola bars, angel food cake | |
| Single servings of canned tuna, chicken, ham, sardines or other canned meat products
<i>(refrigerate after opening)</i> | |
| Bananas, apples, pears, oranges | |

Requires stove/hot plate/microwave but no refrigeration (unless leftover)

- Canned creamed corn, spaghetti, stews, chili
- Canned soups *(creamed, bean)*
- Canned beans or peas and rice
- Canned yams *(can add butter and sugar)*
- Instant grits, oatmeal, cream of wheat
- Boxed macaroni and cheese mix
- Hot cocoa mix *(can add marshmallows)*
- Popcorn *(use butter or margarine to flavor)*
- Baked potatoes *(use microwave or oven)*
- Mashed potatoes *(add non-fat dried milk and butter or margarine)*

Requires refrigeration but no stove/hot plate/microwave

- Juices - V-8, orange, apple, cranberry, grape, etc.
(after opening)
- Many fresh fruits
- Some fresh vegetables *(carrots, etc.)*
- Nectars - apricot, pear, etc. *(after opening)*
- Carnation Instant Breakfast *(after mixing)*
- Cottage cheese *(add flavor with fruit)*
- Yogurt
- Instant puddings
- Cheese with crackers or bread
- Sandwiches with cold cuts and cheese

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Quick Nutrition Screen

Question

11

More information about your YES answers.

I do not take any vitamin and/or mineral supplements.

All people with HIV disease have increased needs for vitamins and minerals. You will probably need to take a multi-vitamin/mineral supplement daily in the morning and evening. Research also has shown that you can become deficient in certain vitamins and minerals, such as vitamin B-12, folate, vitamin B-6, zinc and selenium. Growing evidence indicates that beta-carotene, vitamin E and vitamin C may be important too.

Not taking at least one vitamin and mineral supplement daily can put you at additional nutritional risk. Remember to space out your multi-vitamin/mineral supplement by taking one each morning and evening. If you take all of your supplements at once, the body only uses what it needs. This is especially true for water-soluble vitamins. (B-vitamins, Vitamin C) with the end result being very expensive vitamin-rich urine!

Some clinicians routinely recommend a daily B-complex supplement along with the multiple vitamin-mineral supplement with antioxidants and without iron. Check your supplement's label.

Check with your provider for a referral to a local resource, which will supply supplements for free or at a low price. These resources may be your clinic, your pharmacy, a buyers club, AIDS Drug Assistance Program (ADAP), Medicaid, or a community service organization.

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Quick Nutrition Screen

Question

12

More information about your YES answers.

***I often have one or more of the following:
diarrhea, nausea, heartburn, bloating, vomiting,
no/poor appetite, or feel too tired.***

This is the stuff that keeps us from eating, and are common symptoms for people with HIV/AIDS. Any one of them can keep you from eating and getting the food and nutrients that you need. A combination of any of these problems is common and can cause real problems with nutritional health.

The following is a list of handouts that you can get on each of these topics. Ask for them. They may help you figure out how to feel better, and be able to eat more comfortably.

Handouts are available on:

Diarrhea
Nausea
Heartburn
Bloating
Vomiting
No/poor appetite
Fatigue (feeling too tired)

Keep learning all you can about good nutrition and health. After all it is your life...enjoy every minute of it.

Quick Nutrition Screen

Question

13

More information about your YES answers.

***I take one or more of the following medications:
AZT, ddI, ddC, d4T, 3TC, INH, antibiotics, pentamidine,
Abacavir, Rescriptor, Viramune, Sustiva, protease inhibitors***

Any of these medicines can make you feel sick and not want to eat. Some of the common side effects of these medicines are dry mouth, diarrhea, nausea, and vomiting. In addition, some of these medicines may change the way food tastes. If you are taking any of these or other medications and have any of these problems, talk with your health care provider about it. There are some tips available for coping with these symptoms. Ask for more information about any one of these issues. Ask for the chart on the nutritional side effects of some medicines used for HIV. See if any of the medicines you are taking might be making you feel sick.

Medicines that might make you nauseous:

Zidovudine (AZT, Retrovir)
Didanosine (ddI, Videx)
Zalcitabine (ddC, Hivid)
Stavudine (d4T, Zerit)
Lamivudine (3TC, Epivir)
Delavirdine (DLV, escriptor)
Nevirapine (Viramune)
Sustiva
Sulfadiazine
Pyrimethamine
Acyclovir
Ganciclovir (DHPG)
Nystatin
Amphotericin B
Clotrimazole lozenges

Medicines that might give you the "runs":

Didanosine
Zalcitabine
Stavudine
Lamivudine
Sulfadiazine sodium
Pyrimethamine
Ampicillin (other antibiotics)
Nystatin
Ketoconazole
Acyclovir
Viracept
Invirase

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Quick Nutrition Screen

Question

14

More information about your YES answers.

I smoke cigarettes, cigars, or chew tobacco every day.

Tobacco can be a problem for the immune system. If you use tobacco, think about cutting back or quitting. Smoking alters the lung's ability to fight off infection. Smokers often get bronchitis, pneumonia, and sinusitis. Smoking damages the respiratory system and makes it less able to fight infection. Smokers are also more likely to get a respiratory infection than nonsmokers because smoking decreases the T-helper cells and increases the T-suppressor cells. This alters the helper/suppressor CD4/CD8 ratio in the lungs which further reduces the ability of the lungs to fight off infection. This change may also occur in the blood. Heavy use of marijuana can also produce these changes. The lungs usually can prevent the deposit of damaging materials on their tissues. However, smoke inhaled directly into the lungs causes damage to this process. Smoking also decreases the availability of vitamins B-6, B-12, C, and folic acid. You can get more information about this and find out ways to stop smoking by asking your health care provider or case manager.

More reasons to cut out smoking:

Smoking cuts down on your appetite and how much food you eat. Your caloric and nutrient intake may suffer.

For some people, smoking triggers an increase in the amounts of coffee and alcohol you drink.

Smoking harms your taste buds and changes the taste and smell of foods and drinks.

Smoking greatly increases the risk of heart disease, which has become a new potential complication with metabolic changes (increased blood cholesterol, triglycerides, and blood glucose) from combination drug therapies.

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Quick Nutrition Screen

Question
15

More information about your YES answers.

I often don't feel like eating, food shopping or cooking.

Feeling sick is a big problem. Sometimes not feeling like doing the food shopping or cooking can also lead to not eating. This can be a nasty little circle that ends in getting sick or sicker. If you are physically unable to shop or cook for yourself get some help, try home-delivered meals, or have a friend shop and/or cook for you. Not feeling like doing these tasks is not the same as not being able to do them for some physical reason. If you feel like you do not care and do not want to do anything you may be suffering from depression. Very few people with HIV escape depression. If depression persists you will need to get help. Do not wait... tell your health care provider or even a friend how you feel and ***get help now.***

Keep learning all you can about good nutrition and health. After all it is your life...enjoy every minute of it.

Quick Nutrition Screen

Question

16

More information about your YES answers.

I have problems when I eat or drink milk products.

The dairy dilemma. Problems in this case are often bloating, gas, cramping and diarrhea. This is a common problem for people whose gut is out of whack. The most common reason for this problem is something called lactose intolerance. This means that the body is not able to digest and absorb lactose — the sugar found in milk and many dairy products. There are many people who cannot digest milk at all. Sometimes you can eat hard cheese or yogurt. There are a couple of products available (such as Lact-Aid® and Dairy Ease®) that can be added to milk or taken just before drinking milk that help with this. Many grocery stores carry these products, you do not need a prescription to buy them. Check them out. In addition, Ener-g Foods, Inc. (1-800-331-5222) has many different kinds of milk substitutes including a non-fat dry, lactose-free milk product. They may be right for you.

Keep learning all you can about good nutrition and health. After all it is your life...enjoy every minute of it.

Quick Nutrition Screen

Question

17

More information about your YES answers.

I have problems with my stomach when I eat high fat foods.

A common problem for people with HIV is a stomach that is sensitive to foods. Often the problem is related to fat. Fat in food is harder to digest than other nutrients. It may take longer for food to leave the stomach for people with HIV. Sometimes the lining of the intestine gets messed up and causes food not to be absorbed as well. If this is a problem for you ask for more information about how to deal with this problem. There are foods that you can eat that are good for you and have less fat in them.

Avoid fried foods
Eat broiled, baked, or boiled foods
Use fats and oils sparingly

Keep learning all you can about good nutrition and health. After all it is your life...enjoy every minute of it.

Quick Nutrition Screen

Question
18

More information about your YES answers.

I have tooth, swallowing, or mouth problems (like thrush) that make it hard for me to eat.

Ouch, it hurts to eat. This is a common problem that may be the reason that you do not eat as much as you should. Sometimes bad gums and teeth are the problem. Be sure to see a dentist, and get better dental care. Some of the common symptoms of HIV happen in the mouth. Candidiasis (thrush) is a very common condition that people get. It can be treated with medicine. While you have these problems with your mouth you still need to eat. Ask for more information about this. There are lots of tips that might help.

Tips For Dealing With Tooth, Swallowing, or Mouth Problems

Gargle with warm water and baking soda several times per day. Do not swallow.

Use a cotton swab instead of a toothbrush if gums are sensitive and/or if brushing is painful.

Use commercial alcohol-free mouthwash that has been diluted with water.

Use a straw to drink liquids.

Eat foods at moderate temperatures.

Eat low acid foods.

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Quick Nutrition Screen

Question
19

More information about your YES answers.

***I have to watch what I eat because of a health problem like:
diabetes, high blood pressure, kidney or liver problems.***

If you have any one of these illnesses you already need special nutrition help. If you have HIV as well, it could make the problems worse. Be sure that you tell your health care provider if you have any of these health problems.

Ask if there is a Registered Dietitian / or other Nutrition Professional available to talk to you. If not, call 1-800-366-1655 and ask for an HIV-knowledgeable Registered Dietitian/ Nutritionist in your area.

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Quick Nutrition Screen

Question
20

More information about your YES answers.

I am pregnant or breastfeeding.

There are special nutrition considerations for women with HIV. Be sure to read about these; ask your health care provider for information. Basically, pregnant women and nursing mothers need more calories and other nutrients just for pregnancy and breastfeeding. If you are pregnant and also have HIV, be sure to request a visit with an HIV-knowledgeable Registered Dietitian or other Nutrition Professional. If you can not find one you can call 1-800-366-1655 and ask for help in finding someone to talk to about your diet.

Breastfeeding takes even more calories than pregnancy, and is not recommended if you are HIV-positive. Further, there is a risk of HIV transmission via breastmilk. In the U.S. where we have good sanitation, clean water and the ability to properly prepare formula, it is recommended that you bottle feed with formula. You can request additional information that is available in this manual that goes with this assessment. It is our recommendation that you bottlefeed if you are HIV-positive.

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Quick Nutrition Screen

Question
21

More information about your YES answers.

***I think the shape of my body is changing.
My arms and legs are getting thinner & I can see my veins.
My belly is getting bigger.
My neck has a lump.
I have lost my "rear".***

These body shape changes are possible side effects of the HIV virus and/or the medications to help fight the virus.

Tell your doctor about any changes you notice and start tracking your weight, and the size of your waist and clothing. Eating a healthy diet and getting regular aerobic and resistance exercise are ways to help your body be in the best possible shape.

There are studies under way that may come up with a treatment for these body changes.

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Quick Nutrition Screen

Question
22

More information about your YES answers.

Without wanting to, I have gained extra weight.

Make sure that your diet is healthy and you are getting regular exercise.

Talk with your health care provider about the extra weight you are gaining.

A Registered Dietitian or other Nutrition Professional can assist you to develop a healthy meal plan and ways to improve your exercise habits that can help shed the extra pounds safely.

Keep learning all you can about good nutrition and health. After all it is your life...enjoy every minute of it.

Quick Nutrition Screen

Question
23

More information about your YES answers.

***Sometimes I feel too weak to do the things I want
(cook, shop, clean the house).***

It is important to listen to your body. Rest when you are tired.

Try to eat enough food for extra energy.

Tell your health care provider about your lack of energy.

There may be a medical reason.

Let others help you. There are also community resources

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Quick Nutrition Screen

Question

24

More information about your YES answers.

I'm not as interested in sex as I used to be.

Sex is an important part of each person's life. If your interest in sex has dropped off lately, it may be due to low levels of sex hormones and this can be treated. It also may be due to depression.

Talk with your health care provider to find out what is the best action for you.

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Quick Nutrition Screen

Question
25

More information about your YES answers.

***For men: I have more difficulty getting
an erection than I used to.***

Having problems getting and keeping an erection may be due to a number of factors. It may be due to low levels of male hormone (testosterone) or a variety of other causes.

Talk with your health care provider to figure out the underlying reasons and the best action to take for you.

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Quick Nutrition Screen

Question

26

More information about your YES answers.

My mood is low more often these days.

Everyone has bad days. Each person deals with stress and sad things differently. If your bad days are every day, it may be due to depression or a side effect of your medications.

Talking with your health care provider can help find the right treatment for you. It is important to get help.

Keep learning all you can about good nutrition and health. After all it is your life...enjoy every minute of it.

Quick Nutrition Screen

Question

27

More information about your YES answers.

I don't feel able to change my diet to make it better.

There may be so many things going on in your life that your diet is not the first thing you are thinking of.

Try to make a list of things you can change or control and those you cannot.

Talk to a Registered Dietitian or other Nutrition Professional who can help you come up with an eating plan that works for you.

Consider a support group or individual therapy to examine specific changes you might need to make and how.

Remember that eating should be enjoyable, not a chore, but you need to eat.

Keep learning all you can about good nutrition and health. After all it is your life...enjoy every minute of it.

Nutrition Assessment Tool

Name	Date Of Birth
-------------	----------------------

Height	Weight in Pounds	6 Months	One Year
Ft. In.	Usual Adult	Ago	Ago

Record Information for Every Visit

Date of Visit	/ /	/ /	/ /	/ /	/ /
Weight					
CD4 or Viral Load					
Hematocrit/Hemoglobin					
Albumin					

Do you have problems with any of the following? Check at every visit for changes:

Date of Visit	/ /	/ /	/ /	/ /	/ /
Chewing and/or swallowing					
Nausea/vomiting					
Gas/bloating					
Diarrhea					
Constipation					
Heartburn/indigestion					
Food dislikes					
Taste perceptions/changes					
Dry mouth					
Mouth sores					
Persistent gum infections					
Appetite changes					
Fatigue					
Fever > 100°/nightsweats					
Allergies to Food					
Depression					

The following is a list of things you might have or do that could effect your nutritional health

Date of Visit	/ /	/ /	/ /	/ /	/ /
DO YOU Follow a special diet <i>macrobiotic, vegetarian, immune booster</i> Please LIST	<input type="checkbox"/> Yes <input type="checkbox"/> No				
Take food supplements like <i>Ensure, Boost, Advera, Nutren</i> Please LIST	<input type="checkbox"/> Yes <input type="checkbox"/> No				
Take vitamins and minerals <i>(Look at bottles or labels)</i> What kind? Please LIST	<input type="checkbox"/> Yes <input type="checkbox"/> No				
Use other kinds of therapies <i>massage, acupuncture, herbal therapy</i> Please LIST	<input type="checkbox"/> Yes <input type="checkbox"/> No				

Check the situation that best describes your living conditions:

I live in a: Private home/condo Apartment Congregate facility Shelter Have no place to live

I live: Alone With family/partner Partner and children Other adults With friends In an institution

Food Resources In Your Community

Sometimes getting access to food is a problem. Most communities have some type of food help available. Listed below are the kinds of agencies that can help. Fill in the information for your community or area.

Food Stamps

Agency Name	Contact Person	Telephone
Address	City	State Zip

Notes:

Food Banks / Food Pantries

Agency Name	Contact Person	Telephone
Address	City	State Zip

Notes:

Soup Kitchens

Agency Name	Contact Person	Telephone
Address	City	State Zip

Notes:

Home Delivered Meals

Agency Name	Contact Person	Telephone
Address	City	State Zip

Notes:

WIC Program

Agency Name	Contact Person	Telephone
Address	City	State Zip

Notes:

Churches, Salvation Army, Local Charitable Institutions

Agency Name	Contact Person	Telephone
Address	City	State Zip

Notes:

Agency Name	Contact Person	Telephone
Address	City	State Zip

Notes:

Nutrition: When You Are Positive

Health Assurance: First Steps in Getting Started

Learning that you are HIV-positive is a trauma at best. Once you are over the initial shock, it is time to decide to take action. Learn all you can about the disease. A good resource is Project Inform. You can reach them at 1-800-822-7422. Ask them for the discussion paper #1, "*An Overview of HIV and Steps You Can Take.*"

One of the things you can do is make choices about what you eat. What you eat can make a big difference in the health of your immune system.



Keep eating, it is good for you!!! Decide now that you will take control of what you eat. Here are some ideas:

❖ ***The first thing to do is figure out if you are eating what you should.***

Write down what you eat every day for a few days.

Check it against the Food Guide Pyramid. Be sure most of your choices are from the bottom of the pyramid.

❖ ***Okay, so you don't eat like you should.*** Don't panic. Most of us feel that we don't eat right. Decide to make a few changes. One at a time!

Here are some ideas:

1. **Keep it simple.** Don't try to change your eating habits all at once. Make one change at a time. For example, if you do not eat any fruits, choose one you like and eat it every-day, for a week or two. Then try adding a second fruit, or juice, or nectar.
2. **Eat food that you like.** It is pointless to try to eat stuff that might be healthy, but that you don't like. You won't enjoy eating and it will become a chore. This is a quality of life issue. Don't eat what you don't like.
3. **Be kind to yourself.** Have a treat. As long as you eat your fruits and veggies, an occasional snack of Oreos or other favorite treats won't hurt you.
4. **Always have your favorite foods available.** Find some comfort foods and keep them on hand. When you feel bad treat yourself. You deserve to eat what you want. Be cautious about eating favorite foods during times of nausea because you may turn yourself off to them.
5. **Avoid going on special diets that promise miracle cures.** Learn to check stuff out for yourself and make decisions that will help keep you healthy. If there is a real cure, why isn't everyone cured!
6. **If you have a problem with figuring out what to eat, look at pictures in magazines and try some of the recipes.** There are lots of ideas in this manual.

Keep learning all you can about good nutrition and health. After all it is your life...enjoy every minute of it.

Nutrition: When You Are Positive

Health Assurance: Reduce Stress – Learn to Chill

We don't always get to choose what happens to us. We can, however, choose how we deal with it. There is no doubt that living with HIV is a major stressor. Getting your head together is a major part of the health assurance plan.



There is enough evidence to establish a direct link between stress and changes in the immune system. Studies have shown that people who experience major stressful life events are unable to fight off disease as well as those people without the excess stresses.

Depression and despair have been shown to be physically harmful. In fact, a common symptom of stress is depression. This can decrease your health status and lead to various HIV-related symptoms. If you are depressed be sure to talk to your primary health care provider about it. Many people with HIV take medications to help them cope with depression.

Most of us worry about one thing or another, but we can learn to cope with stress better. Here are a few ideas that others have found to be helpful.

- ❖ *Have a “take charge” attitude and get out of stressful and unproductive situations.*
- ❖ *Be "tuned in" to your own emotions and physical needs.*
- ❖ *Talk openly about your illness, but don't dwell on it. It shouldn't be the only thing in your life important enough to compulsive about.*
- ❖ *Take responsibility for your own health; use the guidelines in this book for your nutritional plan.*
- ❖ *Take an active role in your treatment and view yourself as a partner with your health care provider.*
- ❖ *Get involved in helping other people with HIV/AIDS.*
- ❖ *Focus on living fully. It's not how **long** we live but how **well** we live that really matters.*
- ❖ *Attend social support groups; social interaction is very helpful.*
- ❖ *Exercise (See handout "Health Assurance: Exercise").*

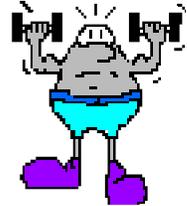


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Nutrition: When You Are Positive

Health Assurance: The Healthy Weight Gain Program

If you have lost weight, a reasonable goal is to try to get back to your own healthy weight. A healthy weight is a weight that you have been at before, where you felt good, strong and had energy, and didn't have to starve or stuff yourself to stay at that weight.



- ❖ It is very helpful to have your body composition measured early and routinely in order to know how much of your weight is composed of muscle and organs, and if that weight changes. This can be done by Bioelectrical Impedance Analysis (BIA). BIA involves using a machine that delivers a small amount of electric current (it does not hurt at all!) that will give an estimate of muscle and fat tissue stores. Many physicians' offices and health care clinics have access to these machines. Ask your health care provider to arrange BIA testing for you.
- ❖ What did you weigh when you felt your best? Maintaining your own healthy weight is more important than being at the exact "Ideal Weight" for your height that are listed on charts.
- ❖ If you have always been very thin, you will probably never be a big person, but you may be able to gain extra pounds of "insurance" of both muscle and body fat.
- ❖ If you have lost weight, it is very important to work closely with your health care provider and Registered Dietitian or other Nutrition Professional. They will try to find out what is causing you to lose weight, ways to stop the weight loss and ways to regain weight the right way.

Foods or supplements to help increase your intake of calories and nutrients include:

- ❖ Home-made high calorie, high protein shakes
- ❖ Commercial nutritional supplements (e.g., Carnation Instant Breakfast®, Benefit®, Ensure®, Scandishake®, Boost High Protein®, NuBasics®)
- ❖ Pack more calories into your favorite foods by adding additional ingredients (e.g., powdered milk, potato flakes, cheese, etc.)

Some of the treatments shown to be helpful in gaining weight include:

- ❖ Appetite stimulant medications like Megace® or Marinol® to improve appetite. In some states medical marijuana is available and may be helpful.

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Nutrition: When You Are Positive

Things to help your body rebuild or add muscle include:

- ❖ Extra calories and protein from your diet to help with weight gain and muscle growth
- ❖ Prescription testosterone replacements stimulate protein building activity in the muscle. They may be given as shots, patches, creams or gels, and include:
 - Oxandrolone (Oxandrin®)
 - Nandrolone decanoate (Deca-Durabolin®)
 - Testosterone gel (AndroGel™)
 - Oxymetholone (Anandrol®)
 - Recombinant human growth hormone (Serostim®)

Anabolic steroids still require adequate intake and muscle activity to adequately build protein. *These drugs will only work for you if this is what your body needs. You must work with your health care provider to be prescribed the best therapy.*

- ❖ Monitor testosterone in the blood. Normal test levels are:

	<u>Total Testosterone</u>	<u>Free Testosterone</u>
Men:	300-1100 ng/dL	5-21 ng/dL
Women:	10-50 ng/dL	0.10-0.85 ng/dL

- ❖ Keeping viral replication as low as possible.

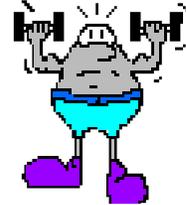
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Nutrition: When You Are Positive

Health Assurance: Exercise

Exercise has been scientifically proven to be beneficial to HIV-positive persons. The benefits of exercise include:

- ❖ Increased strength and endurance
- ❖ Increased lung capacity
- ❖ Increased lean body mass (i.e. muscles)
- ❖ Decreased stress
- ❖ Improved sleeping patterns
- ❖ Improved appetite
- ❖ Improved bowel habits
- ❖ Improved self esteem



Much has been written about the importance of maintaining your weight if you are HIV-positive. But, recently, scientists have learned that building muscles is necessary to maintain good health and actually helps to strengthen the immune system.

Before starting an exercise program, talk to your doctor or health care provider. Once they approve your exercise plans, the key points to remember when starting an exercise program are:

- ❖ You don't need to join a spa or a gym to exercise effectively.
- ❖ In order to tone and condition different muscle groups, try different types of moderate exercises such as climbing stairs, walking, lifting weights, etc.
- ❖ Don't do strenuous exercise like long distance running, cycling, etc.-- especially if you aren't used to it. Immunity can be decreased by heavy exercise and make you more prone to infection. If you overdo it when exercising you might get sick, no matter what kind of shape you're in.
- ❖ Start slowly (10-15 minutes every other day is a good way to start).
- ❖ Increase the length of time that you exercise slowly until you can exercise about 45 minutes a day, emphasize adding muscle mass.
- ❖ Always warm up prior to and cool down after exercising (i.e. stretch and range of motion).
- ❖ Be sure to eat enough food and drink plenty of water when you exercise. Exercise burns calories and you must eat and drink enough to replace the calories and fluids used during exercise. If you don't have enough calories and fluids, you can weaken your immune system.
- ❖ Make a practice of resting when your energy levels become low.
- ❖ Think about how you feel when you finish exercising. You should feel a little tired, but refreshed. If you feel bad in any way, talk to your health care provider.

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Nutrition: When You Are Positive

Health Assurance: Exercise (continued)

Additional benefits of exercise include:

- ❖ Reducing excess body fat.
- ❖ Maintaining weight and building muscle.
- ❖ Controlling blood sugars and blood pressure, lowering cholesterol and triglyceride levels.
- ❖ Improving and maintaining energy levels.
- ❖ Improving heart health.

A Word of Caution...

- ❖ Before beginning an exercise program consult with your doctor.
- ❖ Exercise should be avoided when your body needs energy for fighting an infection (colds, flu, PCP, MAC, etc.) or when you are unable to obtain adequate nutrition (loss of appetite, diarrhea, vomiting, dehydration, etc.) to maintain your weight.
- ❖ In addition to HIV, other medical conditions may limit exercise or require medical supervision (pregnancy, past injuries, obesity, high blood pressure, heart disease, diabetes, asthma, etc.).
- ❖ Check with your doctor whether your medications, including over-the-counter medications and herbal supplements, pose any risks or limitations to exercise.
- ❖ If anything changes in your medical or physical condition, consult again with your doctor about continuing with your exercise program.

Exercise Tips

- ❖ If possible, talk with a physical therapist or certified fitness professional to get the right start. They can help you set up a plan that meets your needs. Also, they can help monitor your progress so that you can reach your exercise goals.

Anaerobic exercises are also called resistance or strength training exercises.

- ❖ Anaerobic exercises usually involve pushing or pulling something heavy using relatively short bursts of energy.
- ❖ This type of exercise helps to increase the size and strength of muscle.
- ❖ Try to include 2 sessions of anaerobic exercises per week with at least 2 days of rest between each session.
- ❖ Try to include in each session 1-3 exercises for each of the major muscle groups: legs, back, shoulder, arms, and the abdominal area.
- ❖ Use enough resistance with dumbbells, exercise bands or your own body weight to tire the muscles within 8-12 repetitions of the exercise movement. Remember to breathe in with the exercise and rest a few moments in-between exercises.
- ❖ Exercises that can be done at home or at a gym include: arm curls, shoulder raises, push-ups, leg lifts, squats and crunches,

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Nutrition: When You Are Positive

Aerobic Exercises

- ❖ Aerobic exercises involve mostly the legs, require a certain amount of energy produced over a period of time and cause you to breathe harder than usual.
- ❖ Examples of aerobic exercises include walking, jogging, skating, swimming and cross country skiing. Bicycling, climbing stairs, and jumping rope are also good aerobic exercises.
- ❖ This type of exercise helps to improve heart and lung function, increases insulin sensitivity, and decreases body fat.
- ❖ It is important to combine both anaerobic and aerobic exercise for a complete workout plan.

Listen to your body!!

Don't push yourself too hard. Relax, breathe, and enjoy yourself. Remember to drink plenty of fluids before, during & after exercise. Pay attention to how you feel when you finish exercising. You may have to decrease the amount of time or number of repetitions if you are very tired. Eat well, hydrate and rest.

Sample Exercise Routine

Warm-Up - Perform light exercise, like walking, to prepare the body for exercising harder.

Stretch - To improve range of motion in your joints, prepare muscles and joints for strenuous exercise, and reduce risk of muscle strains and joint sprains.

Aerobic Exercise - Perform an activity that involves the legs (walking, jogging, biking, etc.) for 20, 30, 40 minutes or longer without running out of breath. Your heart rate and breathing rate should increase, but you should still be able to have a conversation.

Resistance Exercise - Use dumbbells, exercise bands, water bottles filled with sand, or the weight of your own body to exercise the seven major muscle groups:

1. Legs - stair climbing, squats, leg extensions, leg curls
2. Chest - pushups, bench press
3. Back - pulldowns, rowing
4. Shoulders - arm raises, military press
5. Biceps - curls
6. Triceps - extensions
7. Abdominals - crunches

Cool-Down - Perform light exercise, like walking, to bring your heart rate down and cool the body.

Stretch Again - To keep muscles and joints limber, and reduce muscle soreness.

Drink adequate fluids - Drink approximately 4 - 8 ounces every 15 minutes. Drink an extra 16 ounces of fluid for every pound of weight lost after exercising.

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Nutrition: When You Are Positive

Health Assurance: What if You Want to Lose Weight

Losing weight is generally not a good idea for people who are HIV-positive. However, if you are overweight and want to shed a few pounds here are some ideas to try:

- ❖ Limit fat in your diet! Cut down on, or don't eat fried foods, baked goods or processed meats (like bologna, hot dogs, bacon or sausage).
- ❖ If fried foods are the only ones that are available, try to eat as little of the fat as possible. For example, take the skin off of chicken before you eat it, remove the coating off fried fish, and cut visible fat off of any meat.
- ❖ Use smaller amounts of butter or margarine and mayonnaise. These are pure fat. There is no difference in the fat calories between butter and margarine. Some of these condiments are available in lower or non-fat forms.
- ❖ Limit snacks, particularly those that are higher in fat like potato chips, corn chips, tortilla chips, etc. Anything that has been fried will have fat. Try snacks like pretzels or air-popped popcorn.
- ❖ If you use dairy products, choose those that have less fat. For example, drink nonfat (skim) or 1% milk, look for lower fat or nonfat cheeses, and low-fat or nonfat yogurt and cottage cheese. Choose broth-based soups rather than soups that are cream-based.
- ❖ Limit empty caloric snack foods such as soda, kool-aids/fruit drinks, chocolate, other candies, cookies and snack foods high in sugar and calories.
- ❖ Increase activity. Do more walking, or climb up steps instead of riding the elevator. If you drive, park away from where you are going. Walk around your house more. The more you move your body, the more calories you will use up.
- ❖ Muscle building exercises will help prevent wasting. If you don't have free weights try using bricks, canned goods, plastic bottles filled with water, or other items.

Summary

Going on a weight loss diet is risky for people who are HIV-positive. If you do decide you want to lose weight, be smart. Do not go on any diet that uses liquids as a substitute for meals. Check out any diet you might consider with your health care provider. Cutting out the extra fat is often the easiest way to get rid of unwanted calories.



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Nutrition: When You Are Positive

Health Assurance: Alternative Therapies

Alternative therapies, also called "holistic" or "complementary" therapies, can be one of the greatest controversies for clients and health care providers in treating HIV disease. Therapies which many consider alternatives or supplements to traditional treatment include vitamin-mineral supplementation, exercise, special diets, herbs, cleansing and massage therapies, acupuncture, etc. Some of these therapies such as antioxidant vitamins and exercise have been shown in clinical research to have a beneficial effect on the immune system.

Some alternative treatments have been tested and shown to be toxic. Many other therapies have not been tested and little is known about the effects, if any, on our health. Even less is known about how these untested treatments interact with HIV disease and some of the medications commonly taken by HIV-positive people.

One special area of concern is that some therapies are very expensive. You must weigh the benefit of the treatment against the cost. Remember that a lot of people, with a profit motive, will take advantage of others who are looking for a cure or better treatment results and see only an opportunity to make money. Therefore, all the "claims" made about what product or therapy will help are not always true, which makes it even harder for you to decide what is best.

Several therapies which look like they have a good chance to help persons with HIV disease are being tested in HIV clinical trials. A clinical trial is the way researchers study the benefits and risks of using a new treatment for a disease in people. When a product is tested in a clinical trial, scientists try to answer the following questions:

- ❖ **Does it cause harm?**
- ❖ **Will it help?**
- ❖ **How much does it cost?**
- ❖ **Can you afford it?**

If you want to get more specific clinical trials information on a therapy that you are considering, you can call one of these numbers. They will answer your questions and send you information through the mail.

Clinical Trials Information Service 1-800-TRIALS-A

Project Inform 1-800-822-7422

CDC National AIDS Information Clearinghouse 1-800-458-5231



For more information, see Section 10.

Keep learning all you can about good nutrition and health. After all it is your life...enjoy every minute of it.

Nutrition: When You Are Positive

Health Assurance: Vitamin and Mineral Supplements

Vitamins and minerals are substances that your body cannot make and they are needed for survival. Vitamins and minerals are involved in specific reactions in your body and **need to be taken with food** because they must interact with protein, fat and carbohydrates in order to be effective.

Healthy people who eat a variety of food every day usually do not need to take a multivitamin and mineral supplement because they meet their requirements from the foods they eat. If you are HIV-positive, **you need more than what food provides**. This is especially true if you have a poor appetite, skip meals, if your body is fighting off infections, or if you have nausea/vomiting or chronic diarrhea.

Specific vitamin and mineral deficiencies can add to a depressed immune system and may be associated with not eating enough calories and protein.

If you are HIV-positive, you would benefit from taking **two multivitamin and mineral supplement pills daily with food spaced throughout the day**. Take a multivitamin and mineral supplement daily that is at least 100% of the U.S. Reference Dietary Intake (RDI). The RDI is a nutritional standard set by the government for levels people need in order to prevent deficiencies and to maintain health.

Do not take too much. Check the contents to make sure that you do not take very high dosages that can cause side effects. Remember, your body can only use a certain amount at a time. Taking high doses all at once can be expensive and wasteful since the body can't use them and they will be excreted. In addition, if you take too much of some vitamins, you can depress your immune system further.

As HIV disease progresses, research has shown that you can become deficient in certain vitamins and minerals; for example vitamin B-12, folate, vitamin B-6, zinc and selenium. Growing evidence suggests that therapeutic doses of beta-carotene, vitamin E and vitamin C may act as antioxidants to reduce the level of free radicals produced by HIV infection.

See Section 10 for more information on doses of vitamins and minerals.

Keep learning all you can about good nutrition and health. After all it is your life...enjoy every minute of it.

Nutrition: When You Are Positive

Health Assurance: Using Caloric Supplements

Supplemental nutritional foods, beverages, bars and powders can add extra calories, protein and nutrients. They are useful when you are not feeling well, don't feel like eating, or really need to gain extra weight. Ideally, these items are used as an added boost to your regular meals or between meals as a snack. Try to not let these products replace a meal. However, if you just cannot eat for some reason, a supplement is much better than eating nothing. Often, liquid is easier to take than solids.

- ❖ Cans and bars can be very easy to take along with you on the go to make sure you have your needed snack when time runs short.
- ❖ Supplements in powder form can be mixed with a variety of liquids or easily added into foods.
- ❖ Your Registered Dietitian, other Nutrition Professional, or health care provider can help you decide if supplements like these would be good for you and help you choose one.
- ❖ Check to see if your insurance or Medicaid will assist with the cost.

The following is a list of companies that make nutritional supplements, their toll free phone numbers, and some of the products that they make:

NESTLE CLINICAL NUTRITION

1-800-422-2752
www.nestleclinicalnutrition.com

Nu Basic 1.0, Nu Basic 1.5, Nu Basic 2.0, Nu Basic Soups, Nu Basic Bars; Peptimen VHP

MEAD JOHNSON

1-800-457-3550
www.meadjohnson.com

Boost, Boost Plus, High Protein Boost Pudding, Boost with Fiber, Lipisorb

NOVARTIS NUTRITION

1-800-333-3785
www.novartisnutrition.com

Impact Recover, Resource Plus, Resource, Peptinex

ROSS LABS

1-800-227-5767
www.rosslabs.com

Ensure, Ensure Plus, Ensure Pudding, Ensure with Fiber, Advera, Optimental

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Nutrition: When You Are Positive

Health Assurance: What About Common Medications?

When your health care provider gives you a prescription for a medicine, be sure to discuss:

- ❖ Whether the medicine must be taken with or without food, what kinds of food, and how often.
- ❖ What to do if you cannot always follow those instructions.
- ❖ What are the possible side effects, what symptoms to watch out for, and what to do if they do occur.

There are many reasons why medications may be necessary to take. People living with HIV disease often have the same kinds of illnesses and need the same kinds of medicines as people without HIV infection. However HIV-positive people may get unusual infections called “opportunistic infections”. Opportunistic infections (often abbreviated “OI”) are caused by microorganisms that are usually harmless to people with a healthy immune system. However for those with a damaged immune system, these microorganisms use “the opportunity” to produce illness. People are at greater risk of opportunistic infections when their T-cells are low, their viral load is high, or they are malnourished. Some medicines are taken as a prophylaxis, that is, to protect against getting a disease or opportunistic infection.

Types of medications commonly prescribed for HIV, include:

- ❖ Antiretrovirals that prevent the virus from reproducing or “replicating.” These newly developed drugs are classified as protease inhibitors (PIs), nucleoside reverse transcriptase inhibitors (NRTIs) or non-nucleoside reverse transcriptases inhibitors (NNRTIs), and others are in development.
- ❖ Medicines that treat opportunistic infections and prophylactic medicines that prevent opportunistic infections.
- ❖ Medications that treat the symptoms of HIV infection, opportunistic infections, and side effects of other medications.
- ❖ Appetite stimulants and medications to help build lean body mass. Some of these were discussed earlier.
- ❖ A list of many of the drugs used in the treatment of HIV and their side effect/ nutritional complications can be found in the tables and charts at the end of Section 8.

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Nutrition: When You Are Positive

Health Assurance: Anemia

Anemia is a broad term used to describe a decrease in the number or size of red blood cells. More women suffer from anemia than men. Signs of anemia may include paleness, fatigue, apathy, poor concentration, headaches, poor body temperature regulation, shortness of breath and palpitations of the heart. It can have many causes, including infections and inflammation, kidney disease, side-effects of drug therapies, faulty use of the nutrients within the body or increased nutrient requirements for zinc, selenium, vitamin B-12, folic acid, copper, vitamin C or protein. Anyone experiencing these symptoms described above should consult their health care provider to determine if they are suffering from anemia and what type of anemia it is. Do not take supplemental iron if you suspect anemia, check with your health care provider about your own iron requirements. It is possible to get too much iron.

Good dietary sources are:

- ❖ **Iron:** Liver, poultry, meat, fish, iron-fortified cereals, dried apricots, soybeans and spinach. Cooking in cast iron pots and skillets will increase the iron in your diet.
- ❖ **Folic Acid:** Liver, beans, green leafy vegetables and fortified cereals.
- ❖ **Copper:** Oysters, clams, sesame and sunflower seeds, soybeans, garbanzo beans, tofu, almonds and tomato sauce.
- ❖ **Vitamin C:** Bell pepper, citrus fruits and juices (orange, grapefruit, tangerine), kiwi fruit, brussel sprouts, strawberries, broccoli, greens, cantaloupe and cabbage.
- ❖ **Protein:** All types of meat, fish, poultry, eggs, dairy, cooked dried beans, nuts and tofu.

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Nutrition: When You Are Positive

Health Assurance: What about Constipation and Laxatives

Constipation is a reduction in your normal amount of bowel movements. You may have a problem passing hard, dry stools. Constipation can be due to your medicines, lack of enough fluids or a combination of these.

- ❖ Eat more insoluble fiber and bulk forming foods daily. Good sources include:
 - Whole grain breads and cereals
 - Cooked beans and lentils
 - Fruits and vegetables, including skins and seeds, if possible, and dried fruits such as prunes, apricots and raisins
 - Psyllium seed husks or commercial products like Citrucel or Metamucil
- ❖ Drink plenty of fluids (at least 8 glasses), such as safe water, lemonade, juices, herbal teas, etc.
- ❖ Caffeine and alcohol increase your need for fluids. If you are using caffeinated beverages, remember to add extra non-caffeinated beverages throughout your day. For every 1-cup of caffeine drink you have, you need to also drink one cup of non-caffeine beverage such as water, juice, etc.
- ❖ Get regular exercise such as a 15-20 minute walk every day.
- ❖ Avoid colon-cleansers which contain powerful laxatives. They can do more harm than good. If you need extra help having a bowel movement, ask you healthcare provider for a safe stool softener.

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Nutrition: When You Are Positive

Health Assurance: Chronic Disease What's All this Talk about Fat & Lipodystrophy Syndrome?

Many changes are happening to people who are taking HIV medicines and living longer. While the causes are not yet understood and the condition is not well defined, some people have experienced a condition that has become known as the “lipodystrophy syndrome.” Technically “lipodystrophy” means any problem in the processing of fat. In HIV disease, lipodystrophy syndrome refers to changes in how fat is distributed in the body and changes in ways fats and sugars are processed (metabolized) in the body. Not all the changes need to occur at one time.

Lipodystrophy syndrome is thought possibly to be due to changes of certain hormones that are found in the body or just living longer with a lower viral load. Lipodystrophy syndrome has been found to occur in various degrees when taking protease inhibitors and non-nucleoside reverse transcriptases. It seems that aspects of lipodystrophy syndrome may be effected by particular medication, time on the drug, lowest CD4 levels, gender, age, and pre-therapy weight. It seems likely to be more than one syndrome. There are many studies underway and researchers agree that the threat to life and quality of life is far greater without HIV medications, than with them.

1. Lipodystrophy syndrome may include fat distribution changes:

- ❖ A person may gain a large amount of fat weight around the organs in their belly. This has been referred to as protease paunch, or abdominal, visceral, central or truncal fat or obesity.
- ❖ Fat may be lost from the face, arms, legs and buttocks. Cheeks may appear sunken, and muscles and veins may be more easily seen. This fat loss is from the fat found underneath the skin. This kind of fat is called subcutaneous fat.
- ❖ Fat may build up on the back of shoulders and neck (buffalo hump), or little bumps can occur under the skin anywhere on the body.
- ❖ Women seem to experience greater fat gain in breasts and the abdomen than men. Men seem to lose more fat under the skin.

Since it is not known exactly why these changes are happening, there are no proven “cures” for “lipodystrophy syndrome” at this time. However, some things that may help include:

- ❖ Be aware of your body and report any body shape changes to your primary care provider.

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Nutrition: When You Are Positive

- ❖ Reach and maintain a healthy weight for you.
- ❖ Decrease the amount of fat that is not good for your heart such as the fat found in pies, cookies, cakes, lard, and other foods with trans- and saturated fats.
- ❖ Make sure you are getting enough protein in your diet. Good sources of protein that are low in fat include: low-fat milk and dairy products, lean meats, chicken, fish, cooked beans, tofu, nuts and seeds.
- ❖ Speak to a Registered Dietitian to get ideas on how to make healthier food choices.
- ❖ Talk to your health care provider about exercises that are right for you. In general, aerobic exercises tend to burn fat, and anaerobic exercises build muscle. See Section 3 for exercise tips.
- ❖ Have your testosterone, cholesterol, triglycerides and blood sugar checked regularly. Write these numbers down so that you keep track of them too.
- ❖ Don't stop your medicines. Talk to your health care provider. Maybe there is another combination of medicines that will be better for you.

2. Lipodystrophy Syndrome may include changes in how sugar and fats are processed (metabolized) in the body and seen as changes in some laboratory levels:

Blood lipid levels (lipid means fat)

- ❖ Increase in total cholesterol
- ❖ Increase in LDL-cholesterol (LDL = low density lipoprotein, often called the “bad” cholesterol)
- ❖ Decrease in HDL-cholesterol (HDL = high density lipoprotein, often called the “good” cholesterol)
- ❖ Increase in VLDL-cholesterol (VLDL = very low density lipoprotein)
- ❖ Increase in triglycerides

Blood glucose levels (glucose means sugar):

- ❖ Increase in insulin resistance (decrease in insulin sensitivity)
- ❖ Increase in blood glucose levels

Why is this a problem?

The possibility of coronary artery disease becomes greater when there is a problem with blood sugar levels. Plus, blood sugar problems can make blood lipid levels worse, and abnormal blood lipid levels are **major** risk factors for coronary heart disease. Increased blood sugar levels, high triglyceride levels, low cholesterol-HDL, obesity - especially with greater amounts of fat around the middle, high blood pressure, lack of exercise and smoking, all increase the risk of heart disease.

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Nutrition: When You Are Positive

Health Assurance: Chronic Disease Changes in Blood Lipid Profiles

Lipids are fats. A blood lipid profile is a lab test that shows the different types of fat you have in your blood. **Cholesterol** and triglycerides are blood lipids. Many people taking combination therapies may develop high, even very high, blood lipid levels. Have a fasting blood lipid profile lab test taken every 3-6 months. A high lipid level over time can lead to an increased risk of heart disease or pancreatitis (an inflamed pancreas). Men have abnormal blood fats more often than women do.

What is cholesterol?

Cholesterol is a fatty wax-like substance that is made by your liver and comes from certain foods as well. It is needed by your body for energy to make hormones and to protect your nerve and brain tissue. However, too much cholesterol in your blood is a risk factor for heart disease. It is only found in foods that come from an animal. Plant based foods such as fruits, vegetables, and grains do not have cholesterol in them. Cholesterol found in animal fat is not the only problem. Too much saturated and hydrogenated fats in the diet increase cholesterol made in the body and will increase blood cholesterol levels.

What makes your blood cholesterol levels become high?

- ❖ Some of your medicines can increase your cholesterol
- ❖ Your liver is making too much cholesterol
- ❖ You may be eating foods that are high in cholesterol and/or high in fat, especially saturated fat.

What does the cholesterol test measure?

The blood cholesterol test measures your total cholesterol. The total cholesterol may be the first step in screening you for high cholesterol. Your health care provider may order another blood test based on your total cholesterol results. This is called a lipid profile.

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Nutrition: When You Are Positive

Health Assurance: Chronic Disease The Lipid Profile Test

If a lipid profile is needed, it should be done when you are fasting. This means you will need to not eat for at least twelve hours before the test. The lipid profile measures:

❖ **Total cholesterol**

Total cholesterol is the sum of your HDL, LDL and one-fifth your triglyceride level. A normal cholesterol level is between 120 and 200 mg/dl.

❖ **HDL-cholesterol (High-Density Lipoprotein)**

HDL is also known as the “good” cholesterol. HDL’s help to pick up the “bad” cholesterol in your blood vessels and remove it from your blood stream. HDL’s do not clog the arteries. Good HDL levels are 50-60 for women and 40-50 for men.

❖ **LDL-cholesterol (Low-Density Lipoprotein)**

LDL-cholesterol is also known as the “bad” cholesterol. LDL’s cause the cholesterol to stick to your blood vessels, which can clog your arteries. LDL should measure below 130 mg/dl.

❖ **Triglycerides**

Triglycerides represent the bulk of ingested fats. Triglyceride above 250 mg/dl are considered high and may have a role in forming plaque in the arteries.

Ask your health care provider what your levels are and write them down.

What can you do to help improve your cholesterol numbers?

- ❖ Take steps to improve your diet, increase the amount you exercise, and possibly take cholesterol lowering medication.
- ❖ Reduce total amount of fat eaten per day. Reduce from your diet added fat -- rich gravies, sauces, mayonnaise, and desserts. Stop frying and instead bake, steam, boil, broil or barbecue.
- ❖ Use less “bad” fats such as lard, butter, stick margarine, whole milk products, and coconut. Use “healthy” fats such as olive and canola oils, lowfat dairy products, and soft margarine. Remember you still need to eat less fat all together.
- ❖ Eat lean cuts of meat, chicken without the skin, and fish.
- ❖ Add fiber to your diet, such as whole wheat breads and cereals, grains, beans, oatmeal, and oat bran, and fruits and vegetables.
- ❖ Begin an exercise program. Aerobic exercise such as walking, swimming or bike riding can help with weight control and help improve your HDL numbers. Check

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Nutrition: When You Are Positive

- with your health care provider before starting an exercise program.
- ❖ **Stop smoking.** Smoking is a major risk factor for coronary heart disease. Smoking, even exposure to others' smoking, actually worsens cholesterol levels.
 - ❖ **If your healthcare provider has given you medicine to help lower your cholesterol,** take your cholesterol lowering medicine as your health care provider had told you to do.

What are triglycerides?

Triglycerides are a type of fat, which is made by your liver and is used mainly for energy. Your medicines, past or current use of alcohol, or too much fat or sugar in your diet can cause a high triglyceride level.

Why should I care about triglycerides?

A high triglyceride level can also increase your risk of developing heart disease. Very high triglyceride levels can also cause pancreatitis. Normally triglyceride levels should be between 35-135 mg/dl for women and 40-160 mg/dl for men. If your triglyceride level is above 500 mg/dl for more than 6 months you may need medicine to lower it.

How do you lower triglycerides?

Your triglyceride level may stay high even if you are eating healthy and exercising well. Even if you are taking medicine to help lower them, you should reduce some of the foods in your diet that could cause increased triglyceride levels such as:

- ❖ **Sugars.** Limit amounts of honey, hard candies, soda, jelly beans, white table sugar, syrups and other sweet treats.
- ❖ **Try sugar substitutes** such as Nutrasweet or Equal (blue packets) or Sweet-n-Low (pink packets), or Splenda (yellow packets).
- ❖ **Use diet soft drinks and diet drink mixes.**
- ❖ **Alcohol.** Reduce or eliminate intake of wine, beer, and hard liquor.
- ❖ **Saturated fats.** Decrease intake of bacon, lard, butter, whole milk dairy products, and pastries, cookies and cakes.
- ❖ **Add soluble fiber** such as cooked beans, oatmeal, oat bran, and other whole grains, fresh fruits and vegetables.
- ❖ **Get regular exercise** at least 20-30 minutes 3-5 times a week. Check with your health care provider before starting any exercise program.

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Nutrition: When You Are Positive

❖ **If prescribed, take your triglyceride lowering medicine.** Examples of prescribed medicines that help lower blood lipids are clofibrate (Atormid), gemfibrozil (Lopid) fluvastatin (Lescol), lovastatin (Mevacor).

Be sure to talk with both your health care provider and pharmacist to ensure that these lipid lowering medications will not interfere with your HIV medications. Since more research needs to be done and studies are currently ongoing, each time you see your health care provider, ask about the most up to date information that may be helpful for you. Your health care provider should check your triglyceride level at least every 3-6 months.

Write down your levels to see how your progress is going.

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Nutrition: When You Are Positive

Health Assurance: Chronic Disease Changes in Blood Sugar Levels

An increase in insulin resistance and higher blood sugar levels may be seen in lipodystrophy syndrome. Some people may develop diabetes, high blood sugar levels that must be controlled. Blood sugar is also called blood glucose.

What is insulin resistance?

Insulin resistance is a condition in which the body does not respond to insulin. Insulin is a hormone that normally lowers the amount of sugar in the blood by stimulating the use of glucose in the muscle and fat, and by decreasing how much glucose is produced in the liver. Insulin resistance is difficult to determine outside of research or special studies, so you will need to track quarterly fasting blood sugar levels closely.

Why is this a problem?

Insulin resistance is a common reason for the development of type 2 diabetes. Both impaired glucose tolerance and type 2 diabetes are risk factors for heart disease as well as other problems, such as kidney disease, retinopathy and neuropathy. High lipid levels and having high blood pressure worsens the risk of heart disease, as do other risk factors: obesity, sedentary lifestyle, and belonging to certain ethnic groups (Native Americans, Asian Americans, Pacific Islanders, Hispanics, African Americans).

What lab values are important to watch?

Fasting blood glucose levels less than 110 are considered normal. Fasting blood glucose levels between 110 to 126 indicate a risk factor for the development of type 2 diabetes. Fasting blood sugars within this range may indicate that you are not using glucose well, and if that is the case, it is called “impaired glucose tolerance.” A level at or above 126 may indicate a diagnosis of diabetes and require further tests. If you have diabetes, another very helpful lab test is glycosylated hemoglobin, which is abbreviated to HbA1c, and pronounced hemoglobin-A-one-C. Normal levels of HbA1c are between 4-6% and keeping HbA1c levels to below 7.2% greatly reduces risks of complications. You may also be taught how to monitor your blood glucose at home. Self-monitoring can give you greater ability to control daily blood glucose levels.

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Nutrition: When You Are Positive

How do I control blood sugars?

- ❖ Make changes in your diet. A Registered Dietitian or other Nutrition Professional can help you make a diet plan.
- ❖ Regularly exercise.
- ❖ Reach and maintain your healthy weight.
- ❖ Take your medications as prescribed.

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Nutrition: When You Are Positive

Health Assurance: Chronic Disease Getting Started on Your Diabetes Care

The goal of living well with diabetes is to keep your blood glucose (sugar) levels within a healthy range. There may be many reasons why your blood sugar has gone up. It may be from your medications or a family history of diabetes. Below are steps to help you get started controlling your blood sugars. You should be referred to a certified diabetes educator (CDE) and a Registered Dietitian or other Nutrition Professional, who will provide you with an individualized meal plan, instructions and answer your questions.

Eating

- ❖ Eat on a regular schedule.
- ❖ Provide your body with small amounts of the calories and nutrients it needs throughout the day by eating small meals and snacks.
- ❖ Weigh and measure what you eat and drink for one week and every now and then to learn how much you really are eating compared to your goals.
- ❖ Don't overeat or go too long without eating.
- ❖ Use sugar substitutes like NutraSweet or Equal, Sweet & Low, Sweet One or Splenda instead of sugar.
- ❖ Avoid sweet desserts (such as cake, pie and candy) and sugar rich foods (such as honey, syrup and brown sugar). If you have a sweet tooth, work with your Registered Dietitian or other Nutrition Professional to find ways to include some sweets into your meal pattern.

Meals

- ❖ Eat small to medium sized portions to help keep your blood sugar levels in a healthy range.
- ❖ Eat your meals and snacks at regular times everyday even on weekends.
- ❖ If you are overweight, slowly reduce quantities of food and increase activity to reach a healthier weight level.
- ❖ Balance your meals with foods from all of the food groups which include the following:

Starch-whole grains, corn, potatoes, rice, beans, tortillas and others

Fruit-fresh, frozen (without sugar) or canned in its own juice

Milk-use non-fat or lowfat milk or yogurt (without sugar or "light")

Vegetables-fresh or frozen or canned

Protein-lean meat, chicken, fish, eggs or cooked egg whites, and low-fat cheese

Fats-small amounts of oils (olive, canola) margarine, and salad dressings

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Nutrition: When You Are Positive

Medications

- ❖ Take your diabetes medicine as your health care provider has told you and at the same time each day.
- ❖ Ask your health care provider or pharmacist if you have any questions about how or when to take your medicine.
- ❖ Ask your healthcare provider if you should be checking your blood sugar at home. (Blood glucose monitoring).

Exercising

- ❖ Check with your health care provider before starting any exercise program.
- ❖ Walk, swim or do a favorite activity to help keep your blood sugars in good range.
- ❖ Aerobic exercise helps keep your weight under control also.
- ❖ If you take insulin or oral agents to control diabetes, you need to carefully monitor blood glucose.

Remember, you can help control your blood sugar levels by:

- ❖ Keeping your doctors appointments
- ❖ Taking your medicine as you and your doctor agreed upon
- ❖ Eating at regular times
- ❖ Maintaining a healthy weight
- ❖ Avoiding over-eating
- ❖ Avoiding food with a lot of sugar in them
- ❖ Getting regular exercise
- ❖ Asking questions to understand and take control of your condition

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Nutrition: When You Are Positive

Health Assurance: Chronic Disease When Your Kidneys Aren't Working Well

When your kidneys are not working well they are not able to get rid of waste products that normally leave the body in your urine. These remain in your blood and may make you feel ill. You may need to eat fewer foods that make these waste products so your kidneys will not have to work as hard.

Some nutrients important to people with kidney problems include:

- ❖ **Calories** - Calories ultimately come from the protein, carbohydrate and fat found in foods. It is important to eat the right amount of calories to give you energy and help maintain a healthy weight. If extra calories are needed talk with your Registered Dietitian or Nutritionist about nutritional supplement drinks designed for people with kidney dysfunction.
- ❖ **Fluids** - Your health care provider may want you to limit fluid intake.
- ❖ **Protein** - Protein comes from both animal (meats, eggs, fish, poultry, dairy) and plant (beans, peas, tofu, and nuts) sources. The amount of protein that you should have daily needs to be calculated just for you. If you eat too much protein you may have problems with fatigue, nausea, and loss of appetite. If you eat too little protein you can lose muscle.
- ❖ **Potassium** - is found in many foods. High amounts of potassium are found in some fruits, vegetables, and cooked beans, nuts and in some salt substitutes. Eating too much or too little potassium can cause weakness in your muscles and can affect your heart. Your health care provider may want you to reduce high potassium foods like: baked potato, hash browns, potato chips, cooked spinach, sweet potato, tomato paste, winter squash, banana, prunes, and bamboo shoots.
- ❖ **Sodium** - is found mainly in table salt and in processed or convenience foods. You need to limit your sodium intake to help control thirst and blood pressure.
- ❖ **Phosphorus** - comes from foods like meats, milk and other animal products. Some plant foods also have phosphorus. The kidneys help control the amount of phosphorus in your body and kidney problems can make the level of phosphorus change in your body. Too much or too little can cause your bones to become weak and break. Your health care provider may want you to reduce high phosphorus foods like: dairy products, waffles, pancakes, green peas, snow peas, corn, asparagus, brussel sprouts, rutabagas, parsnips, cooked spinach, soda, organ meats, and sardines.

Your Registered Dietitian or other Nutrition Professional can help make sure that you get the right balance of these nutrients by helping you come up with a meal plan that balances these nutrients for your special needs, and by making sure that you get enough calories to maintain your weight.

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Nutrition: When You Are Positive

Health Assurance: Chronic Disease When Your Liver is Not Working Well

Your liver may not be working as well as it should. This may be due to problems such as Hepatitis, Cirrhosis or Hepatic Encephalopathy.

- ❖ Follow your health care provider's instructions about diet, medicines, and alcohol and street drug use.
- ❖ Often a good balanced diet is the best thing you can do nutritionally for your liver. Your Registered Dietitian or Nutrition Professional can help you plan your meals to help reduce the stress on your liver and ensure that you get a good balance of calories and nutrients including the right amount of protein, fat and carbohydrate.
- ❖ If a more restrictive diet is needed, your health care provider may want you to cut back on protein and sodium. Talk with your Dietitian or Nutrition Professional about nutritional supplement drinks designed for people with liver impairment.
- ❖ Do not take large doses of over the counter medicines without discussing this with your health care provider.
- ❖ If you have hepatitis, your health care provider may prescribe interferon-alpha (Intron-A, Alferon, or Roferon) or ribavirin plus interferon-alpha (Rebetron). If these medicines decrease your appetite, see Nutrition Guidance (Section 4) for suggestions.

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NUTRITION

Eating Tips for Living Well with HIV Disease

A strong connection exists between what you eat and your immune system's ability to fight off disease. Eating healthy food is especially important when you are HIV-positive in order to increase your physical strength so that you can live life to its fullest. **Good nutrition is a co-therapy** that can help to maximize your medical management of HIV disease. Aggressive nutrition can prevent or delay the loss of your muscle tissue, a process that is also called the HIV Wasting Syndrome. Research indicates that your nutritional health is a major factor influencing HIV, wellness, and survival. Currently, there is no cure for HIV disease or AIDS, but **you can affect the disease process and improve the quality of your life by maintaining a positive attitude and a healthy lifestyle.** Some healthy lifestyle changes you can make include:



- ❖ Work with your health care provider to design an effective medicine routine that you can live with.
- ❖ Do not skip your medicines since this can make your body not use them as well.
- ❖ Eat healthy foods. Healthy does not mean expensive.
- ❖ Deal with stress in positive ways. Learn how to manage stress.
- ❖ Get regular exercise.
- ❖ Talk with your health care provider about using appropriate natural or complementary therapies as part of your personal health plan.
- ❖ Cut down or stop "unhealthy" behaviors like smoking, drinking alcohol, and using street or other drugs.
- ❖ Learn as much as you can about HIV and keeping yourself healthy.

These therapies can work together and potentiate each other, to help you fight HIV.

People with HIV/AIDS tend to lose muscle tissue and protein stores with varying amounts of fat loss. There are **three** major reasons why you may lose weight, experience muscle wasting and develop HIV-related malnutrition. If you have a poor **appetite**, you may not eat enough protein, calories, vitamins and minerals that your body needs. Your **body's metabolism** speeds up during active infection so you need extra calories and protein from food to maintain your weight; and **malabsorption**, like chronic diarrhea, which causes your body's loss of calories, protein, vitamins and minerals.

A major nutritional goal for HIV disease is to build or maintain your muscle weight. You can do this by eating food and drinking fluids that are high in calories so that your body doesn't overuse and waste good muscle tissue for energy. These types of food give your body energy: starches or complex carbohydrates, simple sugars and fats. You also need food that provides your body with protein to build and maintain that critical muscle mass. Regular and repetitive weight resistance exercise will help you gain muscle strength. You can choose a combination of animal or complemented vegetable protein sources depending on your preference.

NUTRITION

Eating Tips for Living Well with HIV Disease

It is very important to eat small amounts of food throughout the day, even if you're not hungry. A **high protein, high calorie eating plan that is rich in starches, complex carbohydrates, and includes moderate amounts of fat is best for you to help prevent muscle wasting with HIV disease.** This may change if you have specific symptoms or other existing medical problems. Your Registered Dietitian/Nutritionist can help you decide how to modify your eating plan if you have specific symptoms. This guide offers eating tips for maximizing your protein and energy intake to gain quality weight. It includes guidelines for taking vitamin and mineral supplements, suggestions for managing nutrition problems that may interfere with your ability to eat, and basic food safety tips and recipes. But you need individual assessment and advice for your own eating plan. This is just a **general** plan.

NUTRITION

Guidelines for a High Calorie Meal Plan

When you are HIV positive, it is important to eat enough calories because HIV infection increases your body's energy needs. A calorie is a way of measuring the energy that food supplies. It is good to eat a lot of high energy food like **complex carbohydrates or starches**, a food category that includes whole grain breads and cereals, pasta, potatoes and rice. Fruits, vegetables and **simple sugars** also give your body quick energy. **Fats** give you extra energy to burn and build body fat. If you don't eat enough calories from carbohydrates, your body will break down your muscles for energy. You may not have an appetite if you become sick; you may notice that you are gradually losing weight. This represents an "emergency" situation; call your Registered Dietitian/Nutritionist right away.

To increase your calorie intake:

- ❖ Eat six small meals throughout the day.
- ❖ Keep snacks that don't require refrigeration near your bed or by the television.
- ❖ Pack non-perishable food to snack on when you are away from home.
- ❖ Engage in light exercise before you eat to increase your appetite.



Complex starches or carbohydrates are the best type of energy to build and maintain your muscle tissue. Eat generous portions of: Pasta, (whole wheat or enriched macaroni, spaghetti or noodles), rice (brown or white), barley, millet, tabouli and couscous. Also choose oatmeal, cream of wheat, rice cereal, corn meal, grits and cold cereals. In addition, breads, tortillas, muffins, biscuits, crackers, dumplings, pancakes and waffles are good. And potatoes, yams, plantain, yuca, breadfruit, corn, green peas and lima beans offer special phytochemicals as do cooked kidney beans, navy beans, lentils, pinto beans, black-eyed peas, and chickpeas.

Simple sugars give you extra energy to gain muscle and also fat weight. For extra energy, snack on fresh or dried fruit (raisins, dates, apricots, pineapple, papaya and prunes). Add jelly, jam, honey and maple syrup to hot and cold cereal, pancakes and waffles. Add honey, sugar, molasses or flavored syrup to milkshakes. Top ice cream, frozen or regular yogurt with fresh or dried fruit and syrup. Snack on cakes, pies, cookies and candy between meals. Don't let simple sugars replace more important protein and nutrient rich foods. If your blood sugars have been high or you have diabetes, adding simple sugars to your diet, such as table sugar, honey, syrup, sodas and a lot of fruit juice, are not a good source of calories. Check with your health care provider and Registered Dietitian or Nutritionist for instructions.

NUTRITION

Guidelines for a High Calorie Meal Plan

Fats give you extra energy to gain and maintain weight. If you can tolerate fat, eat moderate amounts. Add butter, margarine, sour cream, cream cheese or peanut butter to sandwiches, crackers, pancakes, waffles and hot cereal. Add gravy to meat, chicken, turkey, mashed and baked potatoes. Add sour cream, cream cheese, grated cheese, butter or margarine to mashed or baked potatoes. Top salads with avocado, olives and extra salad dressing. If you are not lactose intolerant, add non-fat dry milk solids, condensed milk, evaporated milk, whole milk or cream to granola and hot and cold cereals. If you can't tolerate milk, some companies offer no or low-lactose fluid or dry "milk", usually from soy, a powerful phytochemical. If you need to minimize saturated fat, choose low-fat soft or liquid margarine, low-fat sour cream, and light cream cheese instead of the regular kinds.

NUTRITION

Guidelines for a High Protein Meal Plan

Eating enough protein is important when your body is fighting off or recovering from infections. Protein builds muscle tissue and also helps your immune system fight infections. You can obtain protein either from animal or vegetable sources. Eat generous portions of protein at each meal. ***Good sources include:***

Animal Protein

- ❖ Fish, chicken, turkey, red meat (veal, lamb, beef, pork, rabbit or venison) and organ meats, gizzards
- ❖ Eggs, cheese, milk and other dairy products

Vegetable Protein

- ❖ Cooked beans (kidney beans, black-eyed peas, pinto beans, soybeans or garbanzo beans), falafel
- ❖ Split peas and lentils
- ❖ Tofu, tempeh, miso and seitan (flavored wheat gluten)
- ❖ Fortified soymilk, rice milk, cashew milk or almond milk with added protein
- ❖ Nuts (walnuts, pecans, cashews, almonds or brazil nuts) and nut butters (peanut butter or cashew butter)
- ❖ Seeds (sesame or pumpkin) and seed butters (tahini)

Suggestions to Increase Protein

- ❖ Use hard-cooked eggs to make egg salad sandwiches; add sliced or diced hard-cooked eggs to salads; eat desserts that are made with eggs; add eggbeaters or protein powder to milkshakes; and try french toast for sandwiches instead of regular bread. As crazy as it may seem, angel food cake is a good protein source and may be a break from meats and beans.
- ❖ Add diced meats, chopped chicken or turkey to soups, salads and sauces, canned tuna, chicken, salmon, sardines, shrimp or crabmeat to casseroles and salads.

NUTRITION

Guidelines for a High Protein Meal Plan

- ❖ Grate cheese into sauces, soups, omelets, baked potatoes and steamed vegetables; add shredded cheese to tossed salad, chicken salad or potato salad; try cottage cheese with fruit, tomatoes or salsa; snack on cheese and crackers, peanut butter and crackers, or cottage cheese with fruit between meals.
- ❖ Use milk, Lactaid™ milk, fortified soymilk or nut-based milks in hot or cold cereals, creamed soups and fruit shakes. Eat yogurt with dry cereal or fruit. Freeze yogurt and defrost slightly for a cool summer snack.
- ❖ Spread butter or nut butters on bread, toast, crackers, fresh fruit or raw vegetables. add cubed tofu, tempeh or chopped seitan to soups, salads and casseroles.
- ❖ Add dried milk powder to milk for ultra protein — "ultra-strength milk".

Good sources of protein rich foods include:

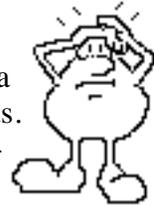
Food	Serving Size	Grams of Protein
Meat, fish, poultry	3 ounces About the size of a deck of playing cards	15-23
Cooked beans (pinto, navy, red, black, garbanzo, etc.)	1 cup	14
Tofu	1/2 cup	10
Cottage cheese	1/2 cup	16
Milk*	1 cup	8-10
Yogurt*	1 cup	8-13
Cheese	1 ounce	7
Egg	1	7
Peanut butter	2 tablespoons	7-11

* Some manufacturers add milk solids, which increases the protein content. Remember, you also get about 3 grams of protein for each serving of complex starch or complex carbohydrate.

NUTRITION

Diarrhea

Diarrhea may result from parasitic infections, medications or structural/functional changes to your intestines. The type and severity of diarrhea may vary according to the cause and to your tolerance to specific foods. Diarrhea can lead to the loss of fluid and minerals, causing dehydration and weakness.



The following may help to reduce your symptoms:

- ❖ **Drink plenty of fluids with calories to replace loss from chronic diarrhea.** These fluids include juices (grape, cranberry, diluted orange juice), fruit punch, nectars (apricot, peach, pear mango and banana), lemonade, Gatorade, Kool-Aid and liquid nutritional supplements. Water is not a good choice for the majority of your fluid intake because it does not give you calories or protein. Drink at least eight glasses of high calorie, high protein fluids each day. Avoid alcoholic beverages and those containing caffeine, including coffee because they make you lose fluid stores. Drink fluids at room temperature because very cold or hot liquids may make your diarrhea worse.
- ❖ **Avoid milk products temporarily to determine if your symptoms improve.** People who cannot tolerate milk products often manage better with yogurt that contains a *Lactobacillus acidophilus* culture or lactose-reduced products, such as Lactaid™ milk. Ask your Registered Dietitian/Nutritionist about pills or drops to reduce bloating, cramps and diarrhea. If you cannot digest lactose-reduced products, try fortified low-fat soymilk.
- ❖ **Avoid greasy or fried foods because these may aggravate diarrhea.** You may need to eat less fat if your diarrhea results from fat malabsorption. If this is the case, choose lean meats, and avoid adding extra fat to food. Certain nutritional supplements are lactose-free and low in fat, such as Nutren 1.5, CitriSource, Peptamen, or Citroprotein. To improve the flavor of these powdered supplements, add them to lemonade, juices or nectars. Choose vanilla flavor for more flexibility.
- ❖ **Avoid eating roughage fiber in food, including fruits (except bananas), vegetables, whole grains, and corn. Instead choose oats, barley, white rice, fruit nectars and pureed vegetables or baby food.**
- ❖ **Ask your physician about anti-diarrheal medications,** such as Imodium, Lomotil or Paregoric. The medication will vary depending on the cause of your diarrhea. A tablespoon of Metamucil mixed with juice may help to control diarrhea. It contains soluble fiber, which like oats and barley, can promote stool bulking.
- ❖ **Avoid eating food that may cause cramps or bloating,** such as beans, cabbage, broccoli, brussels sprouts, onions, green peppers, and other spicy foods.

NUTRITION

Diarrhea

- ❖ **Choose food and fluids that are high in potassium**, a mineral that you lose with diarrhea. Good food sources of potassium are bananas, potatoes, fish, chicken and meat. High potassium fluids include orange juice, apricot, mango and peach nectars, V-8 juice and Gatorade.

NUTRITION

The Importance of Fluids

Drinking enough fluids is very important when you are HIV-positive. Fluids help prevent dehydration, especially when you are taking many medications. You need a great deal of fluids to flush out medications that have been used by your body. If you are having a difficult time maintaining your weight, drink **high calorie fluids** (eg: juices, nectars, fruit punch, sweetened iced tea, lemonade, ginger ale, soda, Gatorade and Kool-Aid) **and high calorie, high protein fluids** (eg; milk, milkshakes, Lactaid™ milk, fortified soymilk, fortified nut milks) **instead of water.** Drink at least eight glasses of fluid each day. Drink more if you are taking many medications. You will need to drink more if the inside of your mouth or tongue is dry. Avoid drinking beverages that contain caffeine or alcohol, especially if you have diarrhea. These products cause further fluid losses. Caffeine-containing beverages include coffee, black tea and many types of soda. Alcohol is low in nutrients and can also dehydrate you. Salt containing fluids like chicken or beef broth (soups) will make you thirsty so that you drink more, consequently helping you retain more fluids.

Certain parasites are spread through tap water and make you very sick when your CD4 count is below 200 cells/ mm³. *Cryptosporidiosis*, *Mycrosporidiosis* and *Mycobacterium avium intracellulare* (MAI) are in many tap waters and cause flu-like symptoms that include cramping and massive watery diarrhea. **When you drink water**, buy distilled water or use boiled tap water (boil 5 minutes to kill germs). Also be careful of ice and fountain sodas which are made from tap water and soda syrups. Bottled juices are safe to drink if they are pasteurized. Be sure to order bottled water and no ice in restaurants.



Dry Mouth can occur as a result of not drinking enough fluids or as a side-effect of medications. In addition to drinking enough fluids, the following suggestions can help you manage this problem:

- ❖ Start and end each day with a glass of water.
- ❖ Use extra sauce, butter, gravy, yogurt or salad dressing to moisten food.
- ❖ Dunk or soak bread, crackers and cookies in soup, milk, juice or hot chocolate.
- ❖ Use sugar-free candy, sour balls, popsicles, safe water/ice cubes, and sugarless chewing gum to stimulate salivation.
- ❖ Sleep with a humidifier in your room, and keep fluids by your bedside so you can drink throughout the night if you are thirsty.



NUTRITION

The Importance of Fluids

Constipation can occur as a result of not drinking enough; not eating enough high fiber food or being inactive. It can also develop as a side-effect of medications. In addition to drinking enough fluids, the following suggestions may be helpful:

- ❖ Eat food high in insoluble fiber: whole grain breads and cereals, fresh fruits and vegetables, cooked beans and chickpeas, nuts and seeds. Add small amounts of bran to food or liquids to increase dietary fiber.
- ❖ Add regular exercise into your daily schedule.

NUTRITION

Mouth Pain and Painful Swallowing

Mouth Pain

- ❖ Smoking and alcohol can irritate the inside of your mouth.
- ❖ Be careful of very hot food and carbonated sodas. They can really make your mouth sores burn. Allow food to cool down to a lukewarm temperature before eating.
- ❖ Eat very cold foods, such as sorbet, sherbet, fruit ice, frozen yogurt or ice cream, to numb your taste buds.
- ❖ Eat soft, bland food, including applesauce, oatmeal, grits, cream of rice, creamed soups, custards, pudding, flan, and hard-cooked eggs, and drink non-acidic juices and nectars.



Painful Swallowing

- ❖ Use a straw for drinking fluids, and use a cup or glass instead of a bowl for eating soup. Tilt your head back for easier swallowing.
- ❖ Choose soft-textured food (oatmeal, cream of rice, canned fruits, cottage cheese, yogurt, pudding, flan or custard). Puree food in a blender or food processor or choose baby foods which are already pureed for you.
- ❖ Eat food at room temperature. Avoid eating food that is either very hot or very cold.
- ❖ Try a variety of liquid nutritional supplements that are high in calories and protein, in addition to soft or pureed food. Examples include Ensure Plus, Sustacal Plus, Resource Plus, Nutren 1.5, Boost and Nutrament. You will need to determine what tastes good to you. Try blending fresh or canned fruit with vanilla and strawberry flavors, or blend a banana with a chocolate flavor. If you are underweight, ask your Registered Dietitian/Nutritionist, health care provider or case manager how to get nutritional supplements through Medicaid.

NUTRITION

Taste Changes

Oral infections, such as thrush, and some medications can change your sense of taste. If you have sensitive taste buds eat bland food. If you may have a bitter and metallic taste in your mouth avoid foods that cause this. The following suggestions may help when you have taste changes:



- ❖ Before you eat, rinse your mouth with a mixture of one teaspoon of baking soda and a glass of warm distilled water. Swish the mixture around your mouth, but do not swallow. Remember to take your anti-fungal medication regularly to prevent oral or esophageal candida/thrush if this is a problem for you.
- ❖ Use a toothbrush with soft bristles and a flavored toothpaste to clean your teeth and your tongue before and after you eat. If your mouth is too sore for a soft bristle tooth brush, try cotton swabs.
- ❖ Tart food can mask a metallic taste. Try drinking orange, cranberry or pineapple juice and lemonade. Add vinegar, lemon juice, pickles or relish to your food.
- ❖ Marinate meat, chicken, turkey, fish or tofu in vinegar, wine, salad dressing or soy sauce. Add fresh or dried herbs to your food (rosemary, thyme, basil, oregano or cumin).
- ❖ Try different food textures (add chopped nuts, seeds or water chestnuts) to make eating more interesting.
- ❖ Eat cold food, such as sorbet, sherbet, fruit ice, ice chips, frozen yogurt or ice cream to numb your taste buds.

NUTRITION

Poor Appetite and Nausea

Poor Appetite

- ❖ Eat six small meals throughout the day (e.g., 8:30 AM breakfast, 10:00 AM snack, 12:30 PM lunch, 3:00 PM snack, 5:30 PM dinner, 7:30 PM snack). Keep snacks near your bed or by the television in your house or apartment. Do light exercise, stretching or deep breathing before you eat.
- ❖ Eat your favorite food, even if it is just a little bit.
- ❖ Eat with others—you will be surprised at how well you eat when you do.
- ❖ Drink a liquid nutritional supplement or a homemade fruit shake instead of skipping a meal.
- ❖ Keep a large amount of food handy, and freeze in single portion-sized packages.
- ❖ Ask your health care provider or Registered Dietitian or Nutritionist about medications that can stimulate your appetite, including: Marinol, Megace, and Periactin.
- ❖ Keep foods handy that can be prepared and eaten within 10-15 minutes, in order to take advantage of an appetite which might only last that long.



Nausea and Vomiting

Nausea and vomiting may be caused by infections as well as by some medications and treatments.

The following suggestions may help you to manage symptoms:

- ❖ Eat small, frequent snack-sized meals throughout the day rather than two or three big meals, and drink high calorie fluids one hour after you eat.
- ❖ Don't eat solid food and drink liquids at the same meal. Space them at least one hour apart.
- ❖ Avoid greasy, fried or spicy food; instead, choose bland tasting cold food.
- ❖ Choose dry food, such as dry ready-to-eat cereal, crackers, melba toast and cookies. You can keep these close to your bed or favorite chair so that they are within close reach.
- ❖ Eat salty food, such as crackers, pretzels and unbuttered popcorn to reduce nausea; or try a little salt on the tip of your tongue. Don't lie down flat for at least one hour after you eat. Let food digest before you go to sleep. Eat food cold or at room temperature. Hot food can and will cause nausea, and may cause vomiting as well.

NUTRITION

Poor Appetite and Nausea

- ❖ Avoid eating your favorite foods when you feel sick. You may end up disliking them because you associate them with feeling nauseated. If the smell of food makes you sick, ask someone else to cook for you, and stay away from the kitchen while food is being prepared.
- ❖ Drinking a cup of herbal tea with honey (e.g., peppermint or chamomile) or chewing on fresh ginger root can sometimes settle an upset stomach.
- ❖ Ask your health care provider about anti-nausea medication. If one medication does not work, there are other choices; check with your health care provider for a different medication.

NUTRITION

Healthy Blender Drinks

When you are HIV-positive, there may be some days that you do not feel like eating. You may have sores in your mouth or throat that make chewing or swallowing difficult. You may even have diarrhea when you drink milk products. These recipes can help you make low-lactose or dairy-free drinks that are high in calories and protein so that you will be able to maintain your weight when you have eating and digestive problems. To prepare each recipe, combine the ingredients at high speed in a blender or food processor for one to two minutes until smooth. Add different types of fruit and flavoring so that you do not get tired of any one recipe.

Fruit Shake

1 cup fortified soymilk*
2 tbsp. sugar or honey
2 tbsp. protein powder
1 tbsp. wheat germ
1 tbsp. bran*
1 cup sliced fruit

This shake is high in calories, protein, fiber and is lactose-free.

+ Omit if you have diarrhea.

Triple Fruit Yogurt Smoothie

1 cup vanilla yogurt with active cultures
1 pkg. vanilla Instant Breakfast
1/2 cup sliced peaches & mangos
1 cup apricot nectar
2 tbsp. honey or sugar

This shake is high in calories, protein and potassium.

Piña Colada

1/2 cup coconut milk
1 cup pineapple juice
1/2 cup fresh or canned pineapple
1 pkg. vanilla Instant Breakfast
1/4 cube of tofu

This drink is high in calories and protein.

Raspberry Sorbet

1 cup orange sherbet
1/2 cup frozen raspberries*
1 cup CitriSource
1/2 cup crushed ice
1 pkg. vanilla Instant Breakfast

This sorbet is high in calories and protein and is low in fat.

+ Omit if you have diarrhea.

Peanut Butter Chocolate Shake

2 tbsp. peanut butter
1-8 oz can chocolate liquid meal supplement
1/2 banana

This shake is high in calories, protein and potassium.

Lipisorb Shake

1/2 cup mango nectar
1/2 cup apricot nectar
1 cup sliced papaya and banana
2 scoops Lipisorb powder

This shake is high in calories protein and potassium but low in fat.

**You can substitute Ensure Plus, Sustacal, Nutren 2.0 or Resource Plus for soymilk.*

NUTRITION

Food Safety

Food safety guidelines are important to follow because your immune system is weak. Germs can be passed to you from food that is undercooked or not handled carefully. Food-borne disease can make you very sick with symptoms like fever, nausea, vomiting, cramping and diarrhea. The following guidelines can help you protect yourself from food poisoning when you are preparing and storing food.

Preparing Food

- ❖ Wash your hands with warm, soapy water before and after preparing each food.
- ❖ Wash all fruits and vegetables thoroughly with warm water, a mild soap and a soft bristle brush. You can also use a mixture of 1/2 cup lemon juice to a gallon of warm water. Or, you can remove the skin or the peel from fruits and vegetables before you eat them.
- ❖ Cook meat, poultry and fish to medium or medium-well. Do not eat raw or rare meat especially ground meat or poultry. Also avoid raw fish, including sushi, sashimi and steamed clams or oysters.
- ❖ Thaw frozen meat and poultry in the microwave or the refrigerator; not at room temperature.
- ❖ Drink pasteurized milk only. Unpasteurized milk or dairy products can carry *Salmonella*.
- ❖ Don't use eggs that have cracks in their shells. Hard-cook eggs for at least seven minutes or fry eggs for at least 3 minutes on each side. Avoid eggs that are lightly poached or over easy. Also avoid food that contains raw or partially cooked eggs, such as homemade mayonnaise, hollandaise sauce, homemade ice cream and eggnog, raw cake or cookie batter. Caesar salad dressing and the Spanish drink ponche are also very risky.
- ❖ Don't eat soft ripened cheeses, such as Brie and Camembert. Don't eat moldy foods.
- ❖ Make a dilute bleach mix by adding 1-2 tablespoons of bleach to a gallon of warm water. Use this mix to scrub kitchen utensils.
- ❖ Instead of cutting boards which may cause food safety problems, use cheap paper plates which can be thrown away after using. Clean up was never easier.
- ❖ Keep hot foods hot - baked dishes should be kept at room temperature for no more than 30 minutes. Germs breed best at room temperature.
- ❖ Make sure you wash off all cans before opening them; don't forget to wash soda cans before drinking out of them.



NUTRITION

Food Safety

Storing Food

- ❖ Get a refrigerator thermometer. Refrigerators should be at 40°F or lower, and freezers at 0°F or lower.
- ❖ Refrigerate food that you do not intend to eat immediately.
- ❖ If you are making a large amount of food, divide portions into small containers and refrigerate.
- ❖ Cover food tightly with plastic wrap or store in air tight containers to retain freshness.
- ❖ Prevent drippings from defrosted food to touch other food in the refrigerator; use the lowest shelf or drawer to store defrosted or defrosting food.
- ❖ Do not eat leftovers that have been sitting in the refrigerator for more than three days.
- ❖ Do not refreeze previously frozen food; especially meats, poultry or fish and shellfish.
- ❖ Do not forget to check expiration dates on foods both before purchasing and before eating.

**Always Use Caution
If in doubt, Throw it out.**

NUTRITION

Eating Well Without a Refrigerator

Eating well while you're staying in a place without a refrigerator or stove can be a real challenge! It's too expensive to eat meals out and fast food doesn't always fit in with nutrition goals. Here are some "perishable" food items that can be stored at room temperature for short time periods:

- ❖ Fruits and vegetables that will last for 1 to 2 days at room temperature:
Apples, bananas, nectarines, peaches, plums, bell peppers, broccoli, carrots, cucumbers, salad greens, and tomatoes.
- ❖ Grapefruit and oranges will last 5 to 7 days.
- ❖ Medium hard cheeses such as cheddar and swiss can be kept 1 to 2 days.
- ❖ Bread and baked goods will last 1 to 5 days.

***If the weather is hot, food will spoil quicker.
If in doubt, throw it out!***



No Place to Cook? *It is possible to eat well without a stove or refrigerator.* The foods below will provide nutritionally-balanced meals.

Grains

Bread, bagels, tortillas, flat breads, rolls
Cereals such as:
Corn Flakes, Chex, Cheerios, Product 19, Rice Krispies, Shredded Wheat, Special K, Total, etc.
Whole grain, low-fat crackers such as:
Ak Mak, Graham, Harvest Crisp, Rice Cakes, Ry Krisp, Triscuits, Wasa

Dairy

Milk (aseptic containers or canned evaporated milk)
Fresh milk in small cartons
Cheese (cheddar, swiss, american)
Yogurt
Pudding cups (single-serve)

Protein

Tuna, chicken (canned in water)
Sardines, salmon, kipper snacks (canned)
Peanuts or peanut butter
Cottage cheese (single serve)

Fruits and Vegetables

Fresh: Bell peppers, carrots, cucumbers, salad greens (ready-to-eat), tomatoes, apples, bananas, nectarines, peaches, plums, grapefruit, oranges
Canned: Apricots, peaches, pineapple, fruit cocktail and pie fillings
100% Fruit Juice (small cans, bottles, and boxes):
Grapefruit, orange, pineapple, tomato, V-8, apple or grape with vitamin C
Dried: Apricots, prunes, figs, raisins, apples
Single serve fruit cups

Adapted from Lisa Ploss RD, MPH

NUTRITION

Guidelines for a Vegetarian Meal Plan

The vegetarian diet consists of foods mainly from plants. The key to a healthy vegetarian diet is to eat a wide variety of foods. It is very important to get enough calories and protein to keep your muscles and your body healthy when you are living with HIV.



Different types of vegetarian diets include:

- ❖ Lacto-ovo vegetarian - a diet which includes foods from plants, milk, dairy and egg sources.
- ❖ Lacto-vegetarian - a diet which includes foods only from plant and dairy sources.
- ❖ Vegan (total vegetarian) - a diet which includes only foods from plants.

Tips for vegetarians to remember

- ❖ **Get help:** Seek out the advice of a Registered Dietitian or other Nutrition Professional.
- ❖ **Vegan:** If you are vegan, it may be even more difficult to get the amount of protein and other nutrients that you need every day. Make sure you get assistance, learn about foods and see that you get the nutrients you need.
- ❖ **Variety:** In planning a vegetarian diet choose a wide variety of foods from all the sections of The Vegetarian Food Guide Pyramid© (The Health Connection, Hagerstown, Maryland, used with permission - see Page 4-21). This and other food pyramids are designed for the general public and may not take into account your special needs. By at least getting the variety of foods described in the food guide pyramid, you can establish a good nutritional foundation that you can build upon.
- ❖ **Calories:** Monitor your weight weekly. You will likely need more than the minimum number of servings in each section of the pyramid to maintain weight and make sure you are getting all the calories, protein and nutrients you need. When trying to keep weight on, some higher calorie plant based foods that can help are: hummus, soy cheese, nut butters, tofu, avocado, and olives.

NUTRITION

Guidelines for a Vegetarian Meal Plan

❖**Protein:** Protein is used to keep muscles healthy and with HIV you may have increased needs for protein. You will probably meet your protein needs if you are eating dairy and egg products daily. Protein needs for adults may range from 80-125 grams of protein or more every day or more. Read labels and count grams of protein. Add extra protein by adding protein powder (dry milk, egg or commercial powders) to foods that you eat. Some good sources of plant-based protein include:

Food	Portion Size	Grams of Protein
Soybeans	1/2 Cup	14
Tofu	1/2 cup	10
Soymilk	1 cup	7-10
Lentils	1/2 cup	9
Cooked beans (pinto, navy, red, black, garbanzo, etc.)	1/2 cup	7
Peanut, cashew or almond butter	2 Tablespoons	7
Potato	1 large	4-5
Grains	1/2 cup	2-4

NUTRITION

Guidelines for a Vegetarian Meal Plan

THE VEGETARIAN FOOD PYRAMID

A DAILY GUIDE TO FOOD CHOICES

LOW-FAT OR NON-FAT,
MILK, YOGURT, FRESH CHEESE,
AND FORTIFIED
ALTERNATIVE GROUP
2-3 SERVINGS
EAT MODERATELY

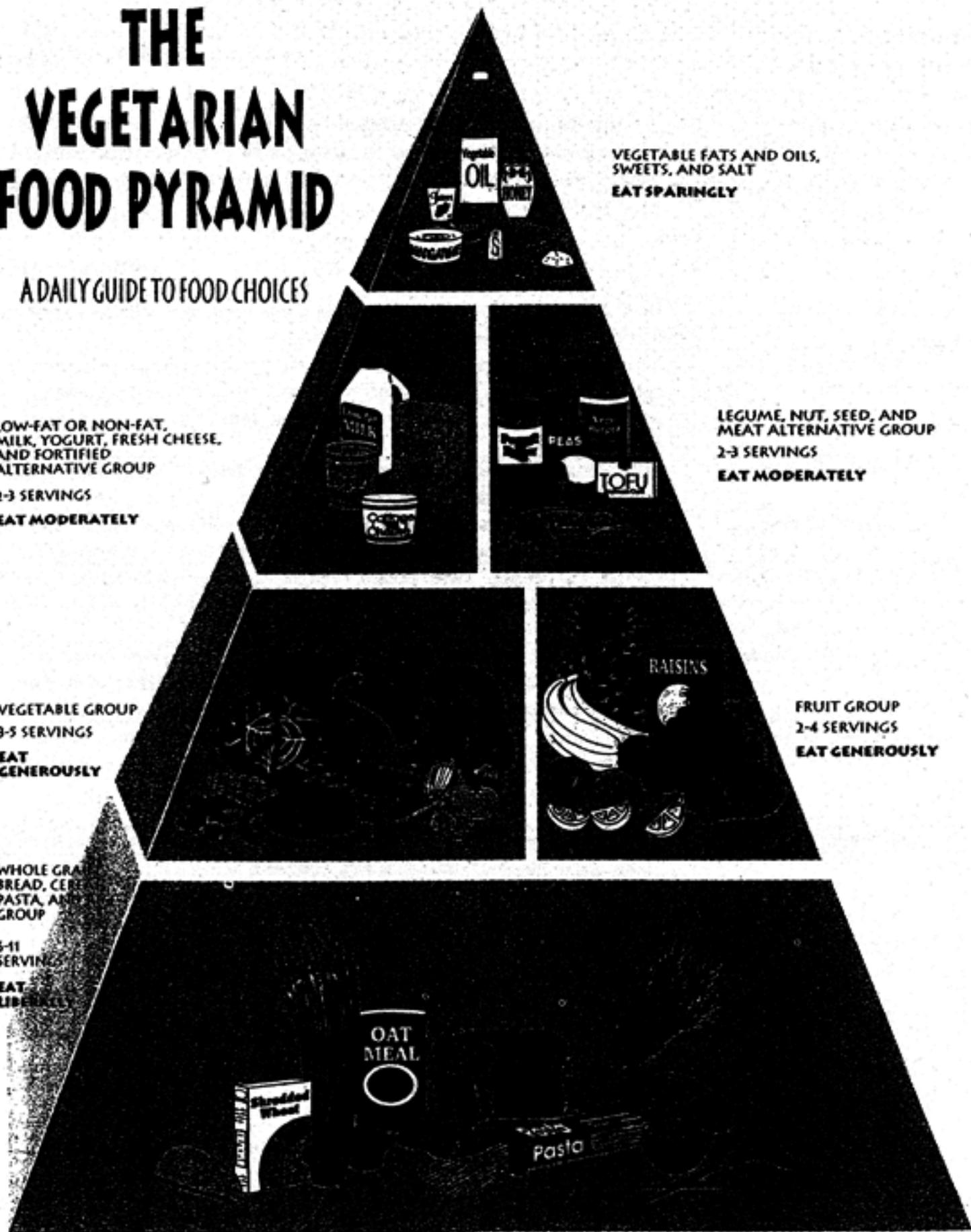
VEGETABLE GROUP
3-5 SERVINGS
EAT
GENEROUSLY

WHOLE GRAIN
BREAD, CEREAL,
PASTA, AND
GRAIN GROUP
6-11
SERVINGS
EAT
LIBERALLY

VEGETABLE FATS AND OILS,
SWEETS, AND SALT
EAT SPARINGLY

LEGUME, NUT, SEED, AND
MEAT ALTERNATIVE GROUP
2-3 SERVINGS
EAT MODERATELY

FRUIT GROUP
2-4 SERVINGS
EAT GENEROUSLY



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Adapted from *God's Love We Deliver*- New York

NUTRITION

Guidelines for a Vegetarian Meal Plan

	FOOD GROUP	EXAMPLES OF FOOD CHOICES
E n e r g y	Complex Starches:	Whole grains: wheat, rye, corn, oat, rice, bulgur, kasha, quinoa; whole grain breads, hot and cold cereals, and other grain products like pasta, crackers, ; potatoes, winter squash.
G r o w t h	Animal Protein:	Beef, chicken, fish, duck, pork, turkey, lamb, eggs, milk, cheese, egg or milk-based protein powders
	Plant Protein:	Dried beans (cooked): black, pinto, red, navy, lima, garbanzo, etc., green peas, split peas, lentils, soy foods (soybeans, tofu, soy-based protein powders, tempeh), seeds, nuts and nut butters (peanut, sunflower, sesame, almond, Brazil nuts, etc.)
	Animal Calcium	Milk, cottage cheese, yogurt, hard cheese, ice cream, canned salmon (with bones), canned sardines (with bones)
	Vegetable Calcium:	Tofu processed with calcium, broccoli, Chinese cabbage, almonds, dried figs, greens (chard, mustard, collard), calcium fortified orange juice or soy milk
P r o t e c t i o n	Vitamin A rich foods:	Carrots, red peppers, sweet potato, oranges, strawberries, tomatoes, spinach, pumpkin, cantaloupe, watermelon, greens (collard, arugala, turnip), winter squash
	Vitamin C rich foods:	Guava, red and green bell peppers, papaya, orange and grapefruit and their juices, broccoli, Brussels sprouts, kohlrabi, strawberries, kiwi, cantaloupe, tomatoes and tomato juice, spinach, cabbage
	Other Fruits & Vegetables	Apple, banana, pear, prunes, eggplant, onions, lettuce, zucchini, raisins, peaches, celery, mushrooms, turnips, radishes, asparagus,
E x t r a g y	Simple Sugars:	White table sugar, brown sugar, honey, molasses, corn syrup, sodas, candy
	Fats:	Mono-unsaturated oils: olive, canola, flaxseed, and peanut oils, olives, avocado Poly-unsaturated fats: safflower, corn, soybean, cottonseed, sesame, and sunflower oils, and in liquid or soft margarine Saturated fats and oils: butter, hard margarine, coconut and palm oils, beef fat, chicken fat, bacon, pork
E x t r a t i c a	Supplements:	<ul style="list-style-type: none"> • Vitamin/Mineral – A “One-a-day” type, around 100% RDA – take two each day <i>one in the morning and one in the evening</i> • Vitamin E – 400 IU each day • Vitamin C – 500-1000 mg each day • B-complex – one each day

Adapted from *God's Love We Deliver*- New York

NUTRITION

Guidelines for a Vegetarian Meal Plan

Hard to get nutrients

In a vegetarian diet, vitamin B12, protein, and minerals (calcium, zinc, and iron) may be difficult to get enough of everyday. Learn what foods are high in these nutrients and make sure you include them in your daily diet. Consider and choose a vitamin-mineral supplement with your health care provider. See the lists and chart below for foods high in these nutrients.

Vitamin B12

Usually only a small amount of vitamin B12 is needed; however with HIV this important nutrient can become low in your body more quickly. Since vitamin B12 is found mainly in foods from animal sources, vegetarians need to be sure they are getting the extra B12 they need. B12 is needed to make nuclear materials in each cell, in the formation of red blood cells and keeping the nervous system healthy. People living with HIV may become deficient in vitamin B12. Some good sources of vitamin B12 include:

- ❖ Cottage cheese, milk, eggs
- ❖ Other dairy products
- ❖ Red Star Vegetarian Support Yeast T6635
- ❖ Vitamin B12 fortified soy milk
- ❖ Vitamin B12 fortified breakfast foods
- ❖ Vitamin B12 fortified vegetarian burger patties

Calcium

Your bones need calcium to keep them healthy. It is recommended that you get at least 800-1200 milligrams per day. Dairy products are rich in calcium. If you are not eating dairy products, consider the following plant-based rich options:

- ❖ Tofu - that has been preserved in a calcium solution or fortified with calcium
- ❖ Calcium enriched soy products
- ❖ Calcium-fortified orange juice
- ❖ Dark leafy vegetables such as turnip greens, kale, or mustard greens
- ❖ Broccoli
- ❖ Pinto beans
- ❖ Blackstrap Molasses
- ❖ Figs

The Health Connection (used with permission)

NUTRITION

Guidelines for a Vegetarian Meal Plan

Iron

Iron is important for carrying oxygen through the blood so that the food can be burned as fuel. Indications of deficiencies may include pale skin, weakness, shortness of breath and lack of appetite. Many people may be deficient in iron, however supplementation with iron is not recommended for HIV positive persons, so including iron-rich foods in your diet is important. Plant-based options include:

- ❖ Prune juice
- ❖ Navy beans
- ❖ Lentils
- ❖ Spinach
- ❖ Black beans
- ❖ Lima beans
- ❖ Peaches
- ❖ Split peas
- ❖ Garbanzo beans
- ❖ Soybeans
- ❖ Pinto beans
- ❖ Blackstrap molasses
- ❖ Rice bran

Zinc

Zinc is an important nutrient for wound and burn healing, and formation of amino acids and nucleic acids. Deficiencies can cause loss of appetite and change the way things taste. People living with HIV may become deficient in zinc. Some good sources of zinc include:

- ❖ Tofu
- ❖ Cashews
- ❖ Lima beans
- ❖ Baked beans
- ❖ Split peas
- ❖ Peanut butter
- ❖ Wheat germ
- ❖ Zinc fortified breakfast cereals
- ❖ Sunflower seeds

NUTRITION

Guidelines for a Vegetarian Meal Plan

Meal Planning

To help you with vegetarian meal planning, the following is an example of a balanced menu to give you an idea how to get the right amount of nutrients for good health. You may need more or less food. This menu provides approximately 3000 calories and 115 grams of protein.

Breakfast	Snack	Lunch	Snack	Dinner
Oatmeal, 1 cup with raisins, 2 Tbsp. Wheat germ, 1 Tbsp. Soy milk, 1 cup Banana, 1 Raisin Bread, toast with peanut butter, 2 Tbsp.	Choose from the choices below	Split pea soup, 1 cup Tossed salad with chickpeas, 1/2 cup Whole grain muffin Soy cheese, 1 slice	Choose from the choices below	3-bean salad, 1/2 cup Pasta, 1 cup with tomato sauce, 1/2 cup Green beans, 1/2 cup Italian bread with margarine, 1 tsp.

Snack choices

- ❖ Soy protein shake
- ❖ Cereal, fruit and soymilk
- ❖ Cinnamon raisin bagel with tofu spread
- ❖ Trail mix
- ❖ Oatmeal cookies and soy milk
- ❖ Yogurt with fruit

Other Tips for Vegetarians

- ❖ If you are eating dairy and egg products, then add them to your menu.
- ❖ If you are trying to keep weight on, higher calorie plant-based foods that can help are:
 - Hummus
 - Nut Butters
 - Avocado
 - Soy cheese
 - Tofu
 - Olives

NUTRITION

Guidelines for a Vegetarian Meal Plan

What to do when you are ill

When you are ill, remember to eat small amounts frequently. It can be easier to sip calorie protein shakes rather than eating solid foods. Remember to drink fluids through the day. Try to keep calorie intake increased and ask for help from your healthcare provider or Registered Dietitian / Nutritionist.

Ways to add extra calories for the vegetarian

Easy, quick and nutrient rich foods eaten between meals or as a number of small meals can add extra calories when you need them. In general, the following simple nutrient rich foods contain about the amounts of calories, grams of protein and grams of fat listed. Check the nutritional labels of foods you purchase to eat and remember to account for the amount you actually do eat.

Food/Portion Size	Calories	Protein Grams	Fat Grams
Toast w/ peanut butter & jelly	214	6	9
1 cup cottage cheese	203	31	5
1 cup yogurt	240	14	5
1 cup milkshake	350	12	10
1 apple with 2 Tbsp. peanut butter	288	8	16
1/2 cup hummus and pita bread	305	9	10
1 cup trail mix	693	21	44
1 small bagel with cream cheese	294	10	11
1 cup ice cream	185	4	11

NUTRITION

Guidelines for a Vegetarian Meal Plan

Important nutrients of common vegetarian foods

- ❖ The chart lists major nutrient values for foods often chosen by vegetarians and lacto-ovo vegetarians. See page 4-28.
- ❖ Nutrient values are **bolded**, when that food contains more of that nutrient.
- ❖ Work with your Registered Dietitian or other health professional to find out how best to meet your nutrient needs.

For more information about vegetarian eating, see **References (Section 10)**.

NUTRITION

Guidelines for a Vegetarian Meal Plan

Important nutrients of common vegetarian foods

Food	Portion Size	Calories	Protein	Fat	Iron	Calcium	Zinc	Vit. B-12
				65 g	18 mg	1000 mg	15 mg	6 mcg
Daily Value								
Bagel, Egg	1 small	158	6	1.2	2.3	7	.44	.09
Muffin, Bran	1 small	300	5.2	9.2	.6	102	?	?
Oatmeal Raisin Cookie	1 small	63	1	2.7	.4	14	.13	.02
Milk, 1%	1 cup	102	8	2.5	.1	300	.9	.9
Milk, whole	1 cup	149	7.8	7.8	.2	290	.90	.88
Cottage Cheese, low fat, 2%	¼ cup	51	7.8	1.1	.1	39	.24	.4
Yogurt, whole milk	1 cup	138	7.9	7.4	.1	275	1.32	.84
Yogurt, Nonfat, plain	1 cup	127	13	.4	.2	452	2.18	1.39
Cheddar Cheese	1 ounce	114	7.1	9.4	.2	204	.88	.23
Milkshake	1 cup	245	8.7	8.3	.1	342	1.01	1.04
Ice Cream, Regular Fat	1 cup	173	4.8	15.0	.1	174	.94	.93
Cream Cheese	2 Tablespoons	195	4.2	19.5	.7	45	.3	.24
Egg, 1 cooked	1 each	77	6.5	5.2	.7	25	.57	.52
Potatoes, boiled, each	Small- medium	116	2.3	.1	.4	11	.36	0
Broccoli, cooked	½ cup	22	2.3	.3	.7	36	.30	0
Green Beans,	½ cup	22	1.2	.2	.8	29	.21	0
Raisins	¼ cup	109	1.2	.2	.8	18	.1	0
Banana, each	1	109	1.2	.6	.4	7	.19	0
Italian Bread	1 slice	83	2.7	.2	.7	5	0	0
Margarine	1 teaspoon	34	0	3.8	0	1	.01	0
Butter	1 teaspoon	34	0	3.8	0	1	0	?

Adapted from *God's Love We Deliver*- New York

NUTRITION

Guidelines for a Vegetarian Meal Plan

Important nutrients of common vegetarian foods

Food	Portion Size	Calories	Protein	Fat	Iron	Calcium	Zinc	Vit. B-12
Daily Value				65 g	18 mg	1000 mg	15 mg	6 mcg
Pinto Beans	1 cup	234	14	.9	4.5	82	1.85	0
Navy Beans	1 cup	258	15.8	1	4.5	127	1.93	0
Red Beans	1 cup	225	15.3	.9	5.2	50	1.89	0
Kidney Beans	1 cup	225	15.3	.9	5.2	50	1.89	0
Soybeans	½ cup	149	14.1	7.7	4.4	88	.99	0
Lentils	½ cup	115	8.9	.4	3.3	119	1.26	0
Black Beans	1 cup	227	15.2	.9	3.6	46	1.93	0
Baked Beans	1 cup	281	13.4	3.7	4.2	154	3.79	.05
Split peas, cooked	½ cup	160	8.2	.4	.13	14	.98	0
Lima beans, baby	½ cup	94	6	.3	1.8	25	.49	0
Three Bean Salad	½ cup	112	3.5	5.8	1.4	39	.21	0
Peanut butter	2 tablespoons	191	9.2	16.5	.55	10	.94	0
Sunflower seeds	¼ cup	205	8.2	17.8	2.4	42	1.82	0
Cashews, Dry roasted	¼ cup	197	5.2	15.9	2.1	15	1.88	0
Trail Mix	1 ounce	118	3	2	1.1	41	?	?
Tofu, raw, regular	½ cup	94	10	5.9	6.6	130	.99	0
Soy Milk, Fluid	1 cup	79	6.6	4.6	1.4	10	.55	0
Soy Milk, First Alternative	1 cup	76	8.0	2.3	1.4	294	1.21	1.25
Soy Milk, Original Eden	1 cup	130	10	4	1.4	80	1.16	?
Soy Milk, Soy Moo, Health Valley	1 cup	140	8.8	6.0	1.0	40	?	?
Wheat germ, crude	2 tablespoons	52	3.3	1.4	.9	6	1.77	0
Cereal, Cheerios	1 cup	89	3.4	1.5	3.6	39	.62	1.2
Cereal, Grape-nuts	¼ cup	101	3.3	.1	1.2	11	.62	1.5
Cereal, Mini-Wheats, Frosted	1 cup	66	1.9	.2	1.2	6	.97	0
Cereal, Wheaties	1 cup	99	2.7	.5	4.5	43	.63	1.5
Oatmeal, Cooked	½ cup	73	3.0	1.2	.8	9	.57	?

Adapted from *God's Love We Deliver*- New York

NUTRITION

Guidelines for a Vegetarian Meal Plan

Healthy "No-Blender" Drinks

When you do not have a blender, use a clean empty jar with a lid. Put ingredients in it and shake until mixed. Choose ingredients that are easy to mix.

No Blender Shake

(When you can drink milk)

Put in a cup with a lid and shake:

1/2 cup plain yogurt

1/2 cup milk

1 cup fruit nectar



No Blender Shake

(When milk makes you sick)

Put in a cup with a lid and shake:

1 cup soy milk

1 cup fruit nectar

Nutritional Tips



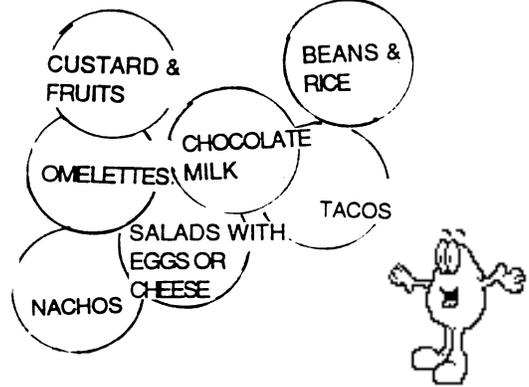
Lack Of Appetite

Lack of appetite can be caused by medication, stress, fatigue, or infection.

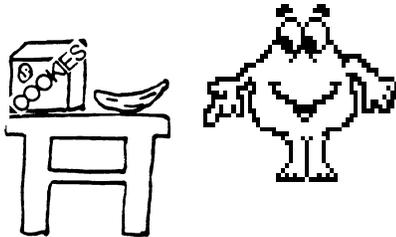
I am going to try my best to maintain my weight.



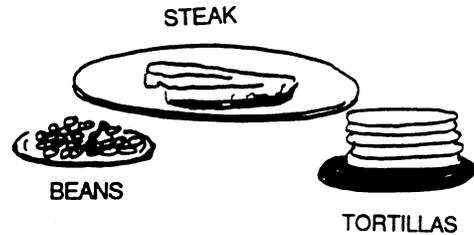
Eat small meals every 2-4 hours.



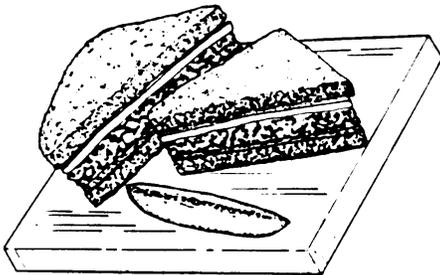
Keep favorite foods within your reach (near your bed, couch or chair).



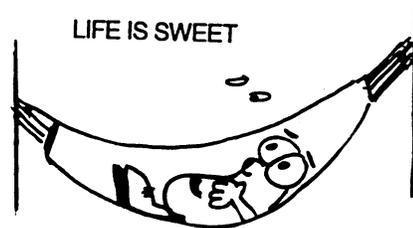
Choose your favorite foods.



Choose foods that don't have a strong smell.



Avoid stress before and during a meal.



Nutritional Tips

Lack of Appetite

Eat in a pleasant place.



Light a candle; "Dine".

Do some light exercise before you eat.
Exercise increases your appetite.



Eat with a friend.



When possible, do not drink fluids *with* your meals. It can make you feel full sooner.



AT 11:00 AM



AT 1:00 PM

Drink a nutritional supplement.
Ask your Dietitian, or health care provider
which one is best for you.



Hunger may only last 10-15 minutes. Be
sure to have food handy to prepare and eat
quickly.

Occasionally treat yourself to a wild, wicked
dessert or other favorite food.

Nutritional Tips

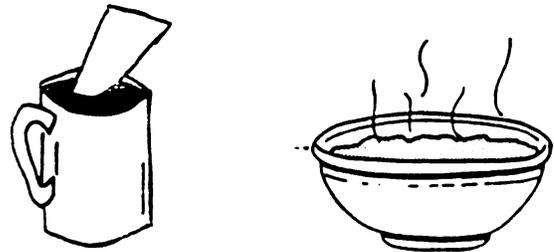


Swallowing Problems

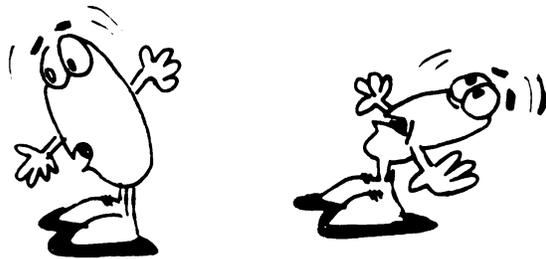
Use a straw to drink.



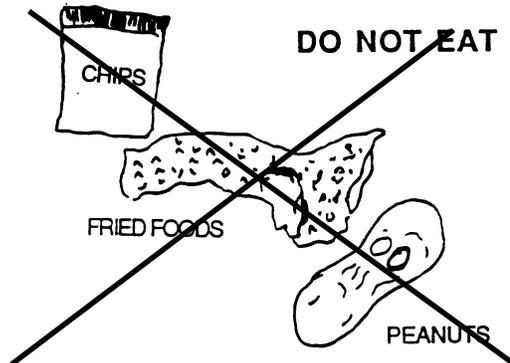
Soften your food by soaking it in liquid, or eat your food with soup.



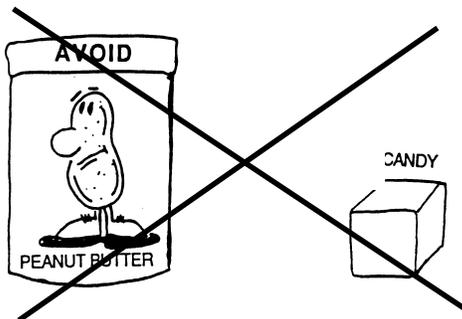
Tilt your head forward or backward to ease swallowing.



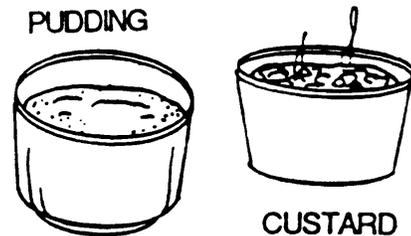
Do not eat coarse or hard foods.



Do not eat dry or sticky foods, including nut butters, raisins and other dried foods.



Try soft bland foods like angel food cake, puddings, custards and flan.





Nutritional Tips

Mouth Ulcers or Thrush

Some of these recommendations may help you, but others may not.

What causes it? It can be oral candida or other infections.

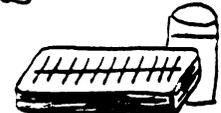


*Don't worry, my friend.
There are things that
you can do to decrease
the pain.*

Serve your foods warm or at a moderate temperature. Avoid temperature extremes.

NEITHER HOT

NOR COLD



Choose soft foods and drinks, not sour foods. Some examples of soft but not sour foods are ...



CANNED FRUITS



SOME NECTARS
AND JUICES

Other soft foods are custard, pudding, and mashed potatoes.

PUDDING

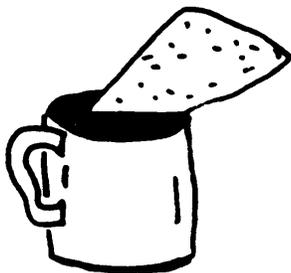


CUSTARD

MASHED
POTATOES



Soak toasts, chips, or crackers in liquids (milk, broth, juices) to soften them.



Try grinding meat in a blender with non-spicy sauce or creamy soup, if it is hard to chew.

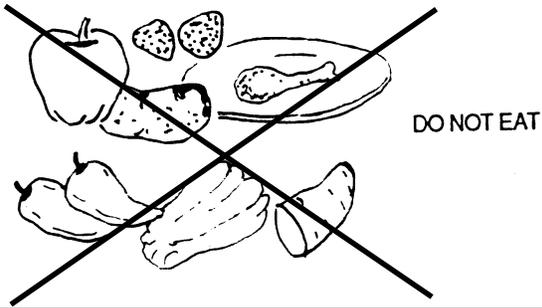


Adapted from Santa Clara County Health Department, San Jose, CA

Nutritional Tips

Mouth Ulcers or Thrush

Do not eat hard or dry foods, or those that have seeds or coarse skin.



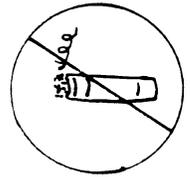
Avoid smoking and alcoholic drinks. They can worsen your mouth and throat pain.



NO DRINKING

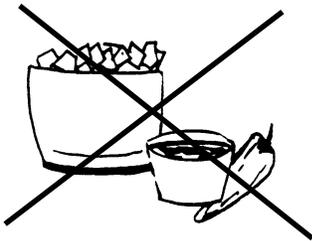


NO SMOKING



AVOID spicy or very salty foods.

WHAT SHOULD I DO? I LOVE TORTILLAS CHIPS WITH SALSA





Nutritional Tips



Nausea and Vomiting

What causes it?
It can be caused by medications.



Do you know what to do to calm your stomach down?



Eat dry and salty foods.
Do not eat very sweet foods.

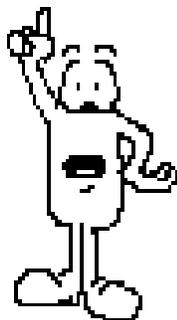


Serve small portions and eat every 2-4 hours.

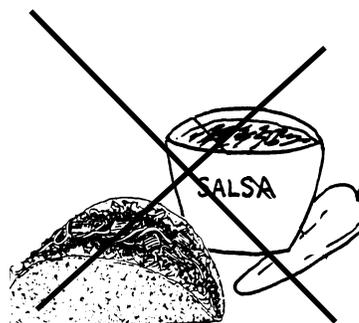
WOW! A BIG ONE. THAT WORM IS TOO BIG FOR JUST ONE MEAL!



EAT SLOWLY



Choose foods that are **not spicy** because they can upset your stomach.

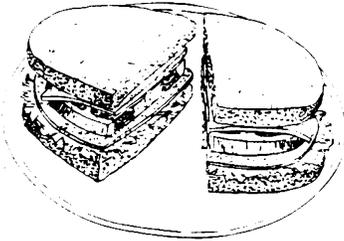


Adapted from Santa Clara County Health Department, San Jose, CA

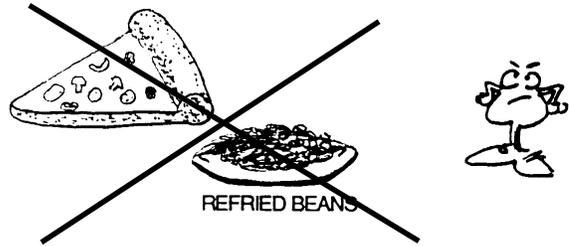
Nutritional Tips

Nausea and Vomiting

Eat cold foods, such as fruit, or a sandwich with cold cuts or plain cheese. Choose foods that do not have a strong smell.



Choose low-fat foods instead of fried or greasy foods.



Drink broth or other liquids between meals, not with meals.

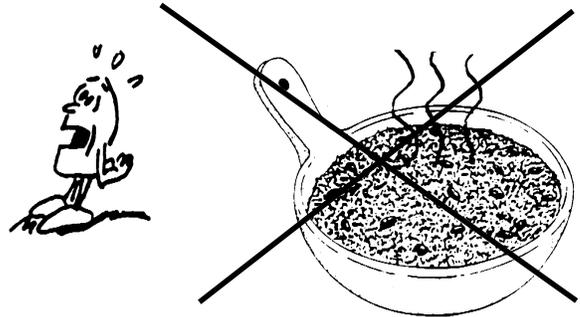


AT 10:00 AM



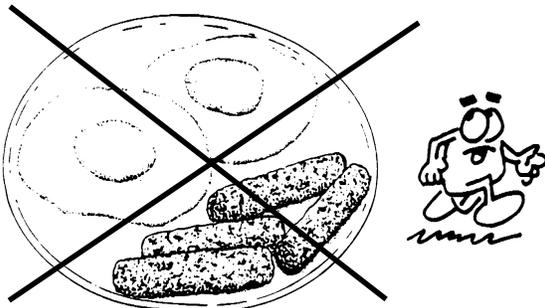
AT 1:00 PM

Avoid your favorite foods while you have nausea.



AVOID ALL SMELLS.

They can take you from nausea to vomiting.



Adapted from Santa Clara County Health Department, San Jose, CA



Nutritional Tips

Diarrhea

What causes it? Some medications, foods, or parasites can cause it.

MEDICATIONS



FOODS



PARASITES



Drink 6 to 10 glasses of fluid a day such as kool-aid, broth, nectars, or juices (except orange, grapefruit, or lemonade.)

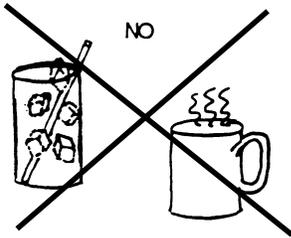


TO

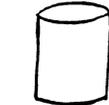


Drink fluids warm or at room temperature, because cold or hot foods can worsen diarrhea.

NO

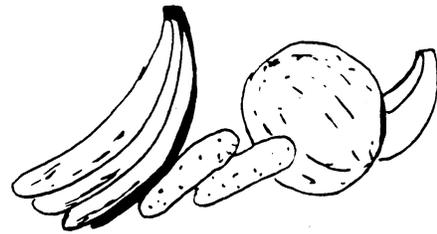


YES



ROOM TEMPERATURE

Eat bananas, potatoes (without the skin), and peaches and apples (without the skin); they can replace potassium losses.



Eat cooked or canned/pureed fruits and vegetables.

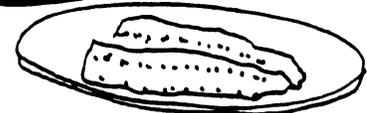
CANNED FRUITS OR VEGETABLES



COOKED VEGETABLES



Eat less greasy foods. Eat fish, chicken with no skin, or baked, instead of fried foods.



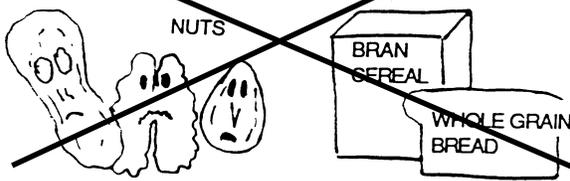
Nutritional Tips

Diarrhea



Decrease the amount of fiber you eat. **Don't eat** raw veggies, fruits (except bananas and peeled apples), whole grain breads, cereals, and crackers.

DO NOT EAT

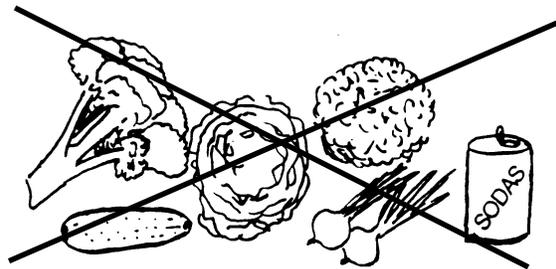


Do Not Drink caffeinated or alcoholic beverages.

DO NOT DRINK



Do not eat foods that can cause gas or stomach cramps, like broccoli, cabbage, beans, or onions. Do not drink sodas.



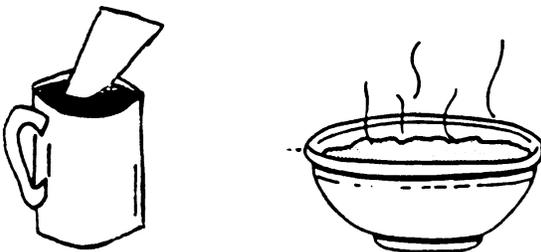
Avoid milk and other dairy products.

DO NOT DRINK OR EAT

FOODS THAT CONTAIN MILK



Rice-water or horchata, also barley and oatmeal are good choices.



Try using Infalyte, Best Lyte, or Cera Lyte.

Best Lyte 1-800-757-6339
Infalyte 1-800-345-0248
Cera Lyte 1-800-507-2250

Nutrition Guidance for Positive Women

Taking Care of Yourself

Learning of your HIV-positive status can be frightening and stressful, but remember, **YOU ARE NOT ALONE!** HIV has spread quickly among all women: single, married, straight, lesbian, teenager, or grandmother. Recently, there has been evidence showing that HIV disease may progress faster in women. The study compared HIV positive women and men, with similar CD4 counts and viral loads. The women seemed to begin having opportunistic infections sooner. The results of the study suggest that women need to be treated earlier. Additional studies are being done as this is being written.

It is common for women to take care of others before they take care of themselves. But being an HIV-positive woman you have your own special needs. They are just as important as others and demand 100% of your attention. Taking care of yourself means:

- ❖ Getting enough rest
- ❖ Regular exercise (more than just walking)
- ❖ Eating a healthy diet
- ❖ Taking all of your medicine, at the right times
- ❖ Making your own needs a high priority

Following these suggestions will help you live with HIV disease, have more energy, and stay well. The most important thing to remember is that you need to take care of yourself, even when the demands from family, partners, parents and others seem to be just as important.

- ❖ To help you deal with stress, request handouts from your provider from Section 3.
- ❖ For tips on how to eat well and plan meals safely and on a budget, ask your provider for the tip pages in Sections 3 and 4.
- ❖ Also, think about preparing meals when you feel well, have more energy, or have more time, and freeze them in meal sized portions for later use. Meals are safe in the freezer for at least two months.
- ❖ Other options include home delivered meal programs if you are not able to prepare healthful meals for yourself.
- ❖ In some areas, there are group meal programs where you need to go to the location, and a meal is prepared for you. Ask your provider or case manager if these programs are in your area.
- ❖ If you cannot afford food, ask about food pantries and soup kitchens, WIC, and Food Stamps.

Keep learning all you can about good nutrition and health. After all it is your life...enjoy every minute of it.

Nutrition Guidance for Positive Women

Special Nutritional Considerations: Pregnancy

Giving birth to a child is a special event in a woman's life, but is stressful to the body. This is especially true for an HIV-positive woman. As soon as you know you are pregnant, it is vital that you receive prenatal care immediately.

Since the body is stressed during pregnancy, it is easier for a pregnant woman to get sick. This is one of many important reasons to eat well and rest during your pregnancy. During pregnancy, you need to increase your usual healthy dietary intake by about 300 calories and 10 grams of protein a day. An extra sandwich a day can do this for you. Use the food guide for pregnancy at the end of this section to meet these needs. It is recommended that women gain 25-35 pounds over the course of the pregnancy. Most women gain 5 pounds the first three months, 10-15 pounds the second three months, and up to 15 pounds in the last three months, when the baby is growing the fastest. Discuss how much YOU need to gain with your health care provider, Registered Dietitian or other nutrition professional. The amount of weight gain will change depending on your age, your weight before pregnancy, and other factors.

There are other problems that can occur with any pregnancy, including high blood pressure, constipation, heartburn, and high blood sugar. Your provider will check for these problems during many of your visits. Should any of these problems occur, they can be controlled through diet and/or medication and should be discussed with your health care provider.

To give you the extra vitamins and minerals needed during pregnancy, many health care providers prescribe a pre-natal vitamin and mineral supplement. Be sure to take this pill with food. If you are given extra iron, increase your fluid and fiber intake to avoid constipation. This means drinking lots of water or fruit juice (not soda), and including fruits and vegetables in most of your meals and snacks.

Be sure to discuss any alternative therapies with your health care provider, including large doses of any vitamin or mineral supplements, other HIV medicines, over-the-counter medicines, herbal therapies, and acupuncture. More is NOT always better and can be harmful to the baby. Remember to talk with your health care provider about any cultural or religious practices, including fasts, which affect your diet.

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Nutrition Guidance for Positive Women

In addition, limit or stay away from caffeine. If you must have some, try to have no more than 8 ounces (1 small cup) of caffeinated coffee or tea, soda (Pepsi, Coca-cola, Mountain Dew, Mellow Yellow, Dr. Pepper and others), or chocolate-containing beverages a day. One to 2 cups of coffee have been shown to negatively effect the outcomes of births. Also, the effect of caffeine lasts 20 times longer for a fetus than for an adult. Limit chocolate candy too. Cigarettes, alcohol and street drugs can cause permanent damage to your baby, and should be avoided.

Once your baby is born, do not be too anxious to lose the extra weight you may have gained. You will lose 15-20 pounds right after the baby is born. For the rest of the weight loss, discuss a slow weight loss plan (about a half to one pound a week), with your health care provider or Dietitian. This will allow you to maintain your muscle, and eat enough of the foods your body needs to stay healthy and give you energy to care for your baby.

FOOD GUIDE FOR PREGNANCY

FOOD GROUP

SERVING SIZE

Bread, Cereal, Pasta & Rice
At least 9 servings

1 slice bread
1/2 hamburger or hot dog bun, or English muffin
3-4 saltines
1/2 cup cooked cereal (2 serving spoonfuls)
3/4 - 1 cup dry cereal (small bowl)

Fruits & Vegetables
At least 6 servings total

3/4 cup juice (small glass)
1 piece fresh fruit
1/2 cup canned fruit (small bowl)
1/4 cup dried fruit (such as raisins) (2 handfuls)

Meat and Alternatives
At least 3 servings

2-3 ounces cooked meats (palm of your hand)
2 hard cooked eggs
4 tablespoons peanut butter or other nut butter
1 cup cooked dried beans (kidney, navy, etc)
1/2 cup nuts or seeds (pumpkin or sunflower)
5-6 ounces tofu

Milk, Yogurt and Cheese
At least 4 servings

1 cup milk (medium glass or a mug)
8 ounces yogurt (single serving sized carton)
1-2 ounces cheese (2-3 slices)
1/2 cup cottage cheese (small bowl)

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Nutrition Guidance for Positive Women

Breastfeeding

While breastfeeding provides excellent nutrition to the baby, HIV has been found in breast-milk. **Since HIV can be passed from you to your baby through breast milk, it is recommended that HIV-positive women use alternatives to breastfeeding.**

Feed your baby the brand of formula suggested by your health care provider. Other alternatives, such as banked breast milk, which is screened for HIV, may be available in your area.

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Nutrition Guidance for Positive Women

Special Nutritional Considerations:

Menstruation and PMS

HIV-positive women may experience changes in their menstrual cycle, including irregularity (not getting a period every month), heavier or lighter periods, or an increase in premenstrual symptoms (PMS), such as breast tenderness, irritability, depression, cramps, and cravings.

Safe guidelines for minimizing these problems include eating a high starch, high fiber, low sugar and low fat diet during the premenstrual and menstrual phases. Many women find some relief by taking a multivitamin/mineral supplement. Cutting back on caffeine may help with breast tenderness. Limiting salty foods (pickles, canned meats and vegetables, most soups, etc.) and snack foods such (potato chips, pretzels and salted crackers) may help decrease bloating. Continue with your regular exercise program, and get enough rest.

Menopause

As with all women going through menopause, you may go through changes such as hot flashes and vaginal dryness. Nutritionally, it is suggested that you increase the number of calcium containing foods in your diet to 4 to 5 a day. These foods include milk, cheese, yogurt, calcium-fortified soy products (soymilk, tofu), calcium-fortified orange juice, green leafy vegetables (collard greens, turnip greens, and mustard greens), and sardines. If you cannot drink milk or eat dairy products, ask your health care provider about a calcium supplement. Exercising is important to maintain calcium in bones, as well as general strength, flexibility, energy and sense of well being.

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Nutrition Guidance for Positive Women

Special Nutritional Considerations

Weight Issues

If you are overweight and wish to reduce or maintain a lower weight, you should do it working with your health care provider, Registered Dietitian or other Nutritional Professional. It is recommended that you lose fat, but try to gain muscle (lean body mass). Building muscle will help with weight loss. It will help you to keep your immune function and avoid illness.

Unplanned weight loss can be serious and needs to be controlled quickly. Tell your primary care provider and Dietitian about any weight loss, especially unplanned and rapid weight loss. Should appetite be the issue, eating small, frequent meals may help. There are also medicines that can help increase your appetite, including Megace (liquid form) and Marinol (pill form) that is normally taken once or twice a day. It is often recommended to take Marinol at night, as you can sleep through the effects but enjoy a bigger appetite the next day. Request the information from Health Assurance (Section 3) on the Healthy Weight Gain Program to learn how to lose fat and gain muscle.

If you are losing muscle, there are several things you can do. Be sure to mention any body changes to your primary care provider. Resistance exercise is needed to maintain muscle. See Section 3 for tips on exercise. Testosterone is one medicine that is used when men lose muscle. There has been some proof (although still in the experiment stage) that this medicine in much lower doses may help women as well. Women require a special preparation testosterone in a much smaller dosage worn as a patch right on the skin. Some synthetic forms of anabolic steroids may be used with caution. Women can experience side effects with these medicines, though less frequently with oxandrolone. Women should not use oxymetholone. Anabolic steroids can cause "masculinization" of the female fetus, among other problems and should not be used during pregnancy. Growth hormone is also a possible choice. If you are taking any these medications to obtain their full benefit, it is very important to make sure you eat enough daily and do resistance exercise 20 minutes a day 3 times a week.

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Nutrition Guidance for Positive Women

If you notice body changes such as your stomach and/or breasts getting bigger, while your arms and/or legs may be getting smaller, be sure to mention this to your health careprovider. This is becoming more common in people using many of the medicines to control HIV. Your provider may also identify that some of your lab tests are showing abnormal results, especially for cholesterol and triglycerides. It is being termed "lipodystrophy syndrome" or lipoatrophy, or the unusual distribution of fat. While these changes may not be directly related to your diet or exercise routine, it is important that you continue to exercise and eat well to maintain muscle. A good diet and routine exercise may also prove to be helpful in this new condition. Ask for the exercise information in Section 3.

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Nutrition Guidance for Positive Women

Special Nutritional Considerations

Yeast Infections

Many HIV-positive women commonly get yeast infections or *Candida albicans*. It can be found on the skin and in the mouth, digestive tract, and vagina. When the immune system is not working well, as with HIV-infection, this type of yeast can grow out of control. You may have vaginal itching and discomfort, or painful chewing and swallowing. Be sure to mention any of these symptoms to your health care provider. There are medicines that can help decrease your symptoms. Section 4 can provide eating tips until you feel better.

The role of diet in the development of yeast infections is questionable. Many find avoiding simple sugars helps, including the sugar in the fluids you drink. You may want to limit the amount of fruit juice, fruit punch, soda, Kool-aid, etc., and drink safe water instead. Taking "swish and swallow" medications following a sugary drink or food can also help. A daily serving or two of yogurt with live cultures, especially *Lactobacillus acidophilus*, may help fight the growth of *Candida albicans*. You can buy the *Lactobacillus acidophilus* by itself, but this product requires refrigeration.

Talk to your Registered Dietitian/Nutritionist about any diet changes you make to fight yeast, especially if any food groups need to be avoided from time to time. She or he can suggest other foods to try so that your eating plan still includes all the nutrition you need while fitting your lifestyle.

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Nutrition Guidance for Positive Women

Resources for Women

There are many groups around the country and the world specifically designed to help HIV-positive women meet their needs. Ask your case manager or health care provider for information about support services in your area.

Project Inform, in San Francisco, has a wide variety of support information available, and can be obtained by contacting their hotline at 1-800-822-7422.

Women Alive, in Los Angeles, (323-965-1564 or 1-800-554-4876) offers support services for women, a quarterly newsletter, and is active in policy and treatment issues affecting women living with HIV.

Other national resource networks include:

The Babes Network: A Sisterhood of Women Facing HIV Together

1001 Broadway, Suite 105
Seattle, WA 98122
206-720-5566 or 1-800-292-1912
<http://www.babesnetwork.org>

Center for Women Policy Studies (CWPS)

National Resources Center on Women and AIDS
2000 P St., NW
Suite 508
Washington, DC 20036
202-872-1770

Chicago Women's AIDS Project

5249 N. Kenmore
Chicago, IL 60640
773-271-2070

Guide to HIV Services and Material for Women

A directory published about every two years.
CDC National AIDS Clearing house
1-800-458-5231 to obtain a copy

HEROES (Helping Each Other Reach Out and Educate Society)

PO Box 41283
Des Moines, IA 50311
515-280-6422

HIV Law Project

841 Broadway, Suite 608
New York, NY 10003

Iris House

2271 2nd Ave.
New York, NY 10035
212-423-9049
www.irishouse.org

Life Force Women Against AIDS

165 Cadman Plaza E., Suite 310
Brooklyn, NY 11201
718-797-0937

National Association of People with AIDS

1413 K St., NW
7th Floor
Washington, DC 20005
202-898-0414
<http://www.napwa.org>

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Nutrition Guidance for Positive Women

National Minorities AIDS Council

1931 13th St., NW
Washington, DC 20009
202-483-6622
<http://www.nmac.org>

National Native American AIDS Prevention Resource Center

134 Linden Street
Oakland, CA 94607
510-444-2051

Project Azuka

PO Box 9173
Savannah, GA 31412
912-233-6733
www.azuka.org

Project Inform

205 13th St, #2001
San Francisco, CA 94103
1-800-822-7422 (hotline)
415-558-9051 (San Francisco Area & International)
<http://www.projinf.org>

PWA Coalition/Sister to Sister Project

50 W. 17th St., 8th Floor
New York, NY 10011

HIV Program for Children, Youth, Women and Families**Title IV of the Ryan White C.A.R.E. Act**

A directory of service organizations is published annually
1-800-362-0071 to obtain a copy

Sister Love, Women's AIDS Project

1432 Donnelly Ave, SW
Atlanta, GA 30310
404-753-7733
www.sisterlove.org

WORLD (Women Organized to Resist Life-Threatening Diseases)

PO Box 11535
Oakland, CA 94611
510-986-0340

**For more information, see
References (Section 10)**

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Nutrition Guidance for Positive Children

Introduction

The nutritional status of a child has unique considerations and therefore requires unique interventions. When a child is HIV-infected, good nutrition not only promotes healing, prevents infections and associated wasting, but is also vital to optimal growth and development and is frequently more difficult to achieve.

This section attempts to help you identify and resolve common situations that could adversely affect the HIV-infected child. This includes:

Quick Nutrition Screen

A set of 20 "**Quick Nutrition Screen**" questions was developed and is located on the next page. Each question is addressed on pages that follow and can be used as handouts.

Nutrition Tip Sheets

For some concerns there is more information provided on a "**tip**" page. The "**tip**" page is mentioned within the text of the answers to the questions from the Quick Nutrition Screen. Topics of the tip sheets include:

1. Dental Care
2. Feeding Your Sick Child
3. Constipation
4. Snacks and High Calorie Suggestions
5. The Toddler and Pre-School Aged Child Eating Behaviors
6. Giving Medications
7. Avoiding Foodborne Illness

For the Clinician

In addition, there is a special area designed for the clinician that addresses:

1. General Monitoring
2. Pediatric Enteral and Parenteral Nutrition
3. Complementary Nutritional Therapies

For More Information see References UPDATE 10

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Nutrition Guidance for Positive Children

Quick Nutrition Screen Questions

For each statement below, circle the **YES** column for those that apply to you and the **NO** column for those that do not.

1. My child has not gained enough weight or has lost weight **YES NO**
2. My child is eating less than usual **YES NO**
3. My child does not eat beef, pork, chicken, turkey or fish **YES NO**
4. My child does not eat fruits and/or vegetables **YES NO**
5. My child does not drink milk or eat dairy products **YES NO**
(e.g., cheese, yogurt, ice cream)
6. My child does not eat whole-grains **YES NO**
(whole grain breads and cereals)
7. My child drinks more than 8 ounces of soda, fruit juice
and soft drinks or tea/day **YES NO**
8. My child is over 2 years old and continues to drink
from a bottle **YES NO**
9. My child has gas, bloating or stomach aches a lot **YES NO**
10. My child has loose or watery bowel movements
or is constipated **YES NO**
11. My child complains that it hurts to chew or swallow **YES NO**
12. My child does not take a vitamin **YES NO**
13. My child takes extra vitamins or herbs **YES NO**
14. Our family has difficulty getting enough food **YES NO**
15. We do not have a place to cook or to keep our foods cold **YES NO**
16. I often don't feel like eating, food shopping or cooking **YES NO**
17. My child has high blood cholesterol **YES NO**
18. My child has high blood pressure **YES NO**
19. I have a hard time getting my child to take the medicines **YES NO**
20. My child does not show interest in active play **YES NO**

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Nutrition Guidance for Positive Children

Quick Nutrition Screen: Question #1

More information about your YES answers



My child has not gained enough weight or has lost weight

Continued gradual growth and weight gain and a healthful diet are extremely important in maintaining the best possible health for normal growth and development of all children. When a child is infected with HIV, normal growth and weight gain become even more important. Not only is the child's body growing, it is also dealing with the extra demands and effects of the disease, as well as coping with possible side effects of the treatment.

A Registered Dietitian / Nutritionist can help you identify the possible causes of the poor growth and weight gain, and help check on your child's progress on his/her "Growth Curve" that your health care provider keeps. This provides a way to see what your child should weigh. It can also show that if what you are doing to increase dietary intake is helping your child's growth get "back on track".

Common reasons for eating problems include:

- ❖ Sore mouth/throat - see **Nutrition Tip Sheets #2** and **#4** for suggestions
- ❖ Nausea and vomiting, upset stomach, diarrhea, constipation - see **Nutrition Tip Sheets #2** and **#3** for suggestions
- ❖ Emotional or behavioral problems - consult your primary care provider for a referral for psychological assessment and counseling
- ❖ Mealtime atmosphere - see **Nutrition Tip Sheet #5** for suggestions
- ❖ Picky eater - see **Nutrition Tip Sheets #4** and **#5**
- ❖ Sick a lot - see **Nutrition Tip Sheets #2** and **#4**

Be sure to call your health care provider if your child has diarrhea and/or a fever, especially in very young children.

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Nutrition Guidance for Positive Children

Quick Nutrition Screen: Question #2

More information about your YES answers



My child is eating less than usual

Eating behaviors:

All toddlers and pre-school aged children are learning to be independent, so it is common for food likes and dislikes to become bigger issues at this age. Caregivers must provide not only healthy foods to meet the child's growing needs, but also establish a comfortable eating setting. In this way, healthful eating attitudes and habits can develop. See **Nutrition Tip Sheet #5** for suggestions on developing good eating habits and attitudes.

Getting your child to eat when they do not feel well:

Side effects of illness and treatment vary with each child and it is not possible to predict how the disease or treatment may affect a child. Tips that help in managing illnesses and side effects of treatment also vary with each child. Some approaches and foods that work with one child may not work with the next.

See **Nutrition Tip Sheets #2** and **#6** for ideas to control the side effects of treatments and make the best of nutrition during these difficult times.

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Nutrition Guidance for Positive Children

Quick Nutrition Screen: Question #3

More information about your **YES** answers



My child does not eat beef, pork, chicken, turkey or fish

Children with HIV should eat a high protein diet. Animal foods such as meat, fish, poultry, and dairy products like milk, cheese and yogurt are all good sources of protein. At the age of nine months, most children will accept pureed meats. Children should be about one year of age when they are offered table meats. At one, most children can eat tender meats. Sometimes children with HIV require a little extra time to get ready to eat different types of solids. When a child shows up and down chewing and is able to move food to the sides of his/her mouth then he/she is ready for small bites of soft meats. If your child has reached 15 months of age and does not show these signs, then you should consult your physician or a Registered Dietitian or other nutrition professional.

Sometimes small children and toddlers do not eat different types of meats, fish and poultry because they do not like the texture or the way that food feels in his/her mouth. This kind of problem requires a little more time and patience with feeding. Start by offering very soft, well-cooked or stewed meats. Try adding them to his/her favorite foods in very small pieces. For example, add a small amount of chicken, turkey or beef to soup, or add these foods to mashed potatoes or pasta dishes. As they become used to the taste and feel, they will accept larger pieces. See **Nutrition Tip Sheet #5** for more ideas on how to feed your toddler.

If your child is not ready or continues to refuse meats even in very small pieces, continue to offer these foods at least once a week. Meanwhile, how can you be sure your child is receiving enough protein in his or her diet? Foods such as scrambled eggs, peanut butter, tofu and cooked beans all are excellent sources of protein and are fine meat substitutes.

The following foods are considered a serving of protein:

	<u>1 year-old</u>	<u>2-3 years old</u>	<u>4-5 years old</u>
Eggs	1	1	1
Peanut Butter	Not recommended	1 Tablespoon	3 Tablespoons
Cooked Beans & Peas	1/4 cup	1/3 cup	1/2 cup
Meat, Poultry, Fish	1 ounce	1 ounce	1-2 ounces
Tofu	1/3 cup	1/3 cup	1/2 cup

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Nutrition Guidance for Positive Children

Quick Nutrition Screen: Question #4

More information about your YES answers



My child does not eat fruits and/or vegetables

A good diet includes at least 5 servings of fruits and vegetables per day. Most children like fruits because of their sweet taste. Vegetables are often harder to get them to eat. See **Nutrition Tip Sheet #5** for ideas. The vitamins and minerals found in fruits and vegetables are very important to support the immune system and help fight infections. Fruits and vegetables are also a good source of fiber and water and are important for your child's health and bowel function. See **Nutrition Tip Sheet #3**.

Add fruit and vegetables to your child's diet by trying the following:

- ❖ Offer 8 ounces of fruit juice per day (this equals 2 servings of fruit)
- ❖ Serve soups and stews thick with different kinds of vegetables
- ❖ Let your child choose the vegetables he/she wants to add to homemade soups
- ❖ Offer raw fruits with a yogurt dip
- ❖ Offer vegetables with a creamy dressing or dip. Make the vegetables into fun, creative shapes using a paring knife, small cookie cutters, or a ripple cutter
- ❖ Sweeten vegetables such as carrots, winter squash, sweet potatoes, yams or cabbage with a drizzle of maple syrup or orange juice
- ❖ Scatter vegetables on top of pizza or cooked in casseroles
- ❖ Melt a favorite cheese over vegetables, such as cheddar cheese over broccoli or cauliflower
- ❖ Add shredded vegetables such as carrots or zucchini to ground beef and make into patties for burger
- ❖ Add shredded zucchini or carrot to potato pancake batter
- ❖ Puree vegetables in a blender, then add the batter to soup, stews, sauces, or baked products such as muffins, quick breads, or brownies

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Nutrition Guidance for Positive Children

- ❖ Puree two packages of frozen spinach, thawed and squeezed dry, and one 16-ounce jar of beets, drained; add to devil's food cake batter and bake as directed
- ❖ Serve waffles with fruit for dinner
- ❖ Pizza or potatoes can be healthy morning meals
- ❖ Wrap vegetables in biscuit dough. Bake and serve
- ❖ Cut up small pieces of fruit and stir into frozen yogurt, ice milk, or ice cream
- ❖ Serve dried fruit as a treat instead of cookies or candy

If most fruits and vegetables are still refused, a vitamin/mineral supplement will help provide the major nutrients missing from the diet.

The following are considered one serving of fruits or vegetables:

9-10 months:	4 ounces of fruit juice 6 to 8 tablespoons of mashed/pureed fruits or vegetables
11-12 months:	4 ounces of fruit juice 1/2 cup of soft, canned fruits or vegetables, cut-up
1-3 years:	4 ounces of fruit juice 1/4 to 1/2 cup of fruits or vegetables 1/2 piece fresh fruit
4 years or older:	4 ounces fruit juice 1/2 cup or 1 medium serving of fruits or vegetables 1/2 to whole piece fresh fruit

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Nutrition Guidance for Positive Children

Quick Nutrition Screen: Question #5

More information about your YES answers



My child does not drink milk or eat dairy products, such as cheese, yogurt or ice cream

Some children simply do not like or refuse milk or dairy products. The following is for those children who do not get enough milk and dairy products to meet their body's needs for calcium and other nutrients.

For those children, who do not drink milk or eat dairy products because they have symptoms like gas, bloating, cramps and diarrhea when milk products are eaten see Quick Nutrition Screen Question #9, where lactose intolerance is discussed.

Everyone, especially children, needs the vitamins and minerals found in milk and milk products. Milk products provide a lot of calcium. This nutrient is necessary to build and keep strong bones and teeth in babies, infants, children, and adults. Normal growth is sometimes a problem with children infected with HIV. Avoiding or not getting these foods in the diet for more than a few months could produce some nutrient deficiencies and create growth and bone development problems.

Here are some ideas to add milk and milk products to the diet:

Use milk in cooking:

Add fluid milk to:

- ❖ Creamed soups
- ❖ Puddings and custards
- ❖ Sauces and gravies
- ❖ Hot cereals
- ❖ Scalloped and au gratin potatoes

Add dry milk to:

- ❖ Mashed potatoes
- ❖ Dough for tortillas
- ❖ Bread, biscuits, muffins
- ❖ Meatloaf, meatballs, hamburgers

Note: 1/3 cup of dry milk=1 cup of fluid milk

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Nutrition Guidance for Positive Children

Try milk drinks:

Yogurt Smoothie

Blend or mix

1 cup of plain yogurt

2 tablespoons of powdered milk

Your favorite fruit

1/2 cup of milk

Egg Nog

Blend or mix

1 cup of milk

2 tablespoons of powdered milk

Pasteurized egg substitute

Dash of nutmeg

Vanilla

A little sugar if desired

Hot Chocolate

Made with milk instead of water

Add 1 tablespoon of powdered milk for additional nutrition

Add cheese to favorite foods:

- ❖ Cooked vegetables, pizza, tacos, enchiladas, nachos, potatoes
- ❖ Chili, chile relleno, lasagna, casseroles, refried beans, salads

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Nutrition Guidance for Positive Children

Quick Nutrition Screen: Question #6

More information about your YES answers



My child does not eat whole-grains (whole wheat bread, whole-grain cereals)

Grains are an excellent source of energy, B1 (thiamine) and B2 (riboflavin). Thiamine and riboflavin are important for energy metabolism and a healthy nervous system. People who are HIV infected are more likely to become low in these B vitamins because they are absorbed in the small intestine and stored in the muscle. Malabsorption, diarrhea, wasting, and malnutrition can all contribute to low levels of these vitamins.

Grains are an excellent source of fiber. The fiber in whole grains helps normalize the bowels, that is, helps stop constipation and diarrhea. See **Nutrition Tip Sheets #2** and **#3**. The energy (calories) from the grains helps spare the body's protein for muscle development. Some children prefer not to eat whole grain breads and cereals because they are not familiar with the taste and texture. Let them see you enjoy eating these foods.

Keep these foods on hand and offer them regularly:

- ❖ Whole grain crackers with cheese or peanut butter
- ❖ Muffins made with whole wheat
- ❖ Whole grain breads for sandwiches and toast
- ❖ Whole grain cereals, waffles, pancakes, tortillas, and pita bread

See **Nutrition Tip Sheet #5**.

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Nutrition Guidance for Positive Children

Quick Nutrition Screen: Question #7

More information about your YES answers



My child drinks more than 8 ounces of soda, "fruity" juices or drinks or tea each day

Soda, soft drinks and tea are not good sources of nutrition and if consumed in large quantities often replace nutritious foods that will help your child grow, gain weight and stay well. While fruit juice does contain some vitamins and minerals, it usually has only a few nutrients. See **Nutrition Tip Sheet #5**. On the other hand, "fruity" soft drinks, like Kool-Aid, Hawaiian Punch or Orange Delight contains little or no natural fruit juice and little if any nutrients. Your child needs a variety of nutrients to be able to grow and be healthy.

If your child is at least one year old and can drink milk without problems:

- ❖ Offer your child between 24 and 32 ounces total of milk each day. If your child is over 2 years old, low-fat milk can be used. Under 2, whole milk is recommended.
- ❖ Limit fruit juice to 8 ounces per day (unless otherwise directed).
- ❖ If your child wants more to drink, offer water.
- ❖ Offer foods that contain a lot of water as well as nutrients such as fresh fruit, puddings, ice cream, frozen yogurt, shakes and fruit slushes.

If your child is at least one year old and cannot drink milk:

- ❖ See **Nutrition Screen Queen #9**
- ❖ Offer your child between 24 oz and 32 oz of Lactaid, or protein and calcium-fortified soy milk. There are calcium-fortified rice milks, but because they are so low in protein, they should not be used.
- ❖ You may replace milk with a doctor ordered supplement (Pediasure, Nutren Jr, Resource for Kids). **Ask your health care provider.**

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Nutrition Guidance for Positive Children

Quick Nutrition Screen: Question #8

More information about your YES answers



My child who is over 2 years old continues to drink from a bottle

Between their first and second birthday, most children will be drinking from a cup. By this age some children will still want their bottle more for comfort rather than because they are hungry. If your child is able to drink from the cup, he or she does not need a bottle. Try offering stuffed animals or a special blanket to replace the bottle at naptime and bedtime. Continued use of the bottle allows a constant contact of sugary liquid (from juice, punch or milk) with the teeth that causes cavities, pain, and may eventually require dental surgery to have the diseased teeth pulled. See **Nutrition Tip Sheet #1**.

If the child is allowed to drink frequent bottles of juice or milk throughout the day, their stomachs become full of liquids and they have little interest in eating their meals or snacks. Children cannot get all the nutrition that they need from milk and juice. Nutrients that are important for growth and a healthy immune system will be missing from the child's diet. In addition, this is the time of a toddler's life that they should be learning to eat solid foods, drink from a cup and feed themselves. If they are drinking rather than eating most of their nutrition, they are not practicing the skills needed to successfully feed themselves. See **Nutrition Tip Sheet #5**.

If your child is drinking more than 24 ounces of milk from the bottle per day and is refusing to eat their food, try the following:

- ❖ Limit milk to 24 ounces per day
- ❖ Limit juice to 8 ounces per day
- ❖ Offer all liquids from a cup before allowing the bottle
- ❖ Don't give liquids at least one hour before meals
- ❖ Offer only 6 to 8 ounces of liquid at the mealtime
- ❖ Praise your child for drinking from the cup and eating by himself
- ❖ Use a "sippy" cup that can be sealed for travel

Talk with your healthcare provider about your concerns

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Nutrition Guidance for Positive Children

Quick Nutrition Screen: Question #9

More information about your **YES** answers



My child has gas, bloating or stomach aches a lot

The gas, bloating and stomach ache may be caused by lactose intolerance. Other factors that can cause gas, bloating and stomach ache include medication intolerance, gastro-esophageal reflux, or opportunistic infections. It is important to talk with your health care provider to determine the cause of the symptoms.

Lactose intolerance means that the body does not have (or have enough of) the enzyme lactase to be able to digest or absorb the carbohydrate called lactose or milk sugar that is found in milk. Those with lactose intolerance have increased gas, abdominal bloating, or diarrhea after eating foods containing lactose. Lactose is found in milk or anything made from milk. This includes cheese, yogurt, ice cream, instant breakfast powder, infant formulas made from cow's milk, and breast milk.

The level of lactose intolerance may vary from child to child; some may tolerate cheese and yogurt made with live cultures, but not milk or ice cream, while another may not tolerate any of these. Some fermented dairy products like **yogurt, sour cream, buttermilk**, or specially treated milks like **Lactaid** or **acidophilus milk** may be better tolerated. Non-dairy products such as **calcium fortified rice milk, soy milk** and **soy cheese** are also good options. Drinking milk or eating dairy products in small amounts throughout the day may be tolerated better than a large serving all at once.

Talk with your Registered Dietitian/Nutritionist about other milk substitutes that may be good for your child.

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Nutrition Guidance for Positive Children

Quick Nutrition Screen: Question #10

More information about your YES answers



My child has loose or watery bowel movements or is constipated

Diarrhea is defined as 3 or more watery bowel movements per day. It can be caused by a viral or bacterial illness, food allergy or intolerance, by the HIV virus, or by a medication. Make sure to tell your health care provider if diarrhea lasts more than 3 days. It is important that your child drinks plenty of fluid to prevent dehydration, and eats solid foods as tolerated. Sometimes it is helpful to avoid milk and dairy products for a few days. Food or infant formula should not be withheld for more than one day. See **Nutrition Tip Sheet #2** for suggestions.

Constipation is defined as hard, difficult to pass bowel movements. It is most often caused by not getting enough fluid and/or fiber daily; certain medications can cause it, and physical activity can help to improve "regular" bowel movements. See **Nutrition Tip Sheet #3** for suggestions to increase the fluid and fiber in your child's diet.

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Nutrition Guidance for Positive Children

Quick Nutrition Screen: Question #11

More information about your YES answers



My child complains that it hurts to chew or swallow

Candidiasis, also called thrush, and herpes are common in infants and children with HIV. They can be treated with medicine, so tell your doctor if your child seems to have a sore mouth or throat. Be sure to take your child to the dentist regularly, and gently brush teeth and clean gums after each meal. See **Nutrition Tip Sheet #1**.

In general, hot foods and carbonated drinks can irritate tender tissues in the mouth and throat. Foods that are soft, cool or room temperature and are simply prepared with little or no seasoning are tolerated better.

Try these suggestions:

- ❖ Offer popsicles, ice cream, frozen yogurt, sherbet and frozen fruit to help numb the mouth and reduce pain
- ❖ Offer soft, mildly flavored foods like mashed potatoes, scrambled eggs, applesauce, bananas, pears, macaroni and cheese, pasta, rice, soups, cooked cereal, puddings, and custard
- ❖ Offer apple juice or fruit nectars
- ❖ Try drinking liquids through a straw
- ❖ Cut foods into small pieces
- ❖ Add butter, thin gravies, and sauces to make foods easier to swallow
- ❖ Blenderize meats and vegetables in extra liquid
- ❖ **AVOID:** tomatoes, citrus fruit and their juices, spicy foods, rough or hard to chew foods like crackers, peanut butter, and hard cereals

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Nutrition Guidance for Positive Children

Quick Nutrition Screen: Question #12

More information about your YES answers



My child does not take a vitamin

Infants and children with HIV have increased needs for certain vitamins and minerals, but the best amount to give is not yet known. Always speak to your doctor and/or Registered Dietitian or other nutrition professional before giving your child a vitamin or mineral supplement.

Infants

Vitamins and minerals are added to infant formulas; if your infant is drinking about 24 to 28 ounces of formula a day, he/she is probably getting enough vitamins and minerals. If your infant is drinking less than 24 ounces of formula, then a liquid multivitamin is generally recommended. Liquid vitamins usually do not contain minerals. When your infant is old enough to chew well, it is a good time to switch to the chewable tablet containing minerals.

Children

A multi-vitamin **with** minerals in liquid or pill form is recommended for all children over 1 year of age with HIV. The supplement should provide no more than 100% of the Recommended Dietary Intake (RDI) or Recommended Dietary Allowance (RDA). Brand names of some children's chewable vitamin and mineral supplements that will meet your child's needs include: Bug's Bunny with Minerals, Flinstones Complete and Centrum for Kids Complete.

Generic and store brands may also be good. Compare the label with one of the above to make sure it contains all of the same vitamins and minerals, in the same amounts. You will notice that the label will also tell you if it provides 100% of the RDA or RDI.

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Nutrition Guidance for Positive Children

Quick Nutrition Screen: Question #13

More information about your YES answers



My child takes extra vitamins or herbs

Children with HIV infection have increased needs for vitamins and minerals. A normal diet may not provide adequate amounts of key nutrients, either because of nutritional losses with vomiting or diarrhea or because of increased needs to fight infection. It is recommended that children with HIV/AIDS take a daily pediatric multiple vitamin and mineral supplement which provides 100% of the Recommended Dietary Allowances (RDA) for the B vitamins, Vitamins A, D, E, C, folic acid, iron, selenium and zinc. Children younger than 2 years old should be given a liquid vitamin/mineral preparation. Children older than 2 years old may be given a chewable tablet.

Herbal remedies are not recommended for children. Safe dosages for children have not been determined. Dosages of key ingredients may vary from product to product. Plus, how herbs interact with medications is not known. The small body size of children makes it easy to mistakenly give toxic dosages. If you are considering offering your child an herbal remedy, discuss this with your child's pediatrician first.

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Nutrition Guidance for Positive Children

Quick Nutrition Screen: Question #14

More information about your YES answers



Our family has difficulty getting enough food

Many families have difficulty paying bills and buying enough food. In the USA we are fortunate because we have many government sponsored and privately sponsored food programs. Some of those programs include the Special Supplemental Food Program for Women, Infants, and Children (WIC), Food Stamps, School lunch and breakfast, soup kitchens, food pantries and home delivered meal programs.

Your Registered Dietician or other health professional, Nutritionist, social worker, or case manager can help you enroll in these programs if you are eligible.

Unfortunately, even with these food programs, many families still have difficulty keeping enough food in the house all the time. Moreover, some of us may not be enrolled in food programs but still want to save money. Some tips for managing your family's meals on a limited income are below.

Tips for managing your family's meals on a limited income:

- ❖ Buy store brand items. They are usually less expensive than brand name foods. Store brand frozen foods are especially economical.
- ❖ Try to buy the week's "specials". It may be possible to save as much as 40 - 50 cents a pound on meat if you buy it on special. However, watch "bargains". If an item is featured make sure it is actually priced lower than usual and is really the least expensive option. Also watch the expiration date, and don't buy meat that is outdated.
- ❖ You may find markdowns on slightly old fruits and vegetables on Saturdays. If a head of lettuce or escarole has been trimmed down so that the dark outer leaves are gone - it is too old. Bagged apples and oranges are usually less expensive, but be sure to check them for freshness. See **Nutrition Tip Sheet #7**.

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- ❖ Buy fresh produce in season.
- ❖ To get the most value for your dollar, it is important to learn how to cook basic foods. Next to eating out, the most expensive thing is buying “convenience” foods. In general, the more processed the food is, the more expensive it is. For example, it is less expensive to make mashed potatoes from whole potatoes than to buy instant mashed potatoes.
- ❖ If you buy frozen vegetables, it is more economical to buy the packages without seasoning or sauces built in and then add your own.
- ❖ Spices can be expensive, but they will save you money when you buy foods without seasonings and add your own. Buy a spice once or twice a month to build up a good selection. Fresh herbs such as cilantro and parsley may be less expensive, but won't last as long.
- ❖ To lower your food budget you may want to shop for less expensive foods to substitute for the ones you currently buy. For example beef might be replaced with turkey or beans. If prices are up on rice or grits, substitute with pasta or bread.
- ❖ If you really enjoy eating meat, learn what good pieces of meat look like. There are many cuts between sirloin steak and hamburger. Bone-in chuck steaks cost about the same as hamburger and make great broiled steaks. You can also serve meat with rice or vegetables so that the meat portion size can be smaller.
- ❖ Learn to read labels. Ingredients are listed in order of quantity.
- ❖ Learn terms and standards specified by the USDA. For example, fruit punch is not 100% fruit juice, luncheon meats have more meat than meat loaves such as chicken loaf, and processed cheese has less cheese because fillers are used.
- ❖ Pay attention to packaging, for example, sugar in the bag is cheaper than in the box, and spices in fancy boxes are more costly.
- ❖ Use unit pricing - the cost per ounce or per unit of the product - to compare the cost of similar products. Unit prices can be found on the label or the shelf below the product.

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Nutrition Guidance for Positive Children

Quick Nutrition Screen: Question #15

More information about your YES answers



We do not have a place to cook or to keep our foods cold

Not having a place to cook or store food can present a real problem to you and your child's health. Some families may have access to meals in a group home or shelter, but the group home may only offer three meals, which may not be enough for a growing child. Other families may not have access to meals or meal preparing facilities at all. See below for more tips on foods that don't require refrigeration and/or a stove.

Foods that don't require stove, oven, or refrigeration (unless there are leftovers):

- Peanut butter and jelly* sandwiches
- Raisins, dates, figs and other dried fruits
- Canned fruit or applesauce*
- Peanuts, cashews, almonds, Brazil nuts and other nuts
- Pumpkin and sunflower seeds
- Crackers such as saltines, Ritz, graham crackers
- Bread, rice cakes, pretzels, bread sticks, granola, rolls, bagels
- Trail mix, granola bars, angel food cake
- Canned tuna,* chicken,* ham,* and beans*
- Bananas, apples, pears, and oranges
- Dry ready-to-eat cereals, instant hot cereal made with hot tap water
- Dried milk, canned milk,* Parmalat* (milk in a box)
- Liquid supplements such as Pediasure,* Nutren Jr.,* Peptamin Jr.,* and Kindercal*

**Buy the smallest amount that you can consume at one meal, because leftovers do need refrigeration. Consider using an ice chest for leftovers, where ice is replaced as needed.*

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Nutrition Guidance for Positive Children

***Requires stove/hot plate/microwave but not refrigeration
(unless there are leftovers):***

- Canned creamed corn, spaghetti, stews, chili
- Canned soups
- Canned beans
- Canned yams
- Boxed macaroni and cheese mix
- Pasta
- Instant grits, oatmeal, cream of wheat
- Instant mashed potatoes, baked potatoes
- Cocoa Mix
- Popcorn

***Requires refrigeration once opened, but no stove/hot plate/
microwave:***

- Juices - V-8, orange, apple, cranberry, grape
- Some fresh fruits and vegetables
- Milk, yogurt, cheese, cottage cheese, prepared puddings and sour cream
- Lunch meats

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Nutrition Guidance for Positive Children

Quick Nutrition Screen: Question #16

More information about your YES answers



I often don't feel like eating, food shopping or cooking

It is understandable that if you are ill yourself, you may not always have the energy to shop or prepare a meal for your child. It is especially important that you let health care providers, friends, and family know about this so that you can get some extra support and help. Your nutritionist, social worker, or case manager may be able to help you locate a free meal delivery service if you are eligible. It is important to plan ahead for a time when you may not want to make that trip to the store, or prepare a complicated meal. It helps to have some foods on hand at home. There are certain foods which can help you put a healthy meal together fast.

The following foods can help make food preparation easier:

- ❖ Canned meats and canned ham are fully cooked and ready for sandwiches or can be added to soups or salads. Canned tuna or salmon can be mixed with bread crumbs and egg to make patties or fish burgers.
- ❖ Canned beef stews, canned spaghetti, and canned soups. You can also increase the nutritional value by adding cooked meat or vegetables.
- ❖ Canned pork and beans, canned baked beans, canned chili beans. Canned beans are faster to make than dried beans are. Try heating these up and putting on a baked potato. Top with cheese. You can also try mashing the beans and spreading on crackers, in a sandwich, or rolled in a tortilla.
- ❖ Canned chili - add extra beans or meat, try putting on a baked potato or over a salad, top with grated cheese, tortilla chips, and sour cream.
- ❖ Frozen pizza - add extra cheese and/or vegetables if you want.
- ❖ Boxes of macaroni and cheese, boxed rice mix and noodle dishes, and boxed scalloped potatoes - add grated cheese, and/or canned peas, or tuna, chopped cooked meat or chicken.
- ❖ Cereal hot or cold - add extra fruit and nuts.
- ❖ Hot cocoa mix - mix with milk versus water.
- ❖ Peanut butter - can be spread on bread, or put on fruit or vegetables.
- ❖ Cottage cheese, yogurt, cheese slices, pudding, ice cream.

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- ❖ Hard boiled eggs - boil a dozen eggs at a time and store them in a covered container for a week in the refrigerator. Eat them plain as a snack or at mealtime. You can also chop them up and add to cream soup, salad, or make egg salad, or deviled eggs.
- ❖ Hot dogs and sandwich meats.
- ❖ Sip high-calorie drinks such as shakes and supplements throughout the day.
- ❖ Make clean up easier by using disposable cooking pans, plates, and cups.
- ❖ Keep take-out food menus and telephone numbers on hand.
- ❖ Accept help from friends and family.
- ❖ On days when you are feeling well buy, prepare, and freeze extra food so you'll have it readily available for later.

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Nutrition Guidance for Positive Children

Quick Nutrition Screen: Question #17

More information about your YES answers



My child has high blood cholesterol

Currently, there are no specific guidelines for changing the diet when a child with HIV infection has high blood cholesterol. There has been a trend for lipid (fat) levels to rise, especially when highly active antiretroviral therapy (HAART) is used, but it has not been shown that dietary changes will lower lipid levels.

However, it is wise to begin early to help your child develop good eating habits for long-term health and the prevention of other diseases, such as heart disease, later in life.

Be sure to provide enough calories and nutrients for optimal growth and be sure not to limit too many foods. For example, if you decide to limit your child's egg consumption to three eggs per week, you should find a heart healthy alternative such as oatmeal, pancakes, waffles, or cereal with low-fat milk, to replace the eggs. Because this is such a critical period of growth, be sure to work with a Registered Dietitian or other nutrition professional.

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Nutrition Guidance for Positive Children

The following is a list of foods to decrease (but not eliminate), and foods to choose instead:

Foods to Limit:

- Whole eggs, especially the yolk
- High fat meats such as:
Regular ground beef, canned beef
Pork - spareribs, blade rolls, poultry with skin, fried chicken, bacon, sausage, beef or pork hot dogs, bologna, salami, organ meats- liver, kidney
- Egg noodles
- Commercial baked pastries, croissants, cookies
- Flour tortillas

Alternative Choices:

- White part of egg, cholesterol-free egg substitute
- Lean meats such as:
Lean ground beef, chicken, turkey
Pork - tenderloin, leg or shoulder
Poultry without skin, baked/broiled
Turkey bacon, soy bacon, trimmed veal, Low-fat chicken or turkey hot dogs
Turkey, lean ham or lean beef lunch meats
- Pasta, macaroni
- Homemade baked goods using vegetable oil and skim or 1% milk
- Corn tortillas
- Fresh fruits and vegetables
- Cooked beans and peas

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Nutrition Guidance for Positive Children

Quick Nutrition Screen: Question #18

More information about your YES answers



My child has high blood pressure

High blood pressure in children is relatively uncommon, but there are many things that could cause high blood pressure in children with HIV infection. Some causes might be kidney disease, heart disease, medications, and maybe diet. Your health care provider will investigate the cause of your child's high blood pressure if there are three high readings. It would be wise to lower the salt content of your child's diet in any case. Talk with your Registered Dietitian/Nutritionist or health care provider.

Try to use less salt in meal preparation and do not sprinkle food with salt.

Foods that are high in sodium and may need to be limited:

- ❖ **Foods with visible salt:** salted nuts, potato chips, tortilla chips, salted popcorn, crackers, and pretzels
- ❖ **Processed foods:** canned foods like soup, vegetables, chili, canned beans, tomato sauce, and pizza sauce
- ❖ **Convenience foods:** frozen meals, boxed macaroni and cheese, rice or noodle mixes, boxed stuffing, Ramen noodles, instant oatmeal
- ❖ **Baked goods and prepared mixes:** biscuits, cornbread, muffins, pan cakes, waffles, cakes
- ❖ **Canned or cured meats:** ham, bacon, salt pork, sausage, Bologna, salami, hot dogs, sardines
- ❖ **Dairy products:** cheese, processed cheese spread, buttermilk, cottage cheese
- ❖ **Seasonings:** salt, seasoned salt, onion salt, garlic salt, soy sauce, barbecue sauce, bouillon cubes
- ❖ **Other salty items:** olives, pickles, relish, capers, prepared mustard, ketchup, sauerkraut

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Nutrition Guidance for Positive Children

Quick Nutrition Screen: Question #19

More information about your YES answers



I have a hard time getting my child to take the medicines

Children can have a particularly hard time taking medicines. The large number of medications, large size of some of the pills, horrible tastes of many liquid medications, and additional diet changes to accommodate the medications all make it hard for a child.

The following suggestions may make it easier to give medications:

- ❖ Be honest with your child. Talk with him or her before offering new medicines or changing his medicine schedule.
- ❖ Whenever possible, give your child some control over how to take medicines. For example, ask if he or she would like to take the medicine before or after a favorite story or television show.
- ❖ Discuss scheduling of the medication with your child's physician, pharmacist or nurse in order to group medicines that can be taken together and decrease the number of times the child's day is interrupted.
- ❖ If allowed or possible, refrigerate liquid medications in order to decrease the smell and taste sensation. Also, taste buds can be dulled by chewing ice or Popsicles before taking medication.
- ❖ Use thick foods to coat the mouth. A small amount of peanut butter or pudding may coat the mouth and decrease the affect of a bad tasting liquid medication. Check with your child's physician to ensure that the food offered can be taken with the medication.
- ❖ Use chasers. A strongly sweet or sour food offered with or after the medication may quickly erase a bad taste in the mouth. Check with your child's physician to ensure that the chaser can be given safely with the medicine.
- ❖ Some medications require that your child drink extra fluid during the day. Offer extra fluids after, rather than before meals in order to ensure a healthy appetite for nutritious foods. Use child friendly cups, sports bottles, or fun shaped straws to encourage more drinking.

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Nutrition Guidance for Positive Children

- ❖ Compatible medicines may be mixed in with a soft food that your child likes (e.g. ice cream, applesauce or chocolate milk). Be careful not to use your child's favorite food or basic important foods, like chicken or eggs. The child might associate the food with medicine and refuse that particular food.
- ❖ For older children, switch to the tablet or capsule form of the medication instead of the liquid form. Younger children may be taught to take pills. Discuss how to do this safely with your child's nurse or physician.
- ❖ Use non-food rewards to encourage medication taking: praise, stickers, etc.

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Nutrition Guidance for Positive Children

Quick Nutrition Screen: Question #20

More information about your YES answers



My child does not show interest in active play

If your child does not seem to have any energy or interest in play, contact your physician. The low energy level may be a sign of illness, medication effect, or depression that needs to be treated. It could be boredom and that needs attention, too.

If no illness, medication effect or depression are found, the following ideas may spark your child's interest in play:

- ❖ Be sure your child is receiving a good diet. Not getting enough calories and key nutrients may cause him or her to feel tired. Offer balanced meals and snacks and keep track of what and how much your child eats for a few days. Ask your Registered Dietitian or other health professional to evaluate your child's diet.
- ❖ Be sure your child is getting enough rest. Not enough sleep may cause your child to lack energy during the day.
- ❖ Substitute social games for television. Invite your child and a friend to go with you on a neighborhood safari. Count the number of different bugs, birds, or leaf shapes you find. Play a board game with your child.
- ❖ Help your child build physical skills. Your child may be self-conscious about his or her lack of skills needed to play certain games well. Play with your child and have fun. Take your child to a neighborhood park where he or she can practice running, throwing, catching, etc. Enlist the help of friends and family members in arranging regular physical activity for your child.
- ❖ If your child shows an interest in team sports or dance, sign him or her up. Speak with the director to find out if the program is supportive of children with varied skill and energy levels.

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Nutrition Guidance for Positive Children

Nutrition Tip Sheet #1

Dental Care

Most young children eat frequently, and regular tooth brushing is needed to keep teeth and gums healthy. Frequent and thorough brushing of teeth keeps bacteria from settling on teeth and gums and causing decay.

Follow these tips for healthy teeth and gums:

- ❖ See the dentist every 6 months for a check-up.
- ❖ Choose a soft toothbrush and have your child brush 3 to 4 times each day.
- ❖ If gums are sensitive, clean the child's teeth with a q-tip or sponge mouth swab.
- ❖ In older children with sore mouth and gums, rinse mouth with a baking soda and warm water mixture. Take care to not swallow this!

Baking soda mixture:

4 ounces warm water
1/2 to 1 teaspoon of baking soda

- ❖ Sticky foods like caramels should be avoided unless the teeth are brushed shortly after sticky foods are consumed.
- ❖ Use a fluoridated toothpaste and drink fluoridated water, or give a fluoride supplement prescribed by your doctor.
- ❖ If your child uses mouthwash, buy one without alcohol.

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Nutrition Guidance for Positive Children

Nutrition Tip Sheet #2

Feeding Your Sick Child

Nausea and Vomiting:

- ❖ Call your doctor to help identify the cause of nausea and vomiting if possible. Treat as suggested.
- ❖ Position the child in a more upright position (raised head of bed, using pillows for propping with older children).
- ❖ During waking hours offer small meals every 2 hours, and fluids every 1-2 hours.
- ❖ Provide simply prepared foods, like plain rice or pasta, potatoes, pretzels, cooked or canned fruit and vegetables, baked chicken or turkey, sherbet, angel food cake.
- ❖ If possible, adjust timing of nausea-causing medications to one-half hour before meals.
- ❖ Try dry plain foods like toast, crackers, dry cereal.
- ❖ Serve liquid after meals, as liquids can increase feeling of fullness; try cool or chilled liquids.
- ❖ AVOID: high fat or greasy foods, or foods with strong flavors or spices.
- ❖ AVOID: feeding the child in a stuffy, over-warm room, or one with strong cooking or food odors.
- ❖ Try giving foods that are cold or room temperature rather than hot foods. For example, a cold turkey sandwich rather than hot turkey with gravy.

Diarrhea:

- ❖ Identify cause of diarrhea if possible and treat as indicated.
- ❖ During waking hours, offer fluids every 1-2 hours - especially diluted fruit juices (half water and half juice), sports drinks, or Pedialyte; drinking liquids is very important to prevent dehydration.
- ❖ If dairy products seem to make diarrhea worse, avoid them until your child is better (*If lactose intolerance is suspected, see **Quick Nutrition Screen Question #9***).
- ❖ If high fat foods seem to make diarrhea worse, offer low fat foods and ask your doctor or Registered Dietitian or other nutrition professional about using a supplement with MCT oil.
- ❖ During waking hours, offer small meals every 2 hours.
- ❖ Try plain rice or pasta, cooked cereal, soft cooked eggs, ripe bananas, canned fruit, plain baked or boiled lean chicken or turkey, white bread or toast.

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Nutrition Guidance for Positive Children

- ❖ Eat foods with sodium and potassium, to replace minerals lost in diarrhea. Examples of sodium and potassium rich foods are: bouillon, broth, bananas, peach and apricot nectar, and potatoes.
- ❖ If your child almost always has diarrhea, try to increase soluble fiber (like fruit and vegetables without skins or seeds, rice, oatmeal, and potatoes).
- ❖ AVOID: greasy, fried, high fat foods, spicy foods, chocolate, caffeine-containing soft drinks.

Fever:

In general, a fever increases the child's fluid and energy needs. To prevent dehydration, getting enough fluid intake is very important.

- ❖ Offer sips of fluid almost hourly each hour your child is awake.
- ❖ Offer diluted fruit juice (half water and half juice) or drinks rather than water.
- ❖ Offer meat or vegetable broth.
- ❖ Use oral rehydration products, such as Pedialyte or Ricelyte, as recommended by your health care provider.
- ❖ Offer soft foods as tolerated.

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Nutrition Guidance for Positive Children

Nutrition Tip Sheet #3

Constipation

Constipation in childhood is not uncommon. It can be caused by not eating enough high fiber foods, not drinking enough liquid, and/or not enough physical activity. It can also be a side effect of medication.

Fluids:

Fluid needs for children will depend upon how much he or she weighs. In general, the fluid needs of children are higher per pound than adults. Their fluid needs per pound of body weight gradually decrease as the child gains more weight.

Weight of child	Needs to drink per day
20 pounds	30 ounces - 3 3/4 cups
25 pounds	35 ounces - 4 1/3 cups
30 pounds	40 ounces - 5 cups
35 pounds	43 ounces - 5 1/3 cups
40 pounds	46 ounces - 5 3/4 cups
45-50 pounds	50 ounces - 6 1/4 cups
51-60 pounds	55 ounces - 6 1/4 cups
61-70 pounds	57 ounces - 7 1/4 cups
71-80 pounds	58 ounces - 7 1/4 cups
81-99 pounds	60 ounces - 7 1/2 cups
100-140 pounds	65-70 ounces - 8 1/4 - 8 3/4 cups



Getting Enough Physical Activity:

See Nutrition Screen Question #20 for ideas to increase your child's daily physical activity level.

If a child is over 120 pounds, the guideline for fluid is the same as in adults - about 1/2 ounce of water per pound of body weight. This may equal 8-10 cups of fluid per day. **Fluid needs are met by drinking enough water, milk, juice, soups, and other liquids each day.**

High Fiber Foods:

For normal bowel "function", a child needs a balance of fiber from fruit and vegetables and whole grains. A general recommendation is to provide 5 servings of fruit and/or vegetables per day, as well as 2-3 servings of foods made from whole grains.

- ❖ Read labels of bread and cereal products for fiber content, look for foods that contain at least 2-3 grams of fiber per serving
- ❖ Use breads made from 100% whole wheat flour
- ❖ Use nuts and seeds in cooking
- ❖ Add wheat or oat bran to baked foods
- ❖ Eat legumes (such as pinto, kidney, garbanzo beans, or peas)

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Nutrition Tip Sheet #4

Snacks & High Calorie Suggestions

Most children cannot meet their nutritional needs in just 3 meals a day. Three meals and 3 snacks (or 6 mini-meals) daily are best to meet the growing child's needs.

Snack ideas for toddlers:

- ❖ Peanut butter on graham crackers, apples or celery
- ❖ Yogurt and fruit
- ❖ Cream cheese on crackers with sliced fruit
- ❖ Frozen juice bars
- ❖ Mini pizza - French bread or English muffin half, topped with tomato sauce and shredded cheese
- ❖ Pudding or custard
- ❖ Cottage cheese and fruit

Snack ideas for school age children:

- ❖ "Smoothies" - blend 1/2 cup fresh or frozen fruit with 1/2 cup ice cream or yogurt
- ❖ Raw vegetables (carrots, broccoli, cauliflower) dipped into ranch dressing
- ❖ Melted cheese on tortilla
- ❖ Trail mix (nuts, seeds, and dried fruit)
- ❖ Popcorn with melted butter, sprinkled with parmesan cheese

High calorie ideas:

- ❖ Offer high calorie (or energy-dense) foods - pudding, custard, whole milk or half and half, macaroni and cheese, dried fruit, cooked cereal made with whole milk
- ❖ Melt butter or margarine onto foods
- ❖ Add sweetened condensed milk or evaporated milk to puddings, milk shakes and baked foods
- ❖ Offer milkshakes made with whole milk, fresh or frozen fruit, ice cream
- ❖ Add "instant breakfast" powder to milk
- ❖ Add powdered milk to puddings, mashed potatoes, soups, and cooked cereals; it can also be added to whole milk (1 Tbsp. has 33 calories and 3 grams protein)
- ❖ Try commercial high calorie drinks like Nutren Junior, Pediasure, Kindercal, Scandishake added to foods, mix with ice cream, make popsicles. Often children prefer these commercial drinks chilled.

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Nutrition Tip Sheet #5

Making Mealtime Less Stressful

Mealtime can be stressful for any family with young children.

For developing good eating attitudes and habits:

- ❖ Sit down at the table and enjoy eating meals and snacks with your child
- ❖ Provide pleasant, safe, eating environment, free from distractions (like TV)
- ❖ Serve meals and snacks at consistent times
- ❖ Plan a quiet time for 10-15 minutes before the meal
- ❖ Include child in food preparation whenever possible; many children enjoy helping!
- ❖ Use child-sized plates, cups, spoons and forks
- ❖ Present foods that are appealing - include a variety of food colors and textures in the meal
- ❖ Develop a regular meal and snack time routine

For managing "the picky eater", the caretaker's role is to:

- ❖ Provide a variety of nutritious food
- ❖ Routinely offer them at regular times
- ❖ Set a good example by eating a variety of nutritious foods yourself
- ❖ Allow the child to choose to eat or not eat foods offered
- ❖ Provide favorite foods for times when appetite is poor
- ❖ Offer very small portions and let your child ask for more
- ❖ Avoid any fights over foods and eating/not eating

It is important to find a balance between setting limits and spoiling your child. Children with HIV are living long healthy lives. Over-indulging them with food is not helpful in the long run as poor eating habits develop early and they are more difficult to correct later.

Special considerations for the toddler:

- ❖ Offer bite-sized foods that are easy for the child to feed him/herself
- ❖ Soft, relatively easy to chew foods
- ❖ Serve meals that contain one of the child's favorite foods along with new foods
- ❖ AVOID: foods which may cause choking - hot dogs, chunks of meat, grapes, nuts, hard candies, popcorn, raw carrots

For all ages:

- ❖ Offer a variety of foods of different textures, tastes, and colors
- ❖ Make sure to include breakfast as part of the daily routine

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Nutrition Guidance for Positive Children

Nutrition Tip Sheet #6

Giving Medications

Special Nutrition-Related Instructions for Available Antiretroviral Drugs:

————— **Nucleoside Analogue Reverse Transcriptase Inhibitors** —————

Didanosine (ddI, Videx):

- ❖ ddI formulation contains buffering agents or antacids.
- ❖ Food decreases absorption; give your child ddI on an empty stomach (1 hour before or 2 hours after a meal). Further evaluation in children regarding administration with meals is under study.
- ❖ For oral solution: shake well and keep refrigerated.
- ❖ When administering chewable tablets, at least two tablets should be administered to ensure adequate buffering capacity (e.g. if the child's dose is 50 mg, administer two 25-mg tablets and not one 50-mg tablet).

Lamivudine (3TC, Epivir):

- ❖ Can be administered with food.
- ❖ For oral solution: store at room temperature.

Stavudine (d4T, Zerit):

- ❖ Can be administered with food.
- ❖ For oral solution: shake well and keep refrigerated.

Zalcitabine (ddC, Hivid):

- ❖ Administer on an empty stomach (1 hour before or 2 hours after a meal).

Zidovudine (AZT, Retrovir):

- ❖ Can be administered with food (although the manufacturer recommends administration 30 minutes before or 1 hour after a meal).

————— **Non-nucleoside Reverse Transcriptase Inhibitors** —————

Delavirdine (DLV, Rescriptor):

- ❖ Can be administered with food.
- ❖ Should be taken 1 hour before or 1 hour after ddI or antacids.
- ❖ Tablets can be dissolved in water and the resulting dispersion taken right away.

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Nevirapine (NVP, Viramune):

- ❖ Can be administered with food.
- ❖ For investigational suspension: Must be shaken well. Store at room temperature.

Protease Inhibitors

Indinavir (Crixivan):

- ❖ Give indinavir on an empty stomach 1 hour before or 2 hours after a meal. It can be taken with a light low fat snack. See approved food list elsewhere in this manual.
- ❖ Adequate hydration required to minimize risk of kidney stones (at least 48 ounces of fluid daily in adult patients).
- ❖ If co-administered with ddI, at least 1 hour apart on an empty stomach.
- ❖ Avoid grapefruit juice. It interferes with the amount of drug that gets into the blood.

Nelfinavir (Viracept):

- ❖ Administer with meal or snack
- ❖ If co-administered with ddI, nelfinavir should be administered 2 hours before or 1 hour after ddI.
- ❖ For oral solution: powder may be mixed with water, milk, pudding, ice cream, or formula (for up to 6 hours).
- ❖ Do not mix with any acidic food or juice because of resulting poor taste.
- ❖ Tablets readily dissolve in water and produce a dispersion that can be mixed with milk or chocolate milk; tablets also can be crushed and administered with pudding.

Ritonavir (Norvir):

- ❖ Administration with food increases absorption.
- ❖ If ritonavir is prescribed with ddI, there should be 2 hours between taking each of the drugs.
- ❖ Tablets should be kept refrigerated and stored in original container; can be kept at room temperature if used within 30 days. In the summer or if you live in warm climates, take care to keep tablets cool and out of the sun and heat.
- ❖ To minimize nausea, therapy should be initiated at a low dose and increased to full dose over 5 days as tolerated.

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❖ The taste of the oral solution can be hard to take. Tips for taking the oral solution:

- A) Mix oral solution with milk, chocolate milk, or vanilla or chocolate pudding or ice cream;
- B) Dull the taste buds before administration by chewing ice, giving Popsicles or spoonfuls of partially frozen orange or grape juice concentrates;
- C) Coat the mouth by giving peanut butter to eat before the dose; or give strong-tasting foods such as maple syrup, cheese, or strong-flavored chewing gum immediately after dose.

Saquinavir (Fortovase):

- ❖ Administer within 2 hours after a full meal to increase absorption.
- ❖ Grapefruit juice increases the amount of saquinavir that gets into the blood.

Amprenavir (APV) (Agenerase):

- ❖ Amprenavir is available in an oral solution and in capsules.
- ❖ Amprenavir should not be used in children less than 4 years of age. The liquid preparation contains propylene glycol, which is not proper for young children. Neither the capsule form nor the oral solution has been approved for use in children less than 4 years of age.
- ❖ Amprenavir can be taken with or without food, but should not be given with a high fat meal. A high fat meal is defined as a meal with 67 grams of fat or more. For example, a Burger King meal of one order of medium sized French fries, a bacon double cheeseburger and a medium vanilla shake contains 69 grams of fat.
- ❖ Children and adults taking antacids or ddI should take amprenavir at least 1 hour before or after antacid or ddI use.
- ❖ Most common side effects of amprenavir are: nausea, abdominal pain, headache, metallic taste, dizziness and asymptotic hyperbilirubinemia (10%)
- ❖ Amprenavir contains a substantial amount of vitamin E.
 - 1 mL oral solution = 46 IU vitamin E
 - 150-mg strength capsule = 109 IU vitamin E
 - Children and adults taking amprenavir should be advised not to take supplemental vitamin E. A regular multiple vitamin-mineral supplement containing 100% of the RDA or DVI for vitamin E is usually okay. Discuss supplements with your doctor.
 - High vitamin E doses may exacerbate the blood coagulation defect of vitamin K deficiency caused by anticoagulant therapy or malabsorption.

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- ❖ Possible vitamin E toxicities include thrombophlebitis, pulmonary embolism, hypertension, severe fatigue, gastrointestinal symptoms, creatinuria with prolonged use, gynecomastia in men and women, breast tumors.

Resources for more information about amprenavir:

- 1) Working Group on Antiretroviral Therapy and Medical Management of HIV-Infected Children. *Guidelines for the Use of Antiretroviral Agents in Pediatric HIV Infection*. Convened by the National Pediatric and Family HIV Resource Center (NPHRC), the Health Resources and Services Administration (HRSA), and the National Institutes of Health (NIH). December 14, 2001. Available at www.hivatis.org.
- 2) GlaxoWellcome, Vertex: Agenerase™ product information, April 1999.

Nutrition Guidance for Positive Children

Nutrition Tip Sheet #7

Avoiding Foodborne Illness

Why is it important to be careful about food sanitation?

Public health and food safety experts estimate that millions of illnesses can be traced to contaminated food. Harmful microorganisms such as bacteria or “germs” are present everywhere, and food is a good place for these germs to live and reproduce. Children, the elderly and people who have compromised immune systems are the most likely to become sick from spoiled food because they cannot fight off the germs. Food poisoning can strike anywhere from two hours to two days after eating. Some toxins in fish can work within minutes, while botulism could take up to a week. Foodborne illness can be minimized or prevented if proper precautions are taken.

Safe Food Handling Tips:

- ❖ Wash hands with soap before, during, and after handling food.
- ❖ Always wash your hands well after going to the bathroom or diapering your baby. Teach children to wash their hands, too.
- ❖ Teach children to wash hands each time they handle food and each time they use the bathroom, too. Make a game of hand washing. For example, each time scrub hands singing a different nursery rhyme.
- ❖ Wash and sanitize all work surfaces, cutting boards, knives, and utensils. Use a dishwasher with water temperature set on high if available.
- ❖ Wash your hands again after touching any raw meat, raw fish, raw chicken, raw turkey, raw pork, or raw eggs. **Never let any raw juices from these foods touch any other food.**
- ❖ Do not serve or eat raw fish like sushi, oysters, or clams.
- ❖ Do not serve or eat raw eggs, and cook all foods made with raw eggs, such as cookie dough, bread, or cake batter before eating. Do not add raw eggs to drinks such as malts or shakes.
- ❖ Freeze foods at 0 degrees Fahrenheit or below. Refrigerate foods at 40 degrees Fahrenheit or below. Buy a freezer/refrigerator thermometer at the supermarket and check it regularly.
- ❖ Thaw or defrost meats, chicken, and turkey in your refrigerator overnight or in a microwave oven. If these foods are thawed or defrosted in the microwave, cook them right away. Never thaw or defrost meats on the counter at room temperature.

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- ❖ Refrigerating and freezing food can slow down growing bacteria but not kill them. Once frozen foods thaw or defrost to room temperature, bacteria can grow again. Bacteria multiply the fastest between the temperatures 40 degrees Fahrenheit and 140 degrees Fahrenheit. Bacteria die at high temperatures when food is well cooked through to the middle.
- ❖ Use a meat thermometer to check the internal (inside) temperature of food.
 - Beef should be cooked to an internal temperature of at least 170 degrees Fahrenheit.
 - Lamb, chicken, and turkey should be cooked to an internal temperature of at least to 180 degrees Fahrenheit.
 - Foods cooked in a microwave may heat unevenly. Be sure to follow the microwave directions, and check internal food temperatures in a variety of areas.
- ❖ Do not allow foods to sit at room temperature for more than 2 hours.
- ❖ Cool leftovers in the refrigerator or freezer. Large batches of cooked food should be divided into small portions in shallow containers then put into the refrigerator or freezer so food can cool faster.
- ❖ Check with your local Environmental Protection Agency or water source agency for information about germs that may be in tap water.
- ❖ Teach children about "unsafe" food and water. Teach them to politely say "no thank you" to when they are offered "unsafe" food or water.

For more information on food and water safety see **References (Section 10)** .

Nutrition Guidance for Positive Children

For the Clinician #1

General Monitoring

A baseline nutritional assessment should be completed as soon after a child is identified as HIV-infected as possible in order to prevent malnutrition and growth failure. Nutritional reassessment by the Registered Dietitian or other nutrition professional should be done at least every 6 months. More frequent evaluation and intervention are warranted when clinical symptoms or growth abnormalities are present. (1)

A complete nutritional assessment includes weight, height, head circumference (to 36 months of age), and body composition assessment. Body composition can be evaluated using skinfold measurements (eg. tricep and subscapular) or bioelectrical impedance. Weight and height growth velocities should be evaluated using the National Center for Health Statistics growth charts and/or the incremental growth charts. Deceleration of the growth velocities indicates the need to evaluate for nutritional intervention. (1)(2)(3)

The biochemical markers that should be a standard component of evaluation are albumin, prealbumin, hemoglobin, hematocrit, cholesterol and triglycerides. If micronutrient deficiencies are suspected, specific serum assays should be assessed. (2)(3)

The child's typical intake should be assessed using 24-hour recall, food record, and/or food frequency questionnaire. Signs of poor intake or excessive losses through diarrhea or vomiting are important to investigate and appropriate nutrition intervention should be incorporated in the overall nutritional care plan.

Refer to Children/Adolescent HIV/AIDS Medical Nutrition Protocol (3) and Nutrition Referral Criteria for Pediatrics (under 18 years) with HIV/AIDS (4), both located in Algorithms (Section 9).

For more information, see **References (Section 11)**.

Nutrition Guidance for Positive Children

For the Clinician #2

Pediatric Enteral and Parenteral Nutrition

All parents want their children to enjoy a wide variety of nutritious foods and experience the special nurturing that takes place around the family table. There are times, however, when children with poor growth on formula or table food diets may require enteral nutrition (tube feedings) or parenteral nutrition (intravenous feedings). During these times every effort must be made to make these alternative feeding methods safe and effective while maintaining the child's positive relationship to food and the home feeding environment.

Enteral Nutrition

The prevention of malnutrition or wasting syndrome in children with HIV disease is a major concern. Children who fail to grow adequately on calorie-enhanced oral diets, who have difficulty eating or who have difficulty absorbing and using nutrients may benefit from using enteral nutrition or tube feedings. Common problems specific to HIV disease which may require the use of tube feedings include growth failure, painful swallowing, infection, chronic diarrhea, vomiting or excessive spitting up, loss of appetite due to fever or chronic disease, brain damage, and stomach or intestinal problems. (Winter and Chang, 1996) Depression in children with HIV disease may be an under-recognized contributor to loss of appetite and poor growth. (Deatrick, et al., 1998)

Tube feedings may provide a child's complete diet or they may be used as a supplement to a regular diet. The mildly malnourished child who is able to eat and absorb nutrients should not be tube fed unless major efforts to increase the nutritional content of formula or table foods have failed. Tube feedings may not be advised if the child is very malnourished or has severe vomiting or diarrhea. In these situations, intravenous nutrition or parenteral nutrition may be required. Often, however, it is possible to combine some amount of enteral nutrition with intravenous nutrition.

When short-term use of the feeding tube is expected, placing the feeding tube into the nose is preferred. Long term use of nasal feeding tubes is not recommended because it may cause infection of nasal sinuses (Winter and Chang, 1996), and the child's changed appearance during nasal tube feedings may be a source of added distress for the child and family. Feeding tubes placed directly into the stomach or small intestine are more discrete and can easily be "hidden"

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under a child's regular clothing. These tubes, called gastrostomy tubes or jejunostomy tubes, are commonly used in children who will need to receive tube feedings for an extended period of time. The physician places the PEG (percutaneous endoscopically placed gastrostomy tube) in a rather simple procedure.

Feeding schedules, amounts and rates for enteral feeds are based upon a careful assessment of the child's overall health, with particular attention to the child's ability to tolerate the feeding. Tube feedings may be either continuous or intermittent. Continuous feedings are given at slow rates over many hours. In bolus feedings a larger volume of liquid nutrition is given intermittently but over a short time. When first starting to tube feed a child the continuous method is better tolerated. Once the child has shown good toleration of continuous feeds at the full volume needed, a change may be made to intermittent or bolus feedings. Bolus feedings allow the child to have greater freedom of movement and independence since the feeding pump can be disconnected when not in use.

There are many factors to consider when selecting a tube feeding nutritional product. It is important to consider the child's developmental status, nutritional status and overall health when selecting a nutritional product. (Lingard, 1993) If there is a history of food allergy or intolerance select a product which does not contain the offending agent. Additional product characteristics to be considered include nutrient composition, (type of carbohydrate, protein, fat, vitamins and minerals), nutrient density (number of calories, protein, etc. per volume) and osmolarity (the number of particles per volume). Products with a high osmolarity may cause diarrhea in some children and are seldom used when initiating tube feedings.

Health care professionals and families need to monitor tube feedings for toleration and trouble shooting problems once enteral feedings have been initiated. The prevention of dehydration is quite important.

Children can be fed safely and effectively by tube if proper attention is paid to the prevention of complications. Complications may include mechanical, infectious, nutritional, metabolic, gastrointestinal, and developmental problems. Reference sources are available to assist health care professionals and families with troubleshooting enteral feeding problems. (Lingard, 1993) In order to avoid contamination, it is important that caretakers use safe preparation techniques. These techniques include hand washing before initiating tube feedings, washing the top of the enteral product can before opening, using a clean punch-type can opener if a self-opener is not provided, cleaning feeding bags with

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warm, soapy water between usage and limiting formula hangs to 8 hours.

Planning for home enteral support should include adequate training for parents, back-up caretakers and, as developmentally appropriate, the child. All caretakers must be given hands-on training in using all equipment, show skill in managing tube feedings, and receive support to express concerns and misgivings. All supplies must be delivered to the home prior to hospital discharge. Caretakers must also receive instruction on handling emergencies and be given telephone numbers for key personnel.

Children and parents may have difficulty expressing their fears about tube feedings. A supportive environment should be created which encourages all family members to express their feelings and concerns. The nutrition plan should address all family concerns.

Parenteral Nutrition (PPN/TPN)

Parenteral nutrition is an accepted method for providing the nutrients children need to grow and thrive. Parenteral or intravenous nutrition is used when a child can not safely or adequately take in foods by mouth or tube feedings. Severe failure to thrive or weight loss greater than 10% is a general reason for the use of parenteral nutrition. (Cox, 1993) Other reasons for using parenteral nutrition in children with HIV-related conditions include: wasting syndrome, acute or chronic intractable diarrhea, inflammatory bowel disorders, severe brain disorders, heart muscle loss, liver failure and infection. Peripheral parenteral nutrition (PPN) involves the use of a peripheral vein and may be used when short-term (less than 5 days) nutritional therapy is anticipated.(Cox, 1993) Total peripheral nutrition (TPN) with a centrally placed catheter may be used when longer term intravenous nutritional care is expected. Although placing a central venous catheter in a child who is severely immunocompromised has some risks, children with HIV disease have safely received long term home and hospital based TPN.

The TPN mixture is designed to provide adequate amounts of calories (as carbohydrates, protein and fat), protein, fat, vitamins, minerals, trace elements, electrolytes and fluid for the child's growth. Close monitoring of growth, fluid status, blood sugar, electrolytes, and other laboratory values are required. Guidelines for monitoring pediatric parenteral nutrition and handling metabolic complications are available. (Cox, 1993)

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Once the TPN regimen is stable and well tolerated, it is advisable to attempt cycling the TPN off for as many hours as possible, preferably during the day. Cycling allows the child to be free of the pump and related devices for part of the day. During the free hours the child is more able to play and participate in regular child activities.

As soon and as much as possible, the child should be allowed to eat or re-start tube feeds. Infants and young children on prolonged TPN often lose interest in eating and lose feeding skills. (McCoy, 1991) If the child cannot eat, an occupational or speech therapist should be enlisted to create with the child and family a program to stimulate oral motor development.

As in enteral feedings, children and their families are often distressed by changes in body image and freedom of movement associated with parenteral nutrition. Care should be taken to address these concerns. Clothing can be selected to disguise the feeding tubes. Portable feeding pumps and backpacks can be obtained. Feeding schedules can be re-arranged to meet the child or the family's lifestyle. Sometimes arranging a meeting between families considering TPN and families currently using TPN can provide mutually helpful peer support.

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For the Clinician #3

Guidlines for Children's Continuous Drip Tube Feedings:

- ❖ Begin at a rate of 1-2 ml/kg/hour.
- ❖ Advance in increments of 0.5-1 ml/kg/hr every 8-24 hours as tolerated, until nutritional goal is achieved.
- ❖ Typical feeding rates for various age groups (Lingard, 1993):

Age	Weight (kilogram & pounds)	Initial Rate (ml/hour)	Maximum Rate (ml/hour)
Infant	3-10 kg 6.6-22 lbs.	3-10	25-50
Toddler / Preschool	10-20 22-44 lbs.	10-20	60-70
School Age	20-40 44-88 lbs.	20-40	80-100
Teenage	Above 40 Above 88 lbs.	40-50	100-150

Signs and Symptoms of Dehydration in Children:

- ❖ Weight loss that is greater than 1% per day
- ❖ Increased thirst
- ❖ Dry oral membranes
- ❖ Increased urine specific gravity (more than 1.030)
- ❖ Decreased urine output (less than 1-2 mL/kg/hour)
- ❖ Increased Hct, serum Na, and BUN
- ❖ Fever
- ❖ Depressed anterior fontanel (scalp) in an infant
- ❖ Irritability

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Suggested Monitoring during Enteral Nutrition Support for Children:

I. Growth

Parameter	Initial Week	If in the Hospital	At the Outpatient Clinic
A. Calories, protein vitamins, minerals	Daily	Weekly	Monthly
B. Weight for age	Daily	Daily	Monthly
C. Height for age	Initially	Weekly	Monthly
D. Weight for height	Initially	Weekly	Monthly
E. Head circumference (until age 3)	Initially	Weekly	Monthly
F. Triceps skinfold	Initially	2-4 weeks	1-3 months
G. Midarm muscle circumference	Initially	2-4 weeks	1-3 months

II. Gastrointestinal

Parameter	Initial Week	In Hospital	At Home
A. Abdominal girth	At least daily and as needed	As needed	As needed
B. Gastric residuals	2 hourly	8 hourly	As needed
C. Vomiting	Daily	Daily	Daily
D. Stools:			
Frequency/consistency	Daily	Daily	As needed
Reducing substances	Initially	As needed	As needed
Ova/parasites	As needed	As needed	As needed

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III. Mechanical

Parameter	Initial Week	In Hospital	At Home
A. Tube position	Initially	8 hourly	8 hourly
B. Nose Care	8 hourly	8 hourly	8 hourly
C. Gastrostomy / jejunostomy site care	As needed	As needed	As needed

IV. Metabolic

Parameter	Initial Week	In Hospital	At Home
A. Electrolytes	Daily until stable	Weekly	Monthly if stable
B. Glucose	Daily until stable	Weekly	Monthly if stable
C. BUN / creatinine	Initially	Weekly	Monthly if stable
D. Visceral proteins	Initially	2-4 weeks	Monthly if stable
E. Alk phos., trig., chol.	Initially	As needed	1-3 months
F. Minerals (Ca, P, Mg)	Initially and daily	Weekly	Monthly if stable
G. Vitamins, trace elements	As needed	As needed	As needed to yearly
H. Hgb, Hct, MCV	Initially	PRN	1-3 months
I. Fe, TIBC, retic. count	Initially	PRN	1-3 months
J. Fluid intake/output	Daily	Daily	Daily
K. Urine specific gravity	Daily	Weekly	As needed

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For the Clinician #4

Complimentary Therapies: Vitamin/Mineral Supplementation and Herbal Remedy Usage with Children

The use of alternative or complementary medicine is increasing among the general United States population. Complementary nutritional therapies may include nutritional practices that enhance or substitute for foods taken by mouth. Some of these practices are proven to be safe and effective under proper supervision and are part of traditional standards of care. Non-standard nutritional practices are poorly documented in medical literature, may or may not be safe and are not proven to be effective. Two unproved and potentially unsafe practices are vitamin and mineral megadosing and use of herbal remedies. Although several studies have looked at complementary nutritional therapy usage among adult men and women living with HIV disease, (Vogl D, et al., 1998; Johnston et al., 1998) no published studies have looked at parent's use of complementary therapies with their children.

Vitamin/Mineral Supplementation

Megadosing or taking more than 200% of the Recommended Dietary Allowances for vitamins and minerals, unless prescribed and monitored by a physician, may be harmful to the child and is not recommended. Limited research has been done on vitamin and mineral insufficiencies in children with HIV disease. One study found that few HIV positive children had deficiencies in vitamins and minerals. (Henderson, 1997) Chronic diarrhea, a common problem in children with HIV disease, has been found to lead to lower levels of magnesium and zinc in infants. (Castillo-Duran et al, 1988; Rothbaum, 1982) Several nutrients play key roles in immune function, including vitamin A, vitamin E, B-6, B-12, folate, selenium and zinc. (Liang et al., 1996)

Increased intake of the antioxidants beta-carotene, vitamin E and vitamin C may also be helpful. (Mastroiacoro, et al., 1996) Studies of adults with HIV disease have shown decreased serum levels of many of these same nutrients. (Baum, 1997) Decreased iron stores are associated with certain anti-viral medications.

For children living with HIV disease, practitioners routinely recommend a daily single dose supplement that provides 100% of the RDA for vitamins with additional iron and zinc. Close monitoring of the child's iron status should be

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done by health care providers to determine the need for additional iron supplementation. Blood tests to measure vitamin stores should be done on an as needed basis.

Some parents give their children vitamin and mineral enhanced tonics in an effort to promote growth and improve immune function. While some of these tonics may be harmless, others are not designed for children and may contain harmful solvents (e.g. alcohol) or toxic doses of vitamins. Parents are advised not to give tonics to children unless approved by their pediatrician.

Glutamine is an amino acid found in abundance in the body. It has many uses including energy, protein metabolism, and helping the body get rid of excess ammonia. Glutamine supplementation has been suggested to be helpful in preserving muscles in stressed patients, improving the body's immune system, and helping the intestines work properly. (Vanderhulst, et al., 1993; Hammarquist et al., 1989, Shabert and Wilmore, 1996) Glutamine has been used by both adult and pediatric patients with chronic diarrhea. No published guidelines exist for routine glutamine supplementation in children with HIV disease.

Herbal Remedies and Children

Herbal remedies are one form of complementary medicine. The use of herbs for medicinal purposes is commonplace among many social, ethnic and nationality groups. Food seasonings, such as ginger and garlic, may also be consumed for health purposes. When used in the amounts typically required to season foods, these herbs are regarded as safe for children as well as adults. Recent immigrants often have considerable experience using herbal remedies that are viewed as outside of mainstream medicine in the United States. No data exist on the use of herbal remedies in the pediatric HIV population.

It is important for parents and medical providers to maintain open communication regarding the use of herbal remedies. Little is known about the safety and effectiveness of most herbal remedies. Some of them seem to enhance or prevent the body's use of other medications. Herbs that increase the potency of other medicines may cause severe illness. Herbs that interfere with the body's absorption of anti-viral medicines may allow the HIV virus to multiply.

Keep learning all you can about good nutrition and health. After all it is your life...enjoy every minute of it.

Nutrition Guidance for Positive Children

One popular herb, Echinacea, has been shown to increase viral replication. Another popular herb, St. John's Wort, has been shown to reduce drug levels of the protease inhibitor, indinavir. Because of how St. John's Wort is metabolized, the FDA has recommended that it not be used with any protease inhibitor or non-nucleoside reverse transcriptase inhibitor.

A cause of concern with the use of herbs is our lack of information on the concentration of active ingredients in these products. Also, there is no agreement on appropriate dosages for children or adults. Children are at high risk because their bodies are small and their livers are not fully developed. Malnourished children are at even higher risk when exposed to harmful products. Families considering use of any complementary or herbal remedy for their child are encouraged to first discuss their plans with their medical provider.

For more information see **References (Section 11)**.

Assessment Formulas

NUTRITIONAL ASSESSMENT FORMULAS

A complete nutritional assessment should ideally include not only a diet history, but several measurements which will provide a more sensitive and accurate assessment of a client's nutritional status. In addition, these measurements are useful indicators of changes in nutritional status.

BODY SIZE

Weight

A measurement of total body weight is often the only measurement available to determine changes. Weight measurements should be done routinely **at each and every visit and be recorded**. In order to ensure accuracy, the same scale should be used and calibrated regularly.

Weight graphing provides an excellent visual assessment and may provide clinical indications of changing health status.

To convert weight in pounds to kilograms: Divide the weight in pounds by 2.2.

To convert kilograms to pounds: Multiply the number of kilograms by 2.2.

Ideal Body Weight (IBW)

This measurement is useful for comparing a person's current (actual) weight against a recommended weight based on height. The Metropolitan Life Insurance Tables (1983) are the most recent tables available.

IBW can also be calculated:

Male: 106 pounds + 6 X number of inches over 5 feet tall

Female: 100 pounds + 5 X number of inches over 5 feet tall

In addition, a 10% plus/minus provision is also included to allow for variations in frame size providing a weight range for good health. Typically, when an individual is below their IBW range fatigue, poor energy, and nutritional risk is obviously increased.

Caution should be used in relying on IBW standards as a basis for determination of nutritional status since these standards have been developed using a healthy adult population.

Assessment Formulas

Adjusted Body Weight

When someone is obese, that is, their body mass index (BMI) is over 30, instead of using the person's current actual body weight to calculate caloric needs, use adjusted body weight. (For BMI formula, see Page 7-6).

Adjusted body weight is calculated by using the following equation:

Actual Body Weight - Ideal Body Weight x .25 + Ideal Body Weight

Reference Body Weight (RBW)

RBW may be used instead of ideal body weight. RBW is the midpoint of the healthy weight range in the 1995 Dietary Guidelines for Americans. Within the healthy range RBW can be adjusted upward for more highly muscled and downward for less muscled individuals.

Usual Body Weight (UBW)

This is the weight the client usually remembers. The client should be asked what they weighed most of their **adult** life. This is a crucial piece of information to obtain since most people have never weighed within their IBW range. In addition, weights for 6 months ago and 1 year ago should also be asked and recorded.

Expectations for weight management should be appropriately defined based on this information.

Height

The actual height of the client should always be measured at the first visit. Clients often report inaccurate heights which will affect determinations of IBW and potentially assessment of overall nutritional status.

Balance beam scales usually have a height measuring device. Another option is to use a measuring tape placed on the wall.

To convert inches to centimeters: Multiply inches by 2.54.

Instructions for Obtaining Height

Height should be measured without shoes. With the client's back against the wall or measuring board, ask him or her to stand erect and to look ahead. The outer corner of the eye and top of the ear should be in line parallel to the floor. Heels, scapula, and buttocks should touch the wall.

A right-angle headboard should be lowered to rest flat at the crown of the client's head. Height should be read to the nearest inch or .5 cm.

Assessment Formulas

BODY COMPOSITION

It has been widely agreed that the ability to maintain lean body mass, or muscle tissue can and will influence the overall health of an individual infected with HIV. There is a strong correlation between loss of muscle mass and serious illness. It is therefore important to monitor changes in body composition that influence nutritional status.

Triceps, Skinfold and Mid-upper Arm Circumference

Triceps skinfold (TSF) thickness measures the amount of subcutaneous body fat. Approximately 50% of total body fat is subcutaneous. TSF is one of the skinfold sites found to be most reflective of body fatness. Changes in TSF are estimated to take 3-4 weeks. Formulas using mid-upper arm circumference (MAC) and TSF provide indirect assessment of the arm muscle area and arm fat area.

Instructions for measuring triceps skinfold:

- ❖ Do not take skinfold measurements after the person has exercised, swam, or showered since skinfold thickness will be increased due to increased blood flow to the skin.
- ❖ The caliper needle should be on zero before starting the procedure.
- ❖ The point at which the skinfold measurement is taken is the same point used for mid-arm circumference. This point is halfway between the acromion process of the scapula and the tip of the elbow. Mark this point with a felt pen or adhesive label.
- ❖ Always take skinfold measurements (not only triceps skinfold) on the right side of the body.
- ❖ The person should be sitting or standing with arms relaxed, hanging at their side.
- ❖ At the marked site on the triceps, grasp a vertical fold of the skin and underlying fat between the thumb and index finger, 1 cm above the midpoint. The skinfold should be parallel to the length of the arm. Both the thumb and the index finger should be 8 centimeters apart from the midpoint mark. Place the caliper just below the thumb and index finger.
- ❖ The hand grasping the skinfold should hold the fold while the caliper is being used to measure.
- ❖ Take the measurement 2 seconds after full pressure of the caliper is applied. Three measurements should be taken and the average value used.
- ❖ Always open the caliper prior to removing from the skinfold.
- ❖ Do not use plastic calipers. They lack adequate tension.

For resources and more information on technique, calculations, interpretation and equipment, see **References (Section 10)**.

Assessment Formulas

Use and Interpretation of Skinfold Measurements

Indirect methods of measuring subcutaneous fat, total body fat and somatic proteins (skeletal protein mass) include skin fold measurements. Special equipment required includes a skinfold caliper.

Good clinical skill and judgment is a critical element in obtaining and interpreting skinfold data. The thickness of skinfolds gives an estimation of subcutaneous fat and stored energy. The most common skinfold site is over the triceps muscle. This measurement is taken with calipers on the right arm midway between the olecranon process and the acromial process (midway between the shoulder and the elbow). The most common approach to interpreting Tricep Skinfold (TSF) results are to compare them to percentile values for age and gender. In general, patients are considered to be malnourished if the TSF is at the 5th percentile or below, and to be at risk if the TSF is between the 5th and 15th percentiles.

Depletion can be a reflection of poor oral intake or nutrient deprivation. Serial measurements are useful in evaluating changes in subcutaneous fat or somatic protein mass in patients whose weight remains normal.

A major drawback to these measurements is that they are chiefly used to detect overweight; percentile tables have been established based on healthy populations. In addition, the measurements are relatively imprecise unless the same person does the measurements each time and has good technique.

Estimation of Somatic Protein Stores

Midarm muscle circumference (MAMC) and midarm muscle area (MAMA) may be calculated from TSF and mid-arm circumference (MAC) using the following equations:

$$\text{MAMC(cm)} = \text{MAC(cm)} - 0.314 \times \text{TSF(mm)}$$

$$\text{MAMA(mm}^2\text{)} = \frac{(\text{MAC(cm)} - 3.14 \text{ TSF(mm)})^2}{4 \times 3.14}$$

**where MAC and TSF are in mm.*

The results provide an indication of muscle mass. Reference standards for age and gender are commonly available.

Assessment Formulas

Bioelectrical Impedance Analysis (BIA)

The three-compartment model of body composition allows for monitoring shifts in fluids and muscle. In this model the body is divided into three parts:

- 1. Body Cell Mass (BCM):** The most metabolically active tissue compartment made up of highly functional protein stores e.g. muscle, organs and circulating cells.
- 2. Extracellular Tissue (ECT):** Bone, plasma, collagen
- 3. Fat Mass:** Fat stores

- ❖ When BCM is increased or decreased the changes are mostly attributed to muscle tissue changes.
- ❖ When ECT is increased or decreased it may be due to fluid shifts.
- ❖ Note BIA parameters at initial assessment and monitor changes over time to give you a more accurate estimation of the individual's muscle and fat mass. See sample BIA Screening Flow Sheet, (Page 8.7).
- ❖ Note and review BIA results on a special form for the client. See BIA Results form, (Page 7-7).

Evaluation of Body Cell Mass (BCM) using BIA

- ❖ Ideal body cell mass (IBCM) is estimated by multiplying an individual's ideal body weight by one of the following factors:
 - 0.42 for adult males
 - 0.32 for adult females
- ❖ Comparing the individual's current BCM to the IBCM (CBCM/IBCM) is helpful in evaluation and developing nutrition goals and appropriate interventions.
- ❖ It is generally accepted that more than one BIA test is necessary to establish a baseline, identify a trend in body composition, and provide the basis for starting or changing therapy.
- ❖ BIA is not sensitive enough alone to identify body shape changes seen in "lipedystrophy syndrome". Waist-hip and mid-arm circumference measurements are more useful.

BIA Equipment

- ❖ BIA machines are available in single or multiple frequencies. Prices range from \$600 to \$2000 for single frequency machines, and start at \$5000 for multiple frequency devices.
- ❖ Some are programmed to just read out raw data or direct measurements of impedance, resistance, reactance, and phase angle, and make available software enabling users to input their own equations.
- ❖ Some devices use proprietary equations for calculating fat, body cell mass and other components and are less flexible in the user's ability to manipulate equations

Assessment Formulas

and software applications.

For more information and links about BIA and equipment, see References (Section 10).

Body Mass Index (BMI)

BMI is an estimation of fat versus lean in body composition. It has been demonstrated to have a relatively high correlation with estimates of body fatness. BMI assesses a person's weight status as simply being underweight, average weight or overweight based on height.

$$\text{BMI} = \frac{\text{Weight (kg)}}{\text{Height (meters}^2\text{)}} \quad \text{or} \quad \frac{\text{weight (pounds)} \times 703}{\text{height (inches)} \times \text{height (inches)}}$$

BMI is not a sensitive measurement for HIV. It can be a general marker for changes and should be included in assessments.

Assessment Formulas

BIA Screening Flow Sheet

Name _____ Age ____ Gender _____

Height _____ Usual Weight _____ Desirable Weight _____

Ideal Body Weight _____ Ideal Body Cell Mass _____

Date						
Wt. (lbs.)						
% UBW						
% DBW						
BMI						
BCM						
% IBCM						
Fat (lbs.)						
Total Fluid						
Note						

Clinician's Signature _____ Date _____

Assessment Formulas

BIA Results

Date _____ Name _____

Age _____ Gender _____

Height _____ Weight _____ BMI* _____ IBW** _____

Reactance _____ Resistance _____

	Weight in lbs.	% IBW
Usual Body Weight (UBW)		
Desirable Body Weight (DBW)		
Body Cell Mass (BCM) (reflects changes in muscle)		
Fat		

Fluid Status: Dehydrated Acceptable Edema

Assessment:

- Current body composition appears normal
- Requires further nutritional assessment/follow-up
- Recommend nutrition referral
- Recommend follow-up BIA _____ (date)

*BMI, body mass index, is measured by dividing current weight (kg) by height (meters) squared:

Weight/Height²

- 20-25 = Healthy weight**
- Under 20 = Underweight**
- 25-30 = Overweight**
- Over 30 = Obese**

Clinician's Signature _____ Date _____

Assessment Formulas

ESTIMATION OF ENERGY REQUIREMENTS

Estimating energy requirements usually involves the use of mathematical formulas which are used to estimate energy needs at rest, called Basal Energy Expenditure (BEE). The most common formula used is the Harris-Benedict formula. Factors which consider levels of activity and stress such as illness or trauma are added to the BEE to estimate total calorie needs. The following are commonly used formulas for estimating energy requirements.

BEE represents the amount of energy expended when the body is at complete rest. BEE varies with age, gender and body size.

Men: $BEE = 66.47 + (13.75 \times W) + (5 \times H) - (6.76 \times A)$

Women: $BEE = 65.51 + (9.56 \times W) + (1.85 \times H) - (4.68 \times A)$

$W = \text{Weight in kg}$ $A = \text{Age in years}$ $H = \text{Height in cm}$

Activity Factor: 1.3 Normal

1.2 If confined to bed

Stress Factors: 1.2 Maintenance - Well, feeling good

1.5 Sick - Fever, not doing well

1.75 Very Sick - Major illness with multiple Opportunistic Infections (OI)

Nonprotein Calorie Requirements = BEE X Activity Factor X Stress Factor

Recommendations for the estimation of calorie needs for people living with HIV must be individualized. The Harris Benedict Equation underestimates the energy needs of adults living with HIV by approximately 13%. Clinicians can consider adding a 1.13 stress factor when using this equation to estimate energy requirements for individuals with HIV infection.

In general, calculate a minimum daily intake of 16 calories for each pound of baseline weight before infection or wasting for men and 13-14 calories for each pound of weight in women.

Estimating Protein Requirements

Protein requirements may increase to 1-1.5 grams/kilogram/body weight. To maintain body protein stores, higher levels than normal (0.8 grams/kilogram body weight) may be required. (1 kilogram = 2.2 pounds).

HIV Medications and Nutritional Complications

Nutritional Side Effects of Selected Medications

The purpose for taking potent combination antiretroviral drugs is to suppress HIV replication, keeping viral load as low as possible for as long as possible. These drugs have been able to keep people healthier than before. The more you understand how to take your medications and how to control any potential side effects, the easier it will be to take your medications and the better they will work for you. Find the medications that you are taking on the HIV Medications and Nutritional Complications chart and become aware of their possible side effects and any dietary considerations you must take.

The protease inhibitor indinavir (Crixivan[®]) is one medication that has special dietary instructions. It must be taken on an empty stomach or with very little every 8 hours. For ideas of what to take with this medication, see "Additional Food List" for Crixivan[®] (indinavir sulfate) chart at the end of this chapter.

Daily Routine Chart for Medications and Meals

What you eat and drink with your medications, and when, do make a difference. It can make the difference whether you achieve consistently good blood levels of your medications or whether you don't and increase your risk of developing a resistance to your medication. Setting up a daily food and medication schedule to follow, as closely as you can seven days a week, will help a lot. Copy and use the Daily Routine Chart in this section to plan when to take all your medications and meals. Copy and use the next page on its back to note any concerns you have and share them with your health care team. Carry this form with you for easy reference.

HIV Medications and Nutritional Complications

HIV Medications and Nutritional Complications

x = Possible
 Rx = Prescription
 OTC = Over-the-counter

A = Appetite Loss
 D = Diarrhea
 C = Constipation

N = Nausea
 V = Vomiting

Ft = Fatigue
 H = Headache

Others = More concerns
 - = Contraindication

Medication	Without Food											Other Considerations				
	Rx	OTC	A	D	C	N	V	Ft	H	Others	-					
STEROIDS (INCLUDING ANABOLICS) + OTHER MEDS USED FOR WASTING																
Dexamethasone (Decadron®)	x															Anabolics in general: • Skin problems, e.g. acne • Hair growth (hirsutism) • Menstrual irregularities • Change in libido and potency (altered desire for sex, ability to have erection and ejaculation) • Fluid retention • Abnormal liver enzymes/hepatitis (jaundice) • Altered blood glucose, even diabetes
Testosterone Injections: Testosterone cypionate, testosterone enanthate; (Depo-testosterone®); Patches: Testoderm®, Androderm®	x					x										Stomach upset/ulcers, indigestion, weight gain, increased urination, depression. Mood changes; increase in hemoglobin/hematocrit (red blood cell count=RBC)
Nandrolone (Deca-Durabolin®)	x															Sore tongue, chills
Oxandrolone (Oxandrin®)	x															Sore tongue.
Oxymetholone (Anadrol®)	x															Masculinization, alterations in cholesterol
Pentoxifylline (Trental®)																GI (NVD); headache ¹¹
Recombinant human growth hormone (Serostim®)	x															Musculoskeletal discomfort of hands and feet; increased blood sugar, triglycerides
Thalidomide (Thalomid®)	x															Drowsiness, rash, dry mouth, edema, acne, insomnia, sedation.

HIV Medications and Nutritional Complications

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 Ft = Fatigue
 H = Headache
 6 = Contraindication
 Others = More concerns

Medication	Without Food											Other Considerations
	Rx	OTC	A	D	C	N	V	Ft	H	6	Others	
ANTIRETROVIRALS												
Nucleoside Analogue Reverse Transcriptase Inhibitors (NRTIs)												
AZT = zidovudine (Retrovir®)	X					X	X	X				Nausea; headache; dysphoria; bone marrow suppression (anemia, neutropenia); rash. ¹²
ddI = didanosine (Videx®)	X					X	X	X				Peripheral neuropathy; pancreatitis; avoid antacids containing magnesium or aluminum; GI (NVD); abnormal liver function tests ¹²
ddC = zalcitabine (Hivid®)	X					X	X	X				Peripheral neuropathy; oral & esophageal ulcers; pancreatitis ¹²
ddT = stavudine (Zerit®)	X					X	X	X				Peripheral neuropathy; CNS changes (agitation, dysphoria); pancreatitis ¹²
3TC = lamivudine (Epivir®)	X					X	X	X				Nausea; malaise ¹¹
AZT + 3TC (Combivir®)	X					X	X	X				See individual drugs above
Abacavir (Ziagen®)	X					X	X	X				Rash (may be part of hypersensitivity reaction—DO NOT RECHALLENGE!); GI (NVD); headache, fatigue ¹²
Non-Nucleoside Analogue Reverse Transcriptase Inhibitors (NNRTIs)												
Delavirdine (Rescriptor®)	X					X	X	X				Rash; headache; nausea ¹
Nevirapine (Viramune®)	X					X	X	X				Rash; headache; nausea ¹
Efavirenz (Sustiva®)	X					X	X	X				Rash; CNS changes (vivid dreams, dizziness, euphoria, dysphoria, hallucinations) ¹²
Nucleoside Analogue Reverse Transcriptase Inhibitors												
Adefovir dipivoxil = Bis-POM-PMEA (Preveon®)	X					X	X	X				Available through expanded access only; found non-approvable by FDA. Kidney damage (proximal renal tubular dysfunction = PRTD), decreases carnitine levels. ¹²

HIV Medications and Nutritional Complications

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 ⚡ = Contraindication
 Others = More concerns

Medication	Without Food											Other Considerations	
	Rx	OTC	A	D	C	N	V	Ft	H	⚡	Others		
Protease Inhibitors (PIs)													Because of potential toxicity due to the large amount of the excipient propylene glycol, AGENERASE Oral Solution is contraindicated in infants and children below the age of 4 years, pregnant women, patients with hepatic or renal failure, and patients treated with disulfiram or metronidazole PIs in general. ¹² <ul style="list-style-type: none"> Lipodystrophy syndrome: fat redistribution (increased fat in waist, neck, breasts; decrease in extremities, buttocks, face); elevated cholesterol or triglycerides, elevated glucose (or frank diabetes mellitus) Abnormal liver function tests (increased enzymes: SGOT=ALT; SGPT=AST; alkaline phosphatase, bilirubin, GGT) Hair and nail changes
Amprenavir (Agenerase®)	x					x		x					Rash; GI (NVD); fatigue; tingling around the mouth. Each 150 mg capsule contains 109 IU vitamin E, each mL solution contains 46 IU. High doses of vitamin E may exacerbate blood coagulation defect of vitamin K deficiency caused by anticoagulation therapy or malabsorption.
Indinavir (Crixivan®)	x		x			x		x					Kidney stones; abdominal, back or flank pain; elevated serum bilirubin (jaundice); GI upset

HIV Medications and Nutritional Complications

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Medication	Rx OTC A D C N V Ft H											Without Food	Other Considerations	
	With Food													
Nelfinavir (Viracept®)	x		x		x	x		x					Avoid acidic food or liquid Do not take St John's Wort	Diarrhea; rash
Ritonavir (Norvir®)	x		x		x	x		x					Do not take St John's Wort	GI (NVD); numbness around mouth (circumoral paresthesia)
Saquinavir mesylate (Invirase®)	x		x		x								Avoid alcohol Do not take St John's Wort	GI (NVD)
Saquinavir (Fortovase®)	x		x		x	x		x					Avoid alcohol Do not take St John's Wort	As above
OTHER MEDICATIONS USED TO Rx HIV														
Hydroxyurea (Hydrea®)	x		x		x	x							Caution with renal impairment & geriatrics.	BM suppression
OTHER ANTIVIRALS														
Acyclovir (Zovirax®)	x		x		x	x		x						Ensure hydration
Cidofovir (Vistide®)	x		x		x	x		x			After meal			Kidney toxicity; neutropenia; fever ¹
Famciclovir (Famvir®)	x		x		x	x		x						Electrolyte disturbances; kidney problems; seizures ¹²
Foscarnet (Foscavir®)	x		x		x	x		x					Kidney disease	Neutropenia (decreased WBC)
Ganciclovir (Cytovene®)	x		x		x	x		x			Take with food			At high doses (800mg/day) may reduce levels of neutrophils and white blood cells.
Valacyclovir (Valtrex®)	x		x		x	x		x					Should not be taken by people who are allergic to acyclovir.	
ANTIBIOTICS /														

HIV Medications and Nutritional Complications

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Medication	Without Food											Other Considerations
	Rx	OTC	A	D	C	N	V	Ft	H	*	Others	
ANTIPROTOZOALS												
Albendazole (Albenza®)	x					x	x					Abnormal liver function tests, abdominal pain, BM suppression ¹
Ampicillin (Omnipen®), Unasyn®			x			x	x		Take on empty stomach, ½ hour before or 2 hours after eating			Rash; heartburn; urinary tract infection in women
Amoxicillin			x			x	x					
Amoxicillin + clavulanic acid (Augmentin®)												
Atovaquone (Mepron®)	x		x			x	x		Take with food			Taste change; dyspepsia; abdominal pain; fever; insomnia; hypotension. ¹⁰
Azithromycin (Zithromax®)	x		x			x	x		Take on empty stomach one hour before or after eating. Avoid magnesium or aluminum containing antacids			Diarrhea; abdominal pain
Cephalexin (Keflex®)	x						x					
Ciprofloxacin (Cipro®)			x			x	x		Take on empty stomach			Rash; oral candidiasis; sore mouth/tongue
Clarithromycin (Biaxin®)	x		x			x	x					GI (NVD); abnormal taste; headache ¹¹
Clindamycin (Cleocin®)	x		x			x	x		Take with food			Diarrhea (may be pseudomembranous colitis); NV; rash ¹¹
Clofazimine (Lamprene®)	x		x			x	x		Take with food			Skin and fluid discoloration, rash, dry eyes. ¹⁰
Dapsone	x					x	x					Anemia ¹¹
Dicloxacillin (Dynapen®)	x					x	x		Take with food			Stomach upset, gas, loose stools, skin rashes, redness, itching.
Erythromycin	x					x	x		Take with food			Abdominal pain, changes in appetite, abnormal liver function.
Ethambutol (Myambutol®)	x		x			x	x		Take with food			Decrease in visual acuity, rashes, joint pain, stomach upset, abdominal pain, fever.

HIV Medications and Nutritional Complications

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Medication	Without Food											Other Considerations
	Rx	OTC	A	D	C	N	V	Ft	H	With Food	containing antacids.	
Iodoquinol (Xodoxin®)			x	x		x	x			Take with food		dizziness, mental confusion.
Isoniazid=INH (Nydrazid®)	x					x	x			Take on empty stomach 1 hour before or after eating; add B6 supplements	Avoid alcohol	Noninfectious hepatitis, B6 deficiency
Metronidazole (Flagyl®)	x		x	x		x	x			Take with food	Avoid all alcohol.	Dry mouth, metallic taste, dizziness, confusion, rash. ¹⁰
Minocycline	x									Take with food	Should not be taken with antacids or mineral supplement	Dizziness, drowsiness. ¹⁰
Paromomycin (Humatin®)	x		x			x				Take with food	Not to use with aminoglycosides	Abdominal cramps
Pentamidine (NebuPent®, Pentam®)	x		x			x	x				kidney or liver disease	Metallic taste; dyspnea; hypoglycemia and hyperglycemia (diabetes); hypotension; rash. ¹²
Penicillin V (Pen. Vee® K)	x		x			x	x			Take with food for more consistent blood levels.	Should not be taken with fruit juice or carbonated beverages.	Rash; stomach upset; black, hairy tongue, less frequently; allergic skin reactions and anaphylactic shock. ¹
Primaquine						x	x					Anemia; abdominal pain; GI (NV) ¹¹
Pyrimethamine (Daraprim®)	x		x			x	x			Take with food	Caution with liver or kidney impairment.	Megaloblastic anemia, tongue tenderness, taste loss, abdominal cramp, bone marrow suppression. ⁹
Pyrazinamide						x	x			Take with food		Muscle/joint aches; GI (NV)
Rifabutin (Mycobutin®)	x					x	x			Take with food to reduce upset stomach	High fat meals slow absorption	Discolored urine, stomach upset, rashes, taste changes. ¹⁰
Rifampin (Rifadin®, Rimactane®)			x			x	x			Take on empty stomach 1 hour before or after eating.		Discolored urine; neutropenia; rash ¹¹
Streptomycin (ONLx INJECTION)	x		x			x	x					Toxicity to kidney, nerves, ears ¹¹
Sulfadiazine (Microsulfon®)	x									Take on empty	Caution in	Fever; itching; rash; photosensitivity;

HIV Medications and Nutritional Complications

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 Others = More concerns

Medication	Rx											Other Considerations				
	OTC	A	D	C	N	V	Ft	H	6*	Others	More concerns					
													Without Food	With Food	Without Food	With Food
Tetracycline (Achromycin®), Tetracycl®	X		X										stomach		exposure to sunlight	dizziness; headache
Trimethoprim-sulfamethoxazole-TMP-SMX = cotrimoxazole (Bactrim®, Septtra®)	X		X										Take on empty stomach 1 hour before or 2 hours after meals.			Stomach upset, rash, hairy tongue, itching, fevers, chills, anemia, skin discoloration
ANTIFUNGALS																
Amphotericin B			X										Take on empty stomach			Kidney toxicity, anemia, fever, altered blood pressure.
Clotrimazole (lotion, cream, solution, troches)	X															Topical administration may cause itching, rashes, redness, stinging, blistering, peeling, swelling, burning.
Fluconazole (Diflucan®)	X		X													Nausea; rash; diarrhea ¹¹
Flucytosine	X		X													Dry mouth, abdominal pain, rash, confusion, anemia. ⁹
Itraconazole (Sporonox®)	X		X										Take with food			Nausea ¹¹
Ketoconazole (Nizoral®)	X		X										Take with food			Nausea; vomiting; itching; abdominal pain
Nystatin (Mycostatin®)	X		X													GI distress, stomach pain. ¹⁰
ANTIDEPRESSANTS / ANTIANXIETY TX																
Amitriptyline (Elavil®)	X												Take with food			Dry mouth, taste changes, increase risk of dental problems, sedation, weakness, edema, rash. ¹⁰
Amoxapine (Asendin®)																Weight loss, restless, agitation, anxiety, insomnia, confusion, hyperactivity, feeling of elation, delusions, hallucinations, or impaired mental function.
Bupropion (Wellbutrin®)	X															Increase appetite, increase wt, dry mouth, drowsiness, blurred vision, weak, hypotension, hypertension, confusion.
Desipramine (Norpramin®)	X		X										Take with food			Dry mouth, taste changes, dyspepsia, tremor, insomnia, drowsiness. ¹⁰
Fluoxetine (Prozac®)	X		X													Dry mouth, taste changes, dyspepsia, tremor, insomnia, drowsiness. ¹⁰

HIV Medications and Nutritional Complications

x = Possible
 Rx = Prescription
 OTC = Over-the-counter
 A = Appetite Loss
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 C = Constipation
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 Ft = Fatigue
 H = Headache
 * = Contraindication
 Others = More concerns

Medication	Rx		A		D		C		N		V		Ft		H		Without Food	Other Considerations	
	OTC	A	D	C	N	V	Ft	H	With Food										
Lorazepam (Ativan®)	x																	Drowsiness, confusion, habit-forming (1 st line agent)	
Nefazodone (Serzone®)																		Sedation, drowsiness. ¹⁰	
Nortriptyline (Pamelor®)	x								x	x							Take with food	Not with tryptophan supplement	
Paroxetine (Paxil®)	x								x	x							Take with food	Dry mouth, taste changes, weakness insomnia, drowsiness, sweating, edema, hypertension, tremor, rash. ¹⁰	
Sertraline (Zoloft®)	x								x	x							Take with food	Dry mouth, dyspepsia, insomnia, dizziness, tremor. ¹⁰	
Trazodone (Desyrel®)	x								x	x							Take with food	Increase or decrease appetite, dry mouth, increase risk of dental problems, drowsiness, blurred vision. ¹⁰	
Venlafaxine (Effexor®)	x								x	x							Take with food	Drowsiness, dry mouth, insomnia, weakness, sweating.	
ANTIEMETICS & APPETITE STIMULANTS																			
Diphenhydramine (Benadryl®)																			Dry mouth, sedation, dizziness, urinary retention
Prochlorperazine (Compazine®)	x																		Abnormal movements; hypotension; dizziness ¹¹
Promethazine (Phenergan®)	x																		Same as above
Trimethobenzamide (Tigan®)	x																		Same as above
Metoclopramide (Reglan®)	x																		Diarrhea; weakness; restlessness ¹¹
Dronabinol (Marinol®)	x																		Drowsiness; confusion; habit-forming
Medical marijuana	x																		Drowsiness; confusion; habit-forming
Megestrol acetate (Megace®)	x																		Changes in menstrual flow; anorexia; edema
Ondansetron (Zofran®)	x																		Constipation; diarrhea; headache; fever ¹¹
CHEMOTHERAPEUTIC AGENTS																			
Bleomycin sulfate (Blenoxane®)	x																		Pulmonary toxicity; fever, rash, chills. ¹⁰
Cyclophosphamide (Cytoxan®)	x																		Bladder inflammation/bleeding; temporary hair loss; GI (NVD); BM suppression ¹
Cytarabine (Cytosar-U®)																			
Daurubicin = liposomal adriamycin (DaunoXome®)	x																		Congestive heart failure; BM suppression; hair loss; fever; difficulty breathing, abdominal or drug-related birth

HIV Medications and Nutritional Complications

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Medication	With Food							Without Food		Other Considerations	
	Rx	OTC	A	D	C	N	V	Ft	H		defects
Doxorubicin (Adriamycin®)	x					x	x			Avoid alcohol	back pain, anorexia, Dry mouth, glossitis, stomatitis, GI ulceration, esophagitis, fever, rash. ¹⁰
Etoposide (VePesid®)			x	x		x	x				GI (NVD); BM suppression ¹¹
Interferon-alpha (Intron-A®)	x		x	x		x	x				Abdominal pain, fever, muscle weakness dizziness, coughing, depression ¹
Methotrexate (Reumatrex®)	x					x			Take two hours after meal and one hour before next meal or snack		Liver damage, lung damage, anemia reduced white blood cell counts, stomach ulcers, GI (NVD). ¹¹
Paclitaxel (Taxol®)	x					x	x			Not to combine with other neuropathy- inducing drugs.	Irregular heart rhythm, hair loss, diarrhea, skin rashes, stomach irritation, seizures.
Vincristine (Oncovin®)	x					x	x			Do not use with mitomycin-C.	Peripheral neuropathy; hair loss, reduced white blood cell counts, GI (NVD). ¹¹
Vinblastine (Velban®)	x					x	x			Ensure adequate fluid intake. ¹⁰	Stomatitis, sore throat, abdominal pain, hypertension. ¹⁰
IMMUNE BASED THERAPIES + BONE MARROW BOOSTERS											
Cyclosporine (Cyclosporin®)	x										
Erythropoietin (Procrit®, Epreo®)	x					x	x	x		Not for people with uncontrolled high BP or anemia Vitamin B12 supplementation may be needed	Gum disease, kidney & liver toxicity, high blood pressure Hypertension; fever; bone or muscle pain; cough. ¹⁰
Granulocyte-colony stimulating factor (G-CSF) = filgrastim (Neupogen®)	x										Bone pain
Granulocyte macrophage colony stimulating factor (GM-CSF)											Chills, elevated liver enzymes, rash, muscle pain.
Interleukin-2 (Proleukin®)						x	x	F		Abnormal or lung function	Fever, chills, malaise, fatigue (flu-like illness) ¹¹

HIV Medications and Nutritional Complications

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6 = Contraindication
 Others = More concerns

Medication	Without Food											Other Considerations	
	Rx	OTC	A	D	C	N	V	Et	H	With Food	Without Food		
Intravenous immune globulin (IVIG)	x					x	x						Fever, chills, faintness
Leucovorin calcium						x	x			Take with food			
Prednisone (Deltasone®))	x									Take with food			May cause salt retention, salt intake needs to be restricted. GI (NVD, ulcers) Mood changes Hair growth (hirsutism) Long term use: osteoporosis, cataracts ¹¹
ANALGESICS													
OPIATES/ANTAGONISTS													
Codeine						x	x						Opiates in general: ¹² Decreased level of consciousness; sedation; lightheadedness; disorientation; dry mouth; constipation
Fentanyl (Duragesic®, Sublimaze®)	x					x	x						Caution in persons with history of substance use. Avoid alcohol
Hydrocodone Bitartrate	x					x	x						Not for mild or intermittent pain.
Methadone	x					x	x						
Morphine										Take with food			
Oxycodone (Percodan®, Percocet®)	x					x	x			Take with food			
NSAIDs (Non-steroidal anti-inflammatory agents)													
Ibuprofen (Motrin®)	x					x	x			Take with food			NSAIDs in general: ¹² • GI irritation (pain, decreased appetite, ulcers, bleeding) • Allergic reactions
Indomethacin (Indocin®)	x					x	x						
Naproxen (Naprosyn®)						x	x						
Sulindac (Clinoril®)	x					x	x						Stomatitis
CNS STIMULANTS													
Methylphenidate (Ritalin®)	x					x	x						May cause severe rises in blood pressure if combined with Severe low blood pressure, respiratory arrest shock, heart attack, dizziness, sedation, cramps, dry mouth, taste alterations, sweating ¹

HIV Medications and Nutritional Complications

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⚡ = Contraindication
 Others = More concerns

Medication	With Food											Without Food	Other Considerations	
	Rx	OTC	A	D	C	N	V	Ft	H				MAO inhibitors	

Please help us keep this updated by reporting any errors or new information: 323-993-1612 or mfenton@apla.org, Nutrition & HIV Program, AIDS Project Los Angeles
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Marcy Fenton, MS, RD, AIDS Project Los Angeles, Nutrition & HIV Program: 323-993-1612, 1996 revisions: 9/96, 3/97, 4/97, w/ Angela Liang 10/98, w/ Dr. Katz 4/99

References:

1. Project Inform: *The HIV Drug Book, 2nd Edition*. Pocket Books, 1998.
2. *Prevention and treatment of wasting in HIV Disease*. Numedx, 1(1), fall 1997.
3. UniMed Pharmaceuticals, Inc. *Anadrol-50 (Oxymetholone)* (product information), 1997
4. San Francisco AIDS Foundation: *Promising New Drugs in Development* (summary sheet), 1997
5. Stadlanders: The future of HIV drugs. *Lifetimes 2*, update from issue 1, 1998
6. Hanna L: Nausea and vomiting. *BETA*, 23-26, June 1997
7. Eldridge B: Nutritional care in HIV infection and AIDS., in *Krause's Food, Nutrition & Diet Therapy: 9th edition*. Mahan and Escott-Stump editors, 1996.
8. Arky R, et al.: *Physicians' Desk Reference, 51st Edition*, Medical Economics, Inc. 1997.
9. Pronsky ZM & Fields-Gardner C: *HIV Medications Food Interactions, 1st Edition*. Food-Medication Interactions, 1998.
10. Pronsky ZM: *Food Medication Interactions, 10th Edition*. Food-Medication Interactions, 1997-98.
11. Kaiser Permanente Drug Formulary Southern California, 1997-98.
12. Katz, Mark MD. Personal communication, 1999

HIV Medications and Nutritional Complications

"Additional Food List" for Crixivan® (indinavir sulfate)*

by HIV/AIDS Dietetic Practice Group of The American Dietetic Association

These snacks were selected to meet the following requirements: at or below 2 grams of fat, 5.6 grams of protein, 65 grams of carbohydrate and less than 300 calories in total.

Sabina Beesley, MS, RD, Joya Melissa, RD and Marcy Fenton, MS, RD, members of the HIV/AIDS Dietetic Practice Group of The American Dietetic Association developed this list for Merck & Co. Inc. The FDA approved it in August 1997.

Some comments and clarifications have been added and these are in *italics*.

Food	Serving	Grams of Fat	Grams of Protein	Grams of Carbohydrate	Calories
Nabisco™ Newton Cobbler Bars	3 bars	0	2.4	54	180
Fig bars and juice	2 fig bars, 1 cup juice (not grapefruit)	2.5	1.5	50	224
Cream of rice with skim milk, raisins, and brown sugar	1 cup cooked cream of rice 1/2 cup skim 2 Tbs. sugar 1 Tbs. raisins	0.4	5.6	36	168
Snack well™ wheat crackers with fat free cream cheese and juice	8 Snack well™ crackers 2 Tbs. fat free cream cheese 1/2 cup juice (not grapefruit)	0.1	6	34	161
Pretzels and soda	1 cup pretzels (<i>non fat</i>) 1/2 can of soda or cup juice (not grapefruit juice)	2.0	4.4	59	275
Jello™ with canned fruit And Nabisco™ ginger snaps	1 cup Jello™ 1/2 cup canned fruit 3 Nabisco™ ginger snaps	2.1	4	31	158
Apple sauce and Nabisco™ ginger snaps	1 cup apple sauce 2 Nabisco™ ginger snaps	1.9	1.3	62	252
Bagel and juice	1 <i>small</i> bagel (no seeds or nuts) 1 cup juice (not grapefruit)	0.8	3.7	55	241
Spaghettios in tomato sauce and soda	1 cup Spaghettios 1/2 can of soda or cup juice	2.1	5.3	61	282

* AIDS Project Los Angeles fact sheet (8/15/97, 9/3/98). Adapted from The American Dietetic Association's Additional Food List for Crixivan® (indinavir sulfate), Merck & Co, Inc

HIV Medications and Nutritional Complications

Food	Serving	Grams of Fat	Grams of Protein	Grams of Carbohydrate	Calories
	<i>(not grapefruit)</i>				
Corn tortilla with steamed rice and salsa	1 corn tortilla 1/2 cup rice (prepared without butter or oil) 3 Tbsp salsa	1.5	4.1	35	169
Citrosource™ or Resource™ Fruit Beverage supplement	1/2 box = 1/2 cup	0	4.4	18	90
Rice cakes with jam and juice	2 rice cakes with 2 Tbs. jam 1 cup juice <i>(not grapefruit)</i>	.08	1.4	79	324
Tomato soup, oyster crackers, tea with milk and sugar	1 cup tomato soup(w/ water) 6 oyster crackers 1 cup tea 2 Tbs. skim milk 1 tsp. sugar	2.2	3	25	126
PowerBar™ with Gatorade™	1/2 bar 8 oz Gatorade™	1.3	5.0	36	173
Cereal with skim milk and banana	1 cup dry cereal* 1/2 cup skim milk 1 medium banana	1-2	4-5	31-45	150-180
Spaghetti (prepared without butter or oil) with tomato sauce and juice	1/2 cup cooked spaghetti 1/2 cup tomato sauce 1 cup juice <i>(not grapefruit)</i>	0.9	4.9	65	279
Toast (no added butter or margarine) with jam and tea or coffee with skim milk and sugar	1 slice bread 2 Tbs. jam 8 oz tea/coffee 1 tsp. sugar 2 Tbs. skim milk	1.2	3.8	57	250
Plain popcorn (fat free, no butter or oil added, air popped or microwavable) and soda	3 cups popped pop corn 1 can soda or 1 cup juice <i>(not grapefruit)</i>	0	3.0	53	226
English muffin (no butter or margarine) with jam and regular or herb tea with sugar	1 English muffin 1 Tbs. jam 1 cup herb or regular tea 2 tsp. Sugar	1.0	4.4	49	226
Rice (prepared without oil,	1/2 cup prepared rice	0.5	5.6	28	136

* Cereals include those that contain less than 2 grams protein or fat per 1/2 cup serving. Examples include Corn Pops™, Fruit Loops™, Golden Grahams™, Chex™, Rice Puffs, Corn Flakes™, Wheaties™ Special K™, Cocoa Puffs, Cheerios, Frosted Mini Wheats™, Raisin Bran™, Total™, Shredded Wheat™. Does not include cereal with added nuts, granola, or Cracklin Oat Bran Cereal™.

HIV Medications and Nutritional Complications

Food	Serving	Grams of Fat	Grams of Protein	Grams of Carbohydrate	Calories
butter or margarine) with vegetables and soy sauce	½ cup steamed vegetables 1 Tbs. Soy sauce				
Angel food cake with canned fruit or berries and coffee	1 medium slice angel food cake ½ cup berries or canned fruit 8 oz coffee 2 Tbs. Skim milk 1 tsp. Sugar	0.7	5	50	218
Fruit (not coconut or avocado)	1 cup or 1 medium	0 to 0.5	0	20 to 50	73
Miso soup with a rice ball	10 oz soup 1 plain rice ball (1/4 cup rice)	0.9	5.7	33	164
Noodles (prepared without oil, butter or margarine) and steamed vegetables	½ cup cooked noodles ¼ to ½ cup steamed vegetables	1.5	4.9	25	130
Low- or fat-free vegetable soup# and bread (no butter or margarine)	1 cup soup 1 slice bread (no nuts or seeds)	2.1	4.6	19	120
Quaker™ lowfat chewy granola bar	1 bar	2	2	22	110
Dried fruit (no coconut, nuts, seeds or banana chips)	1/2 cup dried fruit	0	2	52	220
Snack Well™ cereal bar	1 bar	0	1	29	120
Fruit roll up	1 roll up	12	0	1	50
Toast with jelly (no butter or margarine), apple juice and coffee with skim milk and sugar	1 slice of bread, 1 Tbs. jelly 1 cup apple juice 1 cup coffee 2 Tbs. skim milk 1 tsp. sugar	1.1	4	57	250
Jello™ Snack Cup	1 snack cup	0.4	5.1	23	89
Fat free pudding cup	1 pudding cup	0.4	3	21	90
Popsicle (water based only)	1 each (2 fl. oz)	0	0	11	43
Cortido: Corn tortilla with cucumber, tomato, lime juice and green onion	1 corn tortilla 1 medium tomato 1 medium cucumber (peeled) 1 green onion 3 Tbs. lime juice	1.2	4.2	30	130
Matzo and salsa	1 Matzo board	0	3.5	23	120

Includes vegetarian soups, which contain less than 1 gram fat and less than 3 grams protein per 1 cup serving.

HIV Medications and Nutritional Complications

Food	Serving	Grams of Fat	Grams of Protein	Grams of Carbohydrate	Calories
	¼ cup salsa				
Baked potato and salsa	1 medium baked potato (no skin) ¼ cup salsa	0.3	3.5	36	162
Jicama, raw	1 cup	0.2	1	10	46
Pita bread (white, not whole wheat)	1 whole white pita	1.1	5.4	33	165
Health Valley™ Fat Free Breakfast Bar and juice	1 bar 8 oz juice (not grapefruit)	0	2	50	210
Kellogg's Rice Krispies Treats™ crispy marshmallow squares and juice	1 square = 0.78 oz 8 oz juice (not grapefruit)	2	1	45	200

HIV Medications and Nutritional Complications

DAILY ROUTINE CHART

Name: _____

Date: _____

TIME	MEDICATIONS	MEALS/SNACKS	COMMENTS
:— am/pm			

HIV Medications and Nutritional Complications

YOUR COMMENTS

QUESTIONS TO ASK YOUR TREATMENT ADVOCATE

QUESTIONS TO ASK YOUR REGISTERED DIETITIAN

QUESTIONS TO ASK YOUR PHYSICIANS

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The Right Foods

A Guide to Daily Food Choices for People Living With HIV



Benefits, Safety, and Efficacy of Unconventional Remedies

	FOOD GROUP	EXAMPLES OF FOOD CHOICES
E n e r g y	Complex Starches:	Whole grains: wheat, rye, corn, oat, rice, bulgur, kasha, quinoa; whole grain breads, hot and cold cereals, and other grain products like pasta, crackers, ; potatoes, winter squash.
G r o w t h	Animal Protein:	Beef, chicken, fish, duck, pork, turkey, lamb, eggs, milk, cheese, egg or milk-based protein powders
	Plant Protein:	Dried beans (cooked): black, pinto, red, navy, lima, garbanzo, etc., green peas, split peas, lentils, soy foods (soybeans, tofu, soy-based protein powders, tempeh), seeds, nuts and nut butters (peanut, sunflower, sesame, almond, Brazil nuts, etc.)
	Animal Calcium	Milk, cottage cheese, yogurt, hard cheese, ice cream, canned salmon (with bones), canned sardines (with bones)
	Vegetable Calcium:	Tofu processed with calcium, broccoli, Chinese cabbage, almonds, dried figs, greens (chard, mustard, collard), calcium fortified orange juice or soy milk
P r o t e c t i o n	Vitamin A rich foods:	Carrots, red peppers, sweet potato, oranges, strawberries, tomatoes, spinach, pumpkin, cantaloupe, watermelon, greens (collard, arugala, turnip), winter squash
	Vitamin C rich foods:	Guava, red and green bell peppers, papaya, orange and grapefruit and their juices, broccoli, Brussels sprouts, kohlrabi, strawberries, kiwi, cantaloupe, tomatoes and tomato juice, spinach, cabbage
	Other Fruits & Vegetables	Apple, banana, pear, prunes, eggplant, onions, lettuce, zucchini, raisins, peaches, celery, mushrooms, turnips, radishes, asparagus,
E E x t r a g y	Simple Sugars:	White table sugar, brown sugar, honey, molasses, corn syrup, sodas, candy
	Fats:	Mono-unsaturated oils: olive, canola, flaxseed, and peanut oils, olives, avocado Poly-unsaturated fats: safflower, corn, soybean, cottonseed, sesame, and sunflower oils, and in liquid or soft margarine Saturated fats and oils: butter, hard margarine, coconut and palm oils, beef fat, chicken fat, bacon, pork
	Supplements:	<ul style="list-style-type: none"> • Vitamin/Mineral – A “One-a-day” type, around 100% RDA – take two each day <i>one in the morning and one in the evening</i> • Vitamin E – 400 IU each day • Vitamin C – 500-1000 mg each day • B-complex – one each day
E P r e c i s i o n		

ALGORITHMS FOR NUTRITIONAL CARE

HIV/AIDS Medical Nutrition Therapy

The following pages include:

1. Nutrition Referral Criteria for Adults (over 18 years) with HIV/AIDS

2. Nutrition Referral Criteria for Pediatric (under 18) with HIV/AIDS

Nutrition Referral Criteria for Adults and Pediatrics contain conditions to trigger an automatic referral for HIV/AIDS medical nutrition therapy. These criteria appear in *Guidelines for Implementing HIV/AIDS Medical Nutrition Therapy*, approved by the Los Angeles County Commission on HIV Health Services (1999).

3. Karnofsky Performance Status Scale (see page 8-5)

The Karnofsky Performance Status Scale is used by many HIV clinicians, agencies and research studies to assess an individual's functional status. The HIV/AIDS Adults Medical Nutrition Therapy Protocol utilizes the scale as a measurement of functional outcomes.

4. Nutrition Services Screening/Referral

This is a sample screening and referral form. It was developed and implemented by a Ryan White CARE Act Title III grantee clinic utilizing the Nutrition Referral Criteria for Adults (see above).

5. HIV/AIDS Adults Medical Nutrition Therapy Protocol, and

6. HIV/AIDS Children/Adolescents Medical Nutrition Therapy Protocol

Medical nutrition therapy protocols are a plan or a set of steps, developed through a consultative process by experts and practitioners. They incorporate current professional knowledge and available research, and clearly define the level, content, and frequency of nutrition care that is appropriate for a disease or conditions in typical settings.

ALGORITHMS FOR NUTRITIONAL CARE

Medical nutrition therapy (MNT) protocols for HIV/AIDS and other medical nutrition conditions were developed in response to the needs of members of the dietetics profession, medical care payers, managed care organizations and others to define the care provided by registered dietitians and expected outcomes. The Quality Management Committee of the American Dietetic Association designed the protocol format in 1995 after reviewing more than 20 protocols from state affiliate organizations, health maintenance organizations and federal agencies. Published in *Medical Nutrition Therapy Across the Continuum of Care* (ADA, 1998) the MNT protocols are communication tools that focus on quality care and provider accountability.

The 1996 HIV/AIDS Adult MNT Protocol's original co-authors were Laura Vazzo, RD, MEd, and Marcy Fenton, MS, RD, and updated in 1998 with members of the Quality Management Committee of the HIV/AIDS Dietetic Practice Group. The HIV/AIDS Children/Adolescents Medical Nutrition Therapy Protocol authors are members of the Pediatric Nutrition and HIV/AIDS Dietetic Practice Groups. Both sets of protocols appear here with permission from the American Dietetic Association.

ALGORITHMS FOR NUTRITIONAL CARE

Nutrition Referral Criteria for Adults (over 18 years) with HIV/AIDS*

A referral to a registered dietitian is automatic when any one of the following conditions exist:

1.	Newly diagnosed HIV infection or never been seen by a registered dietitian
2.	Not seen by a registered dietitian in six months.
3.	Diagnosed HIV with symptoms, AIDS, or to receive palliative care.
4.	Greater than 5% unintentional weight loss from usual body weight in last 6 months or since last visit. <i>% weight loss formula: usual body weight - current body weight / usual body weight x 100</i>
5.	Visible wasting, less than 90% ideal body weight, less than 20 BMI, or decrease in body cell mass (BCM)
6.	Poor oral intake of food or fluid
7.	Persistent diarrhea, constipation, change in stools (color, consistency, frequency, smell).
8.	Persistent nausea or vomiting
9.	Persistent gas, bloating, heart burn
10.	Difficulty chewing, swallowing, mouth sores, thrush, severe dental caries
11.	Changes in perception of taste or smell
12.	Food allergies or intolerance (fat, lactose, wheat, etc.)
13.	Financially unable to meet caloric and nutrient needs
14.	Concomitant hypo- or hyperglycemia, insulin resistance, hyperlipidemias, hypertension, hepatic or renal insufficiency, heart disease, cancer, pregnancy, anemia, or other nutrition related condition
15.	Albumin less than 3.5 mg/dL, prealbumin 19-43 mg/dL
16.	Cholesterol less than 120 mg/dl and greater than 200 mg/dl
17.	Triglycerides greater than 200 mg/dl
18.	Scheduled chemotherapy or radiation therapy
19.	Medication involving food or meal modification
20.	Need for enteral or parenteral nutrition
21.	Client or MD initiated weight management, or obesity: BMI greater than 30
22.	Client initiated vitamin/mineral supplementation, complementary or alternative diet-related therapies
23.	Vegetarianism

* Asarian-Anderson J, Fenton M, Heller L, Vazzo L, et al: in *Guidelines for Implementing HIV/AIDS Medical Nutrition Therapy*, Los Angeles County Commission on HIV Health Services, 1999. Used by permission.

ALGORITHMS FOR NUTRITIONAL CARE

Nutrition Referral Criteria for Pediatrics (under 18 years) with HIV/AIDS*

A referral to a registered dietitian is automatic when any one of the following conditions exist:

1.	Newly diagnosed HIV infection or never been seen by a registered dietitian
2.	Not seen by a registered dietitian in 3 months.
3.	Diagnosed HIV with symptoms, AIDS, or to receive palliative care.
4.	Weight for age <10 th percentile (NCHS)
5.	Height for age <10 th percentile (NCHS)
6.	Weight for height (less or equal to symbol) 95% of standard, or weight for height < 25 th percentile (less or equal to)
7.	Downward crossing of one major weight for age percentile
8.	Visible wasting, less than 95% ideal body weight, BMI less than or equal to 25 th percentile for age and gender, or decrease in body cell mass (BCM)
9.	Poor appetite, food or fluid refusals
10.	Prolonged bottle feeding or severe dental caries
11.	Change in stools (color, consistency, frequency, smell)
12.	For children 0-12 months: Low birth weight
13.	For children 0-12 months: No weight gain x 1 month
14.	For children 0-12 months: Diarrhea or vomiting x 2 days
15.	For children 0-12 months: Poor suck
16.	For children 1-3 years: No weight gain x 2 consecutive months
17.	For children 1-3 years: Diarrhea or vomiting x 3 days
18.	For children 4-16 years: No weight gain x 3 consecutive months
19.	For children 4-18 years: Diarrhea or vomiting x 4 days.
20.	Persistent gas, bloating, heart burn
21.	Persistent nausea
22.	Difficulty chewing, swallowing, mouth sores, thrush, poor feeding skills
23.	Food allergies or intolerance (formula, fat, lactose, wheat, etc.)
24.	Financially unable to meet caloric and nutrient needs
25.	Concomitant hypo- or hyperglycemia, insulin resistance, hyperlipidemias, hypertension, hepatic or renal insufficiency, heart disease, cancer, pregnancy, anemia, inborn error of metabolism, or other nutrition related condition.
26.	Need for enteral or parenteral nutrition
27.	Albumin less than 3.5 mg/dL, prealbumin: 9-22 mg/dL (0-6 mo), 11-29 mg/dL (6 mo-6yr), 15-37 mg/dL (6-16 yr)
28.	Cholesterol less than 65 mg/dl or greater than 200 mg/dl
29.	Triglycerides greater than 40 mg/dl and greater than 160 mg/dl
30.	Scheduled chemotherapy or radiation therapy
31.	Medication involving food or meal modifications
32.	Client or MD initiated weight management, vitamin/mineral supplementation, vegetarianism, complementary or alternative diet-related therapies.

* Fenton M, Heller L, Vazzo L, et al.: in *Guidelines for Implementing HIV/AIDS Medical Nutrition Therapy*, Los Angeles County Commission on HIV Health Services, 1999. Used by permission.

ALGORITHMS FOR NUTRITIONAL CARE

Karnofsky Performance Status Scale

Status	Scale
Normal, no complaints	100
Able to carry on normal activities. Minor signs or symptoms of disease.	90
Normal activity with effort.	80
Cares for self. Unable to carry on normal activity or to do active work.	70
Requires occasional assistance, but able to care for most of his/her needs.	60
Requires considerable assistance and frequent medical care.	50
Disabled. Requires special care and assistance.	40
Severely disabled. Hospitalization indicated though death not imminent.	30
Very sick. Hospitalization necessary. Active supportive treatment necessary.	20
Moribund.	10
Dead	0

Karnofsky et al: The use of the nitrogen mustards in the palliative treatment of carcinoma. *Cancer*, 1:634-656, 1958.

ALGORITHMS FOR NUTRITIONAL CARE

NUTRITION SERVICES SCREENING/REFERRAL

Client Name: _____ Gender: _____ Program/File#: _____ or DOB: ____/____/____

Client Contact Telephone #: _____ Language: _____ Medicaid Waiver Client? Yes No

Referred By: _____ Ext: _____ Insurance: _____

Nutrition Screening

Height (in.): _____ Current Weight (lb): _____ Changes in weight status? Yes No
If yes, How much? _____ Lost Gained Over what period of time? _____

Has client ever had a bioelectrical impedance analysis (BIA) of body composition? Yes No

Dietary Problems

Poor appetite Missing teeth Pain in mouth, teeth, or gums Consumes > two alcoholic beverages/day

Living Environment

Lives on income of < \$6,000/yr Unable to secure and prepare food Homebound Doesn't have a stove or refrigerator

Functional Status

Karnofsky score: _____

Usually or always needs assistance with: Eating Preparing food Shopping for food or other necessities

Nutrition Referral Criteria for Adults (18+ Years) with HIV/AIDS¹ (Check all that apply)

- Newly dx'ed HIV infection or has never been seen by a registered dietitian
- Not seen by a registered dietitian in six months
- Diagnosed HIV with symptoms, AIDS, or to receive palliative care
- > 5% unintentional weight loss from usual body weight in last 6 months or since last visit
(% wt. loss formula: $\frac{\text{usual body wt} - \text{current body wt}}{\text{usual body wt}} \times 100$)
- Visible wasting, < 90% ideal body weight, < 20 BMI, or decrease in body cell mass (BCM)
- Poor oral intake of food or fluid
- Persistent diarrhea, constipation, change in stools (color, consistency, frequency, smell)
- Persistent nausea or vomiting
- Persistent gas, bloating, heartburn
- Difficulty chewing, swallowing, mouth sores, thrush, severe dental caries
- Changes in perception of taste or smell
- Food allergies / intolerance's (fat, lactose, wheat, etc.)
- Financially unable to meet caloric and nutrient needs
- Concomitant hypo- or hyperglycemia, insulin resistance, hyperlipidemias, hypertension, hepatic or renal insufficiency, heart disease, cancer, pregnancy, anemia, or other nutrition related condition
- Albumin < 3.5 mg/dL, prealbumin 19-43 mg/dl
- Cholesterol < 120 mg/dl and > 200mg/dl
- Triglycerides > 200 mg/dl
- Scheduled chemotherapy or radiation therapy
- Medication involving food or meal modification
- Need for enteral or parenteral nutrition
- Client or MD initiated weight management, or obesity: BMI > 30
- Client initiated vitamin/mineral supplementation, complimentary or alternative diet related therapies

¹ Fenton M, Heller L, Vazzo L, et al. Dietitians in AIDS Care, AIDS Project Los Angeles, 1998. Nutrition screening referral criteria included in: *Guidelines and Protocol of Care for Providing Medical Nutrition Therapy to HIV-Infected Persons* Approved by the Los Angeles County Commission on HIV Health Services, September 2000.

Adapted by Long Beach CARE Clinic | Tammy Darke, Rd, CNSD | Long Beach, CA

ALGORITHMS FOR NUTRITIONAL CARE

Referral Guidelines

1-2 items checked – individual at mild risk for malnutrition → Discuss w/ R.D. need for referral.

3-4 items checked – individual at moderate risk for malnutrition → Refer to R.D.

> 4 items checked – individual at high risk for malnutrition → Refer to R.D. for immediate appointment

Medical Information

HIV M.D.: _____ Phone #: _____

Address: _____

HIV Dx Date: _____ AIDS Dx? Yes No If yes, Date: _____

Past Medical History: _____

Current Medical Status: _____

Current Laboratory Values: _____

Additional Information: _____

Required Documentation to be Provided

- Documentation of HIV disease or AIDS signed by a State of California licensed physician
- Proof of gross income (most recent)
- Proof of Los Angeles County residency (most recent)
- Intake evaluation
- Authorization to Release Information

*Dietitian must have this form and all required documentation before appointment can be made

*Appointment Date: _____ * R.D. will schedule

ALGORITHMS FOR NUTRITIONAL CARE

HIV/AIDS ADULTS

Medical Nutrition Therapy Protocol

Setting: Ambulatory Care or adapted for other health care settings (Adult 18+ years old)

Number of sessions: *See Level of Care defined (pages 9-10).

No. of interventions	Length of contact	Time between interventions	Cost/charge
Level 1 and 2 1-2 F/U session/yr	60 minutes initial 15-30 minutes F/U session	Based on assessment and/or level of care	
Level 3 2-6 sessions/yr	30-60 minutes initial 15-30 minutes F/U session	Based on assessment and/or level of care	
Level 4 2-6 sessions/yr	30-60 minutes initial 15-30 minutes F/U session	Based on assessment and/or level of care	

Expected Outcomes of Medical Nutrition Therapy

Outcome assessment factors	Intervention			Expected outcome	Ideal/goal value
	Base-line	Evaluation of Intervention			
	1	2	3		
Clinical <ul style="list-style-type: none"> Biochemical parameters <ul style="list-style-type: none"> Albumin, prealbumin CBC Cholesterol, triglycerides BUN, creatinine, glucose Electrolytes, testosterone CD4, CD8, viral load Anthropometrics <ul style="list-style-type: none"> Weight, height, BMI, lean body mass, body cell mass Clinical signs and symptoms Oral health status 	✓	✓	✓	Levels of care 1, 2 stay within normal levels, levels of care 3, 4 minimize ↓ in biochemical parameters Triglyceride, BUN, creatinine, glucose, electrolytes, CD4, CD8, viral load values: use to evaluate therapy Minimize weight loss, lean body mass (LBM), and body cell mass (BCM) loss Prevent dehydration, minimize severity of side effects of treatment: eg, diarrhea, nausea/vomiting, dysphagia Maintain adequate oral health	Albumin 3.5-5.0 g/dL Prealbumin 19-43 mg/dL HgB >12 g/dL (F), >14 g/dL (M); Hct >38% (F), >44% (M); Cholesterol <200 mg/dL Triglycerides <200 mg/dL Glucose <110-115 mg/dL Viral load <500 copies HIV RNA/mL Maintain weight to ≥95% usual; BMI 20-25 Maintain LBM and BCM Symptom free
Functional <ul style="list-style-type: none"> Improved performance Improved ADLs or IADLs 	✓	✓	✓	Maintain nutritional health to maintain performance per ADLs/IADLs or using Karnofsky performance scale ¹	Intake adequate to maintain performance or ADLs/IADLs
Behavioral* <ul style="list-style-type: none"> Nutrient intake to maintain or increase weight Employs food/ water safety and sanitation practices Follows therapeutic meal prescription² Consumes adequate nutrients, foods/supplements, and has knowledge of alternative feeding routes Includes/avoids foods based on side effects of medication or symptoms of infection Communicates use of alternative nutrition therapies to RD as appropriate Smoking/caffeine/recreational drugs Exercise Food security and barriers to care 	✓	✓	✓	<ul style="list-style-type: none"> Maintains weight, LBM, BCM, and hydration status Prevents food- and water-borne illness Adheres to therapeutic meal prescription Verbalizes need for oral supplements or alternative feeding route Minimizes side effects from meds and/or symptoms of infection Avoids vitamin/mineral deficiencies or toxicity ↓ or stops smoking, caffeine use, or recreational drugs Participates in resistance exercise and aerobic exercise 3-5x/wk Accesses appropriate community and supportive resources 	MNT Goals <ul style="list-style-type: none"> Calories and protein to maintain weight and LBM Fluid intake adequate to maintain hydration status Remain free of food- and water-borne illness Meal prescription timing and foods to optimize drug therapy effectiveness Maintain adequate vitamin/mineral intake Utilize food security resources when necessary

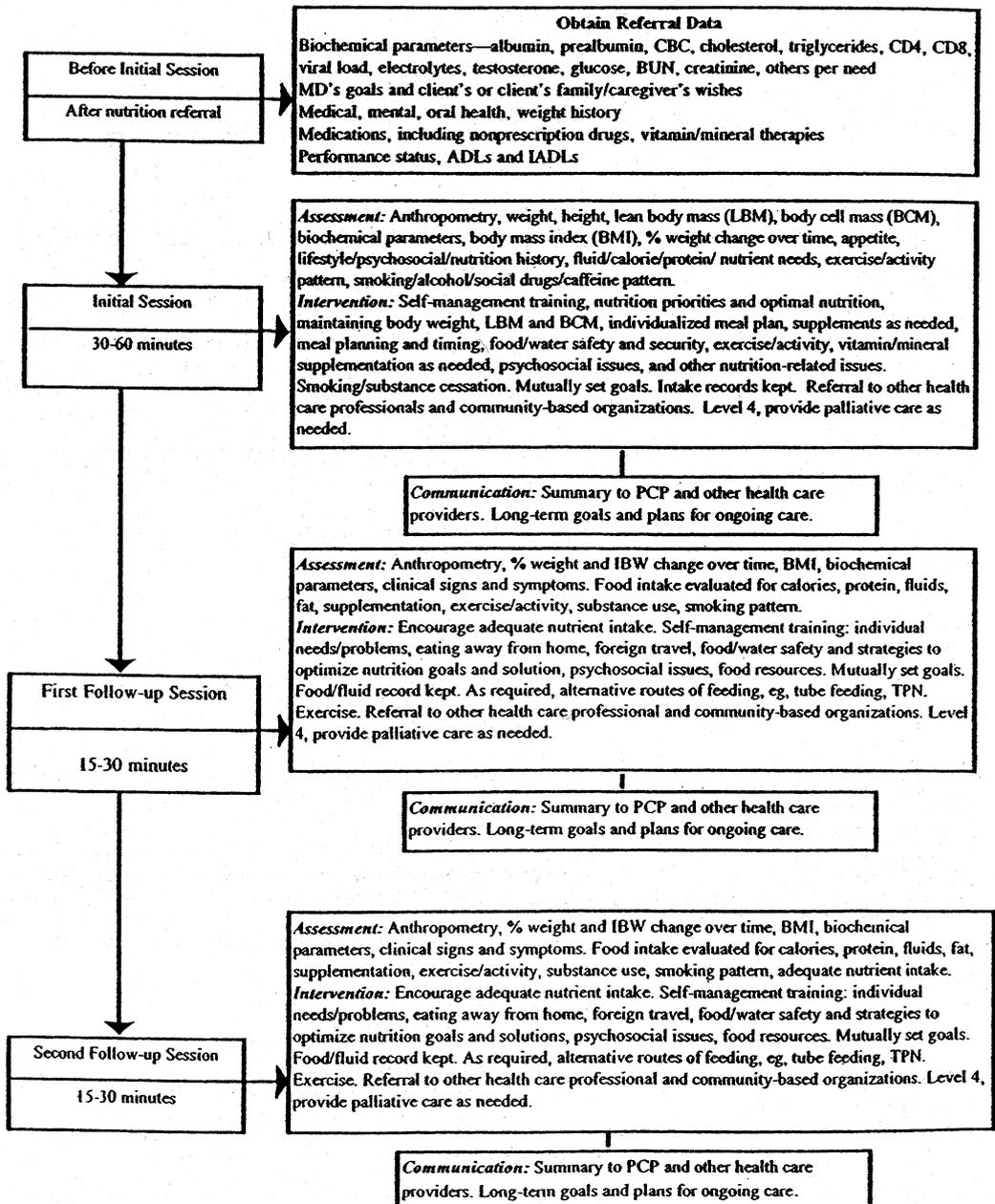
*Session in which behavioral topics are covered may vary according to client's readiness, skills, resources, and need for lifestyle change.

¹Karnofsky DA. Meaningful clinical classification of therapeutic responses to anticancer drugs. *Clinical Pharmacol Ther.* 1961;2:709-712. Editorial.

²Therapeutic meal prescription includes the diet order, consistency of food, meal/medication schedule, allergies, food intolerances, and route of feeding.

ALGORITHMS FOR NUTRITIONAL CARE

HIV/AIDS ADULTS Medical Nutrition Therapy Protocol



P Twenty-two points, plus triple-word-score, plus fifty points for using all mv

Medical Nutrition Therapy Across the Continuum of Care

©1998, The American Dietetic Association
Developed by ADA and Morrison Health Care.

ALGORITHMS FOR NUTRITIONAL CARE

HIV/AIDS Defined Levels of Care¹

Level of Care 1: HIV Asymptomatic

Clients diagnosed with HIV infection. Disease activity is characterized by persistent generalized lymphadenopathy (PGL). The client is asymptomatic and does not experience complications affecting medical, nutrition, or functional health status. The primary goal of medical nutrition therapy is preservation of lean body mass, prevention of weight loss, and maintenance of nutrition health status.

Level of Care 2: HIV/AIDS Symptomatic but Stable

Clients have symptoms attributed to HIV infection or have a clinical condition that is complicated by HIV. Disease activity is managed and symptoms are controlled. Impact on medical, nutrition, and functional health status is manageable. The primary goal of medical nutrition therapy is maintenance of weight, lean body mass, and managing symptoms and side effects associated with medical treatment.

Level of Care 3: HIV/AIDS Acute

Clients have acute signs and symptoms of AIDS-defining conditions as a result of disease progression. Medical, nutrition and functional health status is being affected. Clients may be hospitalized or frequency of outpatient visits may increase. The primary goal of medical nutrition therapy is maintaining weight, preserving lean body mass, preventing further weight loss, and managing symptoms and side effects of medical treatment.

Level of Care 4: Palliative

Clients have active disease progression, with care emphasis on the last stages of life. Medical, nutrition and functional health status is compromised. Clients care may be provided in the home setting, or in a residential care or long term care facility. In some instances hospitalization may be required. The primary goal of medical nutrition therapy is alleviation of symptoms while providing nutrition treatment that maintains hydration status and supports the client through the dying process.

¹Levels of Care based upon criteria established by HIV/AIDS Dietetic Practice Group of The American Dietetic Association, 1998.

ALGORITHMS FOR NUTRITIONAL CARE

Guidelines for Medical Nutrition Therapy¹

Guideline 1: Starting baseline medical nutrition therapy

Within one to six months after an HIV positive diagnosis, the patient should receive as a baseline, a comprehensive nutrition assessment, self-management training, nutrition education, and appropriate recommendations and intervention following the HIV/AIDS Medical Nutrition Therapy Protocol. □ HIV/AIDS medical nutrition therapy includes analysis of dietary history and intake, height, weight, pre-illness usual weight, lean body mass and fat. Skinfold calipers and measuring tape, DEXA, bioelectric impedance analysis (BIA) or other comparable means can assess lean body mass and fat.

Appropriate nutritional lab assessments, such as CBC, lipid panel, blood sugar and liver function tests should be done to identify and provide intervention strategies for clinical manifestations of drug toxicities and underlying abnormalities, such as anemia, vitamin depletion, diabetes mellitus, hypertension and other medical conditions.

Guideline 2: Referring for ongoing medical nutrition therapy

After receiving a baseline nutrition assessment, the patient should receive regular and ongoing HIV/AIDS medical nutrition therapy. This should occur:

- ❖ With asymptomatic HIV infection, at least one to two times per year.
- ❖ With HIV symptoms or an AIDS diagnosis, at least two to six times per year.
- ❖ When there is new nutrition related clinical developments.
- ❖ As needed for ongoing nutrition related clinical complications.
- ❖ If necessitated by the clients ability to understand and incorporate nutrition management skills.

Immunocompetency Panel		
% CD3 (Mature T Cells)	62-87% Absolute CD3 Cells	630-3170 per CMM
% CD4 (Helper Cells)	32-62% Absolute CD4 Cells	400-1770 per CMM
% CD8 (Suppressor T Cells)	17-44% Absolute CD8 Cells	240-1200 per CMM
% CD16 (Natural Killer Cells)	6-22% Absolute CD16 Cells	60-420 per CMM
% CD19 (B Celles)	7-22% Absolute CD19 Cells	120-580 per CMM
Helper/Suppressor Ratio: .9 -3.5		
BioTrace Laboratories, 1200 Biscayne Boulevard, Suite 200 North Miami, 33181 Phone: 1-800-895-9905		

¹Guidelines and Protocol of Care for Providing Medical Nutrition Therapy to HIV-Infected Persons: Standards of Care Committee. LA County Commission on HIV Health Services, 11/4/97.

²Fields-Gardner C, Thomas CA, Rhodes SS. A Clinician's Guide to Nutrition in HIV and AIDS. Chicago, IL: American Dietetic Association; 1997.

ALGORITHMS FOR NUTRITIONAL CARE

HIV/AIDS Levels of Care 1-4 Medical Nutrition Therapy Protocol

Session/length: #1 for 60 minutes

Session Process

Refer to Section II MNT Protocols for Implementation Guidelines.

Assessment

A. Obtain permission to release medical /nutrition therapy information, if needed.

B. Obtain clinical and referral data.

1. *Biochemical parameters:* albumin, prealbumin, CBC, BUN, creatinine, fasting glucose, electrolytes, cholesterol, triglycerides; CD4 or CD8, viral load, testosterone level (total and free), other labs as available or needed, e.g., glutamine, zinc, calcium, selenium, vitamins A and B-12, and iron
2. *Clinical symptoms:* fevers/sweats, anorexia, early satiety, abnormal bowel habits, diarrhea, dysphagia, nausea, vomiting, flatulence, digestive problems, shortness of breath, fatigue
3. *Weight history:* usual weight, previous weights, previous measures of lean body mass (LBM), eg, skinfold measures [triceps skinfold (TSF) and mid-arm muscle circumference (MAMC)], or body cell mass (BCM) using bioelectrical impedance (BIA)
4. *Primary feeding route:* oral, tube feeding, parenteral, or combination
5. *Physician's goals for client*
6. *Medical history:* diabetes, cardiovascular disease, renal disease, GI abnormalities, pancreatitis, liver disease, hepatitis, dental and oral health, and mental health, current diagnosis
7. *All medications:* dose, frequency and timing, prescribed and self-prescribed, e.g., reverse transcriptase inhibitors (e.g., retrovir, videx, zerit, epivir), protease inhibitors (e.g., crixivan, norvir, invirase), antifungal (e.g., amphotericin B), antibacterial (e.g., rifampin), and antiprotozoal, vitamin, mineral, or herbal supplements
8. *Lifestyle and psychosocial/economic history*
9. *Functional status:* assess activities of daily living (ADLs), instrumental activities of daily living (IADLs), or performance using Karnofsky performance scale

C. Interview client.

1. *Anthropometric data:* current height/weight; calculate BMI, % ideal and usual weight, % weight loss over time. If applicable, measure bioelectrical impedance (BIA) or

ALGORITHMS FOR NUTRITIONAL CARE

- obtain skinfold measurements (TSF, MAMC) to estimate LBM or BCM, waist-to-hip ratio, waist circumference, neck circumference
2. *Signs and symptoms*: anorexia, early satiety, diarrhea, nausea/vomiting, maldigestion, flatulence, dysphagia, bowel habits, shortness of breath, fatigue, fever/sweats, pain, and % change over time
 3. *Nutrition history*: usual food intake with attention to calories, fat, protein, fluid, use of vitamin/mineral/herb supplement(s), nonprescription drugs, recreational drug use
 4. *Alcohol and caffeine intake*, food and water safety and sanitation practices, food allergies, food intolerances
 5. *Exercise pattern*: type of activity, frequency, and duration
 6. *Psychosocial and economic issues*: living situation, cooking facilities, finances, educational background, literacy level, primary language, employment, ethnic or religious belief considerations (related to nutrition), family support, food security, access to community resources
 7. *Barriers to care/learning*: assess disabilities, e.g., sight, hearing impairment, language/speech function, mental functioning
 8. *Knowledge/readiness to learn*
 9. *Smoking history*: present pattern, cessation or participation in smoking cessation program

Intervention: Levels of Care 1, 2, and 3

- A. Provide self-management training to client on identified goals/therapeutic meal prescription.
1. Rationale for maintaining/increasing body weight and LBM
 2. Importance of adequate nutrient/fluid intake
 3. Any HIV-related symptoms that may occur (or are occurring)
 4. Meal/medication scheduling
 5. Potential food/drug interaction
 6. Strategies to improve intake of nutrient-dense foods
 7. Importance of progressive resistance exercise and aerobic exercise
 8. Strategies to ensure adequate calories, protein, fluids, e.g., 6-9 minimeals a day, food variety
 9. Vitamin/mineral supplementation to avoid deficiency, prevent toxicity
 10. Strategies to decrease or eliminate caffeine or alcohol use
 11. Use of complementary/alternative therapies
 12. Medical nutrition supplement needs, enteral or parenteral nutrition to provide appropriate nutrition
 13. Rationale and benefits of appetite stimulants (if applicable)
 14. Food and water safety and sanitation

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15. Psychosocial issues, as appropriate
16. Referral to resources available for smoking cessation and substance/drug abuse
17. Rationale and how to record food/fluid record and its importance in treatment
18. Referral to appropriate community resources available for social support, mental health counseling, economic assistance or other health care providers

Intervention: Level of Care 4 (Palliative)

- A. Provide self-management training based on wishes of client, client's family or caregivers.
 1. Supportive medical nutrition therapy measures, e.g., oral supplements to optimize oral intake and nutrition health
 2. Modified therapeutic meal prescription to meet individual food tolerances and needs
 3. Strategies to minimize symptoms associated with conditions/infections
 4. Strategies to maintain hydration status
 5. Nutrition support, e.g., tube feeding or parenteral nutrition as needed
 6. Guidance for use of alternative or complementary therapies
- B. Provide self-management training and materials as appropriate to level of care.
 1. Review education materials containing information on
 - ❖ Individualized therapeutic meal prescription
 - ❖ Goals of therapy
 - ❖ Changes in biochemical parameters
 - ❖ Symptom management
 - ❖ Changes in medications
 - ❖ Meal and medication schedule
 - ❖ Potential food/drug interactions
 - ❖ Avoidance of vitamin and mineral deficiencies and/or toxicities
 - ❖ Food, fluid, and activity records
 - ❖ Food and water safety and sanitation practices
 - ❖ Strategies to decrease or eliminate alcohol and caffeine use
 - ❖ Evaluation of complementary or alternative therapies
 - ❖ Need for alternative route of feeding
 - ❖ Resistance weight training and aerobic exercise pattern
 - ❖ Community resources for food security and other needs
 2. Outcome Measurements
 - ❖ Weight, BMI, LBM (measured by TSF, MAMC) or BCM (measured by BIA), waist-to-hip ratio, neck circumference
 - ❖ Biochemical parameters
 - ❖ Clinical symptoms
 - ❖ MNT goals and behavioral compliance (e.g., estimated nutrient requirements)

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compared to estimated nutrient intake)

- ❖ Takes measures to ensure safe water and food consumption
- ❖ Verbalizes meal, meal schedule, and potential food/drug interaction
- ❖ Functional status, e.g., ADLs or IADLs or Karnofsky performance scale
- ❖ Uses community resources as needed
- ❖ Wishes of client or client's family or caregiver regarding nutrition support (Level of Care 4)

3. Document on Initial Assessment Form and Nutrition Progress Notes

C. Follow up.

1. Schedule appointment as determined by protocol and level of care

2. Expected Outcomes

- ❖ Maintains or improves weight status, BMI, preserves LBM and BCM
- ❖ Maintains or improves biochemical parameters, prevents vitamin/mineral deficiencies
- ❖ Side effects and symptoms are minimized or eliminated.
- ❖ Nutrient intake is maintained or improved
- ❖ Meets goal(s) set with dietitian
- ❖ No occurrences of food or water-borne illnesses
- ❖ Adheres to meal and medication schedule
- ❖ Functional or performance status maintained or improved
- ❖ Uses community resources
- ❖ Alternative feeding route implemented as needed
- ❖ Wishes of client or client's family or caregiver are upheld regarding continuation/cessation of nutrition support (Level of Care 4)

Communication

1. Instruct client to call with questions/concerns
2. Send copy of Initial Assessment and Nutrition Progress Notes to referral source and place original in client's medical record as appropriate
3. Schedule next appointment based on assessment and level of care
4. Call client 24-48 hours prior to next appointment

ALGORITHMS FOR NUTRITIONAL CARE

HIV/AIDS Levels of Care 1-4 Medical Nutrition Therapy Protocol

Session/length: #2 for 15-30 minutes

Session Process

Assessment

Clinical data collected:

- ❖ Medical status and current diagnosis
- ❖ Current weight and % change over time, BMI, LBM, and/or BCM
- ❖ Signs and symptoms: anorexia, early satiety/diarrhea, nausea/vomiting, maldigestion, flatulence, dysphagia, bowel habits, shortness of breath, fatigue, fever/sweats, pain, and % change over time
- ❖ Food and fluid record kept by client
- ❖ Biochemical values, as available
- ❖ Medication: prescription, nonprescription, recreational use (dose, frequency, timing)
- ❖ Current exercise and activity pattern
- ❖ Primary feeding route (oral, tube-feeding, parenteral)
- ❖ Alternative or complementary therapies used or being considered

Outcome Measurements (change in client's)

- ❖ Weight, BMI, and LBM, BCM (if applicable)
- ❖ Food and fluid record
- ❖ Adherence to therapeutic meal prescription
- ❖ Biochemical values
- ❖ Medication: prescription, nonprescription, recreational use (dose, frequency/timing)
- ❖ Exercise/activity pattern or evaluation of ADLs, IADLs, performance (Karnofsky scale)
- ❖ Caffeine, alcohol, and smoking pattern
- ❖ Changes in HIV symptoms

Intervention

A. Adjust goals/nutrition prescription.

Note: For Level of Care 4, intervention will be based on client's or client's family's or caregiver's wishes and needs.

1. Review records, evaluate client's adherence and understanding, and provide feedback on
 - ❖ Maintaining or increasing body weight and LBM
 - ❖ Therapeutic meal prescription
 - ❖ HIV/AIDS symptom management
 - ❖ Meal/medication scheduling

ALGORITHMS FOR NUTRITIONAL CARE

- ❖ Potential food/drug interaction
- ❖ Vitamin or mineral supplementation, as needed
- ❖ Exercise or functional status, e.g. ADLs or IADLs performance scale
- ❖ Caffeine and alcohol pattern, recreational drug use
- ❖ Use of complementary or alternative therapies
- ❖ Medical nutrition therapy supplements, enteral or parenteral regimen (if applicable)
- ❖ Need for appetite stimulants (if applicable)
- ❖ Food and water safety and sanitation
- ❖ Psychosocial issues as appropriate

B. Provide self-management training and materials, as appropriate to level of care.

1. Review education materials and concepts containing information on:

- ❖ Individualized therapeutic meal prescription
- ❖ Changes in biochemical parameters
- ❖ Changes in medication
- ❖ Meal/medication schedule
- ❖ Potential food/drug interaction
- ❖ Avoiding vitamin and mineral deficiencies or toxicities
- ❖ Food, fluid, and activity record
- ❖ Strategies to optimize nutrient and fluid intake
- ❖ Food and water safety and sanitation practices
- ❖ Strategies to decrease or eliminate alcohol and caffeine use
- ❖ Evaluation of complementary or alternative therapies
- ❖ Need for alternative route of feeding or medical nutrition supplements
- ❖ Resistance weight training and aerobic exercise pattern
- ❖ Community resources for food security and other needs

2. Expected Outcomes:

- ❖ Meets goal(s) set with Registered Dietitian or other nutrition professional
- ❖ Takes steps to alleviate HIV-related symptoms
- ❖ Completes food, fluid, and activity records
- ❖ Maintains weight and nutritional status by changing dietary intake as needed
- ❖ Takes measures to ensure safe food and water consumption
- ❖ Manages weight and preserves LBM and BCM
- ❖ Replenishes or preserves nutritional parameters
- ❖ Verbalizes meal/medication schedule or potential food/drug interaction.
- ❖ Improves or maintains functional status

3. Document on Nutrition Progress Notes

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C. Follow up.

Based on level of care, 2 to 6 months (or 2 to 6 times a year)

Communication

1. Instruct client to call with questions/concerns
2. Send copy of Nutrition Progress Notes to referral source and place original in client's medical record
3. Call client 24-48 hours prior to next appointment.

ALGORITHMS FOR NUTRITIONAL CARE

HIV/AIDS Levels of Care 1-4 Medical Nutrition Therapy Protocol

Session/length: #3 for 15-30 minutes

Session Process

Assessment

Clinical data collected.

- ❖ Medical status and current diagnosis
- ❖ Current weight and % change over time, BMI, LBM, and/or BCM, waist-to-hip ratio, neck circumference
- ❖ Signs and symptoms: anorexia, early satiety, diarrhea, nausea/vomiting, maldigestion, flatulence, dysphagia, bowel habits, shortness of breath, fatigue, fever/sweats, pain, and % change over time
- ❖ Food, fluid, and activity records kept by client
- ❖ Biochemical values, as available
- ❖ Medication: prescription, nonprescription, recreational use (dose, frequency/timing)
- ❖ Current exercise and activity pattern
- ❖ Primary feeding route (oral, tube feeding, parenteral)
- ❖ Alternative or complementary therapies used or being considered

Outcome Measurements: change in client's

- ❖ Weight, BMI, and LBM, BCM (if applicable)
- ❖ Food and fluid record
- ❖ Adherence to therapeutic meal prescription
- ❖ Biochemical values
- ❖ Medication: prescription, nonprescription, recreational use (dose, frequency, timing)
- ❖ Exercise/activity pattern or evaluation of ADLs, IADLs
- ❖ Caffeine, alcohol, and smoking pattern
- ❖ Changes in HIV symptoms

Intervention

A. Adjust goals/nutrition prescription.

Note: For Level of Care 4, intervention will be based on client's or client's family's or caregiver's wishes and needs.

1. Review records, evaluate client's adherence and understanding, and provide feedback on:

- ❖ Maintaining or increasing body weight and LBM

ALGORITHMS FOR NUTRITIONAL CARE

- ❖ Therapeutic meal prescription
- ❖ HIV/AIDS symptom management
- ❖ Meal/medication scheduling
- ❖ Potential food/drug interaction
- ❖ Vitamin or mineral supplementation, as needed
- ❖ Exercise or functional status, e.g., ADLs or IADLs
- ❖ Caffeine and alcohol pattern, recreational drug use
- ❖ Use of complementary or alternative therapies
- ❖ Medical nutrition therapy supplements, enteral or parenteral regimen (if applicable)
- ❖ Need for appetite stimulants (if applicable)
- ❖ Food and water safety and sanitation
- ❖ Psychosocial issues as appropriate

B. Provide self-management training and materials, as appropriate to level of care.

- ❖ Individualized therapeutic meal prescription
- ❖ Changes in biochemical parameters
- ❖ Changes in medication
- ❖ Meal/medication schedule
- ❖ Potential food/drug interaction
- ❖ Avoiding vitamin and mineral deficiencies or toxicities
- ❖ Food, fluid, and activity records
- ❖ Strategies to optimize nutrient and fluid intake
- ❖ Food and water safety and sanitation practices
- ❖ Strategies to decrease or eliminate alcohol and caffeine use
- ❖ Evaluation of complementary or alternative therapies
- ❖ Need for alternative route of feeding or medical nutrition therapy supplements
- ❖ Resistance weight training and aerobic exercise pattern
- ❖ Community resources for food security and other needs

1. Expected Outcomes:

- ❖ Meets goal(s) set with Registered Dietitian or other nutrition professional
- ❖ Takes steps to alleviate HIV-related symptoms
- ❖ Completes food, fluid, and activity record
- ❖ Maintains weight and nutritional status by changing dietary intake as needed
- ❖ Takes measures to ensure safe food and water consumption
- ❖ Manages weight and preserves LBM and BCM
- ❖ Replenishes or preserves nutritional parameters and nutritional status level
- ❖ Verbalizes meal/medication schedule or potential food/drug interaction
- ❖ Improves or maintains functional status

2. Document on Nutrition Progress Notes

ALGORITHMS FOR NUTRITIONAL CARE

C. Follow up.

Based on level of care, 2 to 6 months (or 2 to 6 times a year)

Communication

1. Instruct client to call with questions and concerns
2. Send copy of Nutrition Progress Notes to referral source and place original in client's medical record
3. Call client 24-48 hours prior to next appointment

ALGORITHMS FOR NUTRITIONAL CARE

NUTRITION PROGRESS NOTES

HIV/AIDS Level of Care 1 2 3 4

Other Diagnosis: _____

Progress Toward Goals:

1-Goals reached 3 -No progress

2-Progress made toward goals

Client's Name: _____

Medical Record #: _____

DOB: _____ Gender: _____

Ethnic Background (Optional): _____

Phone Number: _____

Referring Physician: _____

Outcomes of Medical Nutrition Therapy (MNT)

Expected Outcome	Intervention provided to meet goal (Intervention = self-management training plus client verbalizes/demonstrates)			Goal reached (✓ indicates goal reached)			
	Session	1 (60 min)	2 (30 min)	3 (30 min)	Date: 1	Date: 2	Date: 3
Clinical Outcomes							
Albumin (g/dL)				Value	Value	Value	
Prealbumin (mg/dL)				_____	_____	_____	
HgB (g/dL)				_____	_____	_____	
Hct (vol %)				_____	_____	_____	
Cholesterol (mg/dL)				_____	_____	_____	
Triglycerides (mg/dL)				_____	_____	_____	
BUN (mg/dL)				_____	_____	_____	
Creatinine (mg/dL)				_____	_____	_____	
CD4				_____	_____	_____	
Viral load (copies HIV RNA/mL)				_____	_____	_____	
CD8				_____	_____	_____	
Glucose (mg/dL)				_____	_____	_____	
Other labs:				_____	_____	_____	
Height _____ Weight (lb)				_____	_____	_____	
BMI				_____	_____	_____	
Lean body mass (LBM)				_____	_____	_____	
Waist-to-hip ratio/neck circumference				_____	_____	_____	
MNT Goal							
• _____ kcal _____ g protein				_____ kcal	_____ kcal	_____ kcal	
• _____ g fat				_____ g Pro	_____ g Pro	_____ g Pro	
• _____ cups of fluid/day				_____ g Fat	_____ g Fat	_____ g Fat	
• _____ meals _____ snacks				_____ cups	_____ cups	_____ cups	
				_____ meals	_____ meals	_____ meals	
				_____ snacks	_____ snacks	_____ snacks	
Functional Outcomes							
ADLs/IADLs (↑ or ↓ or maintains)				_____	_____	_____	
Karnofsky performance scale				_____	_____	_____	
Behavioral Outcomes*							
• Maintains hydration and nutrient intake				_____	_____	_____	
• Prevents food-/water-borne illnesses				_____	_____	_____	
• Follows therapeutic meal prescription				_____	_____	_____	
• Consumes adequate nutrient intake				_____	_____	_____	
• Understands alternative feeding routes				_____	_____	_____	
• Consumes/avoids/times foods that optimize drug therapy regimen				_____	_____	_____	
• Uses appropriate nutrition therapies				_____	_____	_____	
• ↓ or stops smoking/alcohol				_____ ppd	_____ ppd	_____ ppd	
• Participates in resistance and aerobic exercise > 3-5 x/wk				_____ x/wk	_____ x/wk	_____ x/wk	
• Verbalizes potential food/drug interaction				_____	_____	_____	
Drugs:				_____ dose	_____ dose	_____ dose	
_____				_____ dose	_____ dose	_____ dose	
_____				_____ dose	_____ dose	_____ dose	
Overall Compliance Potential*							
• Comprehension				E G P	E G P	E G P	
• Receptivity				E G P	E G P	E G P	
• Adherence				E G P	E G P	E G P	

Intervention: D Discussed, R Reinforced/Reviewed, ≠ Not reviewed, ✓ Outcome achieved, N/A Not applicable.

*Compliance Potential: E Excellent, G Good, P Poor

See Back for Comments.

ALGORITHMS FOR NUTRITIONAL CARE

Date: _____

Comments: _____

Client Goals: _____

Material Provided: _____

Next Visit: _____ RD
Signature/Date

Date: _____

Comments: _____

Client Goals: _____

Material Provided: _____

Next Visit: _____ RD
Signature/Date

Date: _____

Comments: _____

Client Goals: _____

Material Provided: _____

Next Visit: _____ RD
Signature/Date

ALGORITHMS FOR NUTRITIONAL CARE

Bibliography

Abrams B, Duncan D, Herz-Picciotto I. A prospective study of dietary intake and acquired immune deficiency syndrome in HIV-seropositive homosexual men. *J Acquir Immune Defic Syndr*. 1993;6:949-958.

Bahl SM, Hickson JF. *Nutritional Care for HIV-Positive Persons: A Manual for Individuals and Their Caregivers*. Boca Raton, Fla: CRC Press; 1995.

Beal JA, Martin BM. The clinical management of wasting and malnutrition in HIV/AIDS. *AIDS Patient Care*. 1995;9(2):66-74.

Calloway CW, Whitney C. *Surviving with AIDS: A Comprehensive Program of Nutritional Co-therapy*. Boston: Little, Brown; 1991.

Coodley GO, Loveless MO, Merrill TM. The HIV wasting syndrome: a review. *J Acquir Immune Defic Syndr*. 1994;7:681-694.

Field-Gardner C. Position of The American Dietetic Association and The Canadian Dietetic Association: nutrition intervention in the care of persons with human immunodeficiency virus infection. *J Am Diet Assoc*. 1994;94(9):1042-1045.

Field-Gardner C, Thomson CA, Rhodes S, eds. *A Clinician's Guide to Nutrition in HIV and AIDS*. Chicago: The American Dietetic Association; 1997.

Karnofsky DA. Meaningful clinical classification of therapeutic responses to anticancer drugs. *Clin Pharm Therap*. 1961;2:709-712. Editorial.

Kotler DP. Wasting syndrome: nutritional support in HIV infection. *AIDS Res Hum Retroviruses*. 1994;10(8):931-934.

Kotler DP, Tierney AR, Wang J, Pierson RN. Magnitude of body cell mass depletion and the timing of death from wasting in AIDS. *Am J Clin Nutr*. 1989;50:444-447.

Macallan DC, Noble C, Baldwin C, Jebb SA, Prentice AM, Coward WA, Sawyer MB, McManus TJ, Griffin GE. Energy expenditure and wasting in human immunodeficiency virus infection. *N Engl J Med*. 1995;333:83-88.

ALGORITHMS FOR NUTRITIONAL CARE

Bibliography

Proceedings of the 1992 International Symposium on Nutrition and HIV/AIDS, Including the Nutrition Algorithm and Nutrition Initiative of the Physicians Association for AIDS Care. Chicago: Physicians Association for AIDS Care; 1992.

Romeyn M. Nutrition and HIV: A New Model for Treatment. San Francisco: Josey-Bass; 1995.

Schreiner JE. Nutrition Handbook for AIDS. 2nd ed. Denver: Carrot Top Nutrition Resources; 1990.

Tang AM, Graham NMH, Kirby AJ, McCall LD, Willett WC, Saah AJ. Dietary micronutrient intake and risk of progression to acquired immunodeficiency syndrome (AIDS) in human immunodeficiency virus type 1 (HIV-1)-infected homosexual men. *Am J Epidemiol.* 1993;138:937-951.

Voelker R. Debating dual AIDS guidelines. *JAMA.* 1997;278(8):613-614.

Watson RR, ed. Nutrition and AIDS. Boca Raton, Fla: CRC Press; 1994.

Walsek C, Zafonte M, Bowers JM. Nutritional issues and HIV/AIDS: assessment and treatment strategies. *J Assoc. Nurses AIDS Care.* 1997;8(6):71-80.

Wheeler D, Muurahainen N, Elison R, Launer C, Gilbert C, Bartsch G. Change in body weight as a predictor of death and opportunistic complications (OC) in HIV by history of prior OC. *Int Conf AIDS.* 1996;11:332. Abstract TuB 2383.

Young JS. HIV and medical nutrition therapy. *J Am Diet Assoc.* 1997;97(suppl 2):161S-166S.

ALGORITHMS FOR NUTRITIONAL CARE

HIV/AIDS CHILDREN/ADOLESCENTS

Medical Nutrition Therapy Protocol

Setting: Ambulatory Care or adapted for other health care settings (0-18 years old)

Number of sessions: Minimum 5; will vary with category level.

No. of interventions	Length of contact	Time between interventions	Cost/charge
Category N and A 1-4 F/U sessions/yr	60 minutes initial 30-60 minutes F/U session	Based on assessment and/or category of care	
Category B 4-12 sessions/yr	60 minutes initial 30-60 minutes F/U session	Based on assessment and/or category of care	
Category C 6-12 sessions/yr	30-60 minutes initial 30-60 minutes F/U session	Based on assessment and/or category of care	

Expected Outcomes of Medical Nutrition Therapy

Outcome assessment factors	Base-line		Evaluation of Intervention					Expected outcome	Ideal/goal value
	Intervention								
	1	2	3	4	5				
Clinical									
<ul style="list-style-type: none"> Biochemical parameters Albumin, prealbumin, transferrin CD4, CD8, viral load Hgb, hematocrit Cholesterol, triglycerides 	✓	✓	✓	✓	✓	✓	Stay within normal limits	Albumin: >3.5 g/dL Prealbumin: 9-22 mg/dL (0-6 mo) 11-29 mg/dL (6 mo-6 yr), 15-37 mg/dL (6-16 yr) Viral load: undetectable CD4: 1.0-1.8 ³ (30-40%) 1-6 yr 0.7-1.1 (33-41%) 7-17 yr CD8: 8-1.5 ³ (25-35%) 1-6 yr 6-9 (27-35%) 7-17 yr Hgb, hematocrit, transferrin and triglyceride based on age Cholesterol 65-170 mg/dL ≥50% tile based on NCHS ¹ growth grids or preserve growth BMI 50%tile for age, gender Head circumference >5%tile Maintain lean body mass Stabilize or prevent symptoms of HIV/AIDS	
<ul style="list-style-type: none"> Anthropometrics Weight, height, BMI %tile (11-17 yr) <3 yr: head circumference, height/length, weight/length Body composition (0-17 yr) Clinical signs and symptoms Diarrhea or malabsorption Nausea/vomiting Dysphagia 	✓	✓	✓	✓	✓	✓	Meet growth velocity goals ¹ Maintain/improve lean body mass (LBM) and fat stores based on age and gender ²	Prevent dehydration, minimize severity of infection and side effects of treatment: diarrhea, nausea/vomiting, dysphagia	
Functional									
<ul style="list-style-type: none"> Social development skills 	✓	✓	✓	✓	✓	✓	Maintain nutritional health to maintain functional skills for age and developmental level	Intake adequate to maintain functional skills for age and developmental level	
Behavioral*									
<ul style="list-style-type: none"> Oral intake adequate for expected growth and development Utilizes nutrient-dense foods, supplements, and modular additives as needed Employs food and water safety and sanitation practices Includes/avoids foods based on side effects of medication or symptoms of infection Communicates use of alternative nutrition therapies to RD as appropriate Physical activity (play) 	✓	✓	✓	✓	✓	✓	<ul style="list-style-type: none"> Growth grids 50-95%tile per NCHS¹ standards, maintains LBM Verbalizes need for oral supplements or tube feeding or parenteral nutrition when necessary Prevents food- and water-borne illness Minimizes side effects from meds and/or symptoms of infection Avoids vitamin/mineral deficiencies or toxicity, prevents megadosing with unproven nutritional therapies Participates in regular physical activity appropriate for age and development 	MNT Goals <ul style="list-style-type: none"> Calories and protein to maintain growth velocity and LBM Fluid intake adequate to maintain hydration status Remain free of food and water illness Meal plan timing and foods to optimize drug therapy effectiveness Maintain adequate vitamin/mineral intake 	

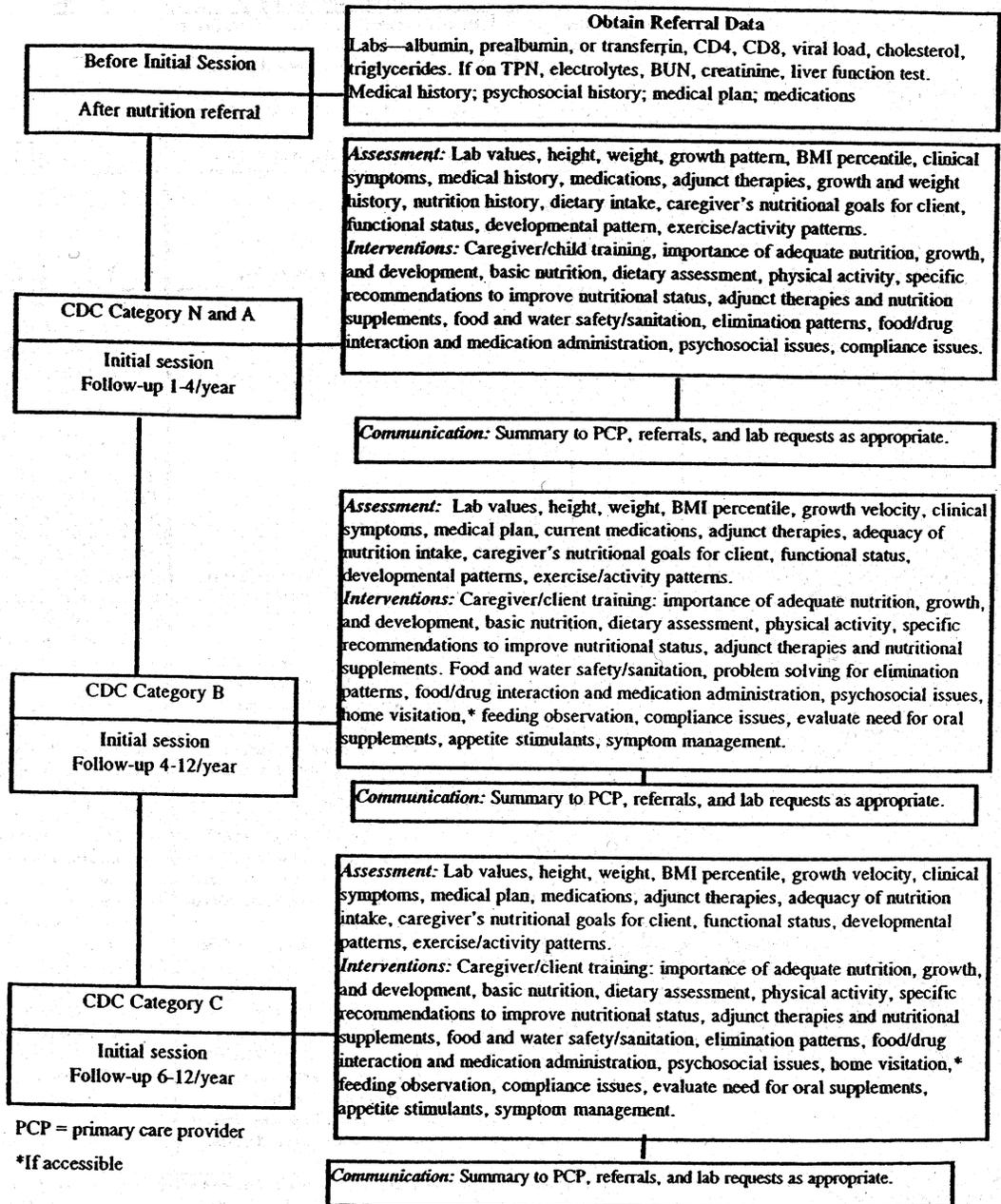
National Center for Health Statistics Standards. ¹Frisancho AR. New norms of upper limb fat and muscle are for assessment of nutrition status. *Am J Clin Nutr.* 1981;34:2540-2545. ²Reflect 10³. *Session in which behavioral topics are covered may vary according to client's readiness, skills, resources, and need for lifestyle change.

Medical Nutrition Therapy Across the Continuum of Care

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Developed by ADA and Morrison Health Care.

ALGORITHMS FOR NUTRITIONAL CARE

HIV/AIDS CHILDREN/ADOLESCENTS Medical Nutrition Therapy Protocol



ALGORITHMS FOR NUTRITIONAL CARE

HIV/AIDS CDC Categories N, A, B, C Medical Nutrition Therapy Protocol

Session/length: #1 for 60 minutes

Session Process

Refer to Section II MNT Protocols for Implementation Guidelines

Assessment

A. Obtain clinical data.

1. *Laboratory values with dates* (within 15 days of session): albumin, prealbumin or transferrin, hemoglobin, hematocrit, CD4, CD8 or viral load, cholesterol, triglycerides; if on TPN, in addition obtain electrolytes, BUN, creatinine, liver function test (e.g., SGOT, SGPT)
2. *Medical goals for client*
3. *Clinical symptoms:* fevers, anorexia, early satiety, abnormal bowel habits, e.g., diarrhea (check tests indicating malabsorption), dysphagia, reflux, nausea, vomiting, flatulence, oral and/or esophageal lesions or dysfunction
4. *Growth and weight history:* usual weight, previous weights and growth pattern per growth grids, previous measures of lean body mass (LBM), e.g., skinfold measures [triceps skinfold (TSF) and midarm circumference (MAC)], or body cell mass (BCM) using bioelectrical impedance (BIA)
5. *Medical history:* renal, liver, neurological, gastrointestinal, pancreatic, or cardiac involvement; dental and oral health; if less than 3 years of age, obtain prenatal and birth history if available
6. *All medications:* dose, frequency, and timing, prescribed and self-prescribed, e.g., reverse transcriptase inhibitors, nonnucleoside inhibitors, protease inhibitors, antifungal, antibacterial, and antiprotozoal agents
7. *Primary feeding route:* oral, tube-feeding, parenteral, or combination
8. *Functional status:* developmental eating, dressing, bathing, toileting skills, and social developmental skills

B. Interview client and/or primary caregiver.

1. *Clinical data:* current height/weight, length for height, weight for length, head circumference (<3 years), calculate BMI and plot on appropriate NCHS growth curves; % ideal and usual weight. If applicable, measure body composition such as skinfold measurements, MAC (midarm circumference), TSF (triceps skinfold thickness), AMA (arm muscle area), bioelectrical impedance (BIA) to estimate LBM or BCM, or dual x-ray absorptiometry
2. Caregiver's nutrition goals for client/attitude about current weight

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3. *Nutrition history*: review food intake records if available, usual food intake with attention to calories, fat, protein, fluid, and fiber content, developmental feeding patterns, use of vitamin/mineral/herb supplement(s), over-the-counter drugs, food and water safety and sanitation practices, food allergies, food intolerances
4. *Use of alternative unproven therapies*, e.g., vitamin and mineral megadosing, herbs, bacterial supplements, and amino acids supplements
5. *Exercise pattern*: type of activity, frequency, and duration
6. *Psychosocial and economic issues*: living situation, cooking facilities, meal locations (e.g., school, day care, home), family support, other caregivers, ethnic or religious belief considerations (related to nutrition), parent/caregiver perception of eating habits, health of other family members, financial constraints, participation in food assistance programs
7. *Knowledge/readiness to learn* basic nutrition principles, attitude

Intervention: CDC Categories N and A, Mild Signs and Symptoms

- A. Provide self-management training depending on clinical, developmental, and psychosocial circumstances of client/caregiver.
 1. Discuss importance of adequate nutrition to enhance immune function and maintain good nutritional status
 2. Discuss importance of nutrition in supporting growth and development
 3. Plan and schedule meals to enhance drug effectiveness
 4. Determine potential food/drug interaction, medication, and meal timing
 5. Basic nutrition
 - ❖ Nutrient-dense foods
 - ❖ Increasing food variety
 - ❖ Adequate calories and protein for growth
 - ❖ Food preparation
 6. Oral health: caries risk reduction
 7. Negotiate specific dietary changes to improve nutritional status, e.g., increasing frequency of nutrient-dense meals/snacks, promoting feeding skill development, meal planning, goal setting
 8. Determine necessary supplement recommendations including specific vitamin/minerals, high-calorie food additives/modules, modified and calorie-enhanced formulas/beverages
 9. Discuss importance of regular physical activity
 10. Evaluate unproven nutrition treatments including diets, herbal preparations, vitamin megadoses, and rationale for avoiding harmful therapies
 11. Evaluate alternative feeding route, e.g., tube feeding or parenteral nutrition to provide appropriate nutrition

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12. Ensure food and water safety and sanitation. Include information on water supply for *Cryptosporidium*, *Giardia*, etc, to minimize risk of food-borne infection
13. Provide suggestions to improve reflux, vomiting, and elimination patterns as necessary
14. Develop strategies with family regarding psychosocial issues related to nutritional status, e.g., mealtime behavior, food access
15. Discuss current resources available to the client and family and facilitate in the enrollment in additional necessary services

Intervention (in addition to 1-15): CDC Categories B and C, Moderate Signs and Symptoms

- A. Provide self-management training depending on the clinical, developmental, and psychosocial circumstances of the client/caregiver.
 1. Perform feeding observation
 2. Provide feedback to caregiver regarding client's growth status and dietary intake
 3. Develop strategies to enhance caregiver's compliance/understanding
 4. Develop strategies to enhance client's compliance
 5. Discuss lab values with caregiver if values warrant attention
 6. Recommend and facilitate acquisition of supplements as needed
 7. Review rationale and benefits of appetite stimulants as appropriate
 8. Discuss symptom management as appropriate:
 - ❖ Oral and esophageal lesions
 - ❖ Diarrhea
 - ❖ Vomiting or reflux
 - ❖ Organ system involvement, e.g., cardiomyopathy, nephropathy, encephalopathy
 - ❖ Opportunistic infections, e.g., avium complex, others affecting GI tract
 - ❖ Failure to thrive and wasting syndrome
 - ❖ Refer to additional resources if necessary
- B. Provide self-management training and material based on individual client/caregiver needs.
 1. Goals of nutrition therapy
 2. Review education materials containing information on:
 - ❖ Food Pyramid or other healthy eating guidelines
 - ❖ High-calorie, high-protein foods including cooking methods and recipe modification
 - ❖ Food and water safety
 - ❖ Alternative feeding routes (e.g., tube feeding or parenteral support)
 - ❖ Food, fluid, fiber intake record and activity record
 - ❖ Potential food/drug interaction
 - ❖ Developmentally appropriate food textures and choking prevention
 - ❖ Techniques for mealtime management
 - ❖ Avoiding vitamin/mineral deficiencies/toxicity

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- ❖ Community resources for food security and other needs
3. Outcome Measurements:
 - ❖ Weight, growth velocity, head circumference (<3 years), BMI %tile
 - ❖ LBM (measured byTSF, MAC, AMA) or BCM (measured by BIA)
 - ❖ Albumin and/or prealbumin, other labs as necessary
 - ❖ Clinical symptoms, e.g., frequency of diarrhea
 - ❖ Nutritional status level
 - ❖ MNT goals and behavioral compliance
 - ❖ Takes measures to ensure safe water and food consumption.
 - ❖ Verbalizes potential food/drug interaction
 - ❖ Functional status and developmental level
 - ❖ Access to community resources
 - ❖ Need for alternative feeding route
 4. Document on Initial Assessment Form and Nutrition Progress Notes

C. Follow up.

1. Schedule appointment as determined by protocol and category of care
2. Expected Outcomes:
 - ❖ Maintains or improves age- and gender-appropriate weight status, growth velocity, BMI or other growth parameters
 - ❖ Preserves LBM and BCM, growth velocity
 - ❖ Maintains visceral protein status, prevents vitamin/mineral deficiencies
 - ❖ Side effects and symptoms minimized or eliminated
 - ❖ Nutritional status level maintained or improved
 - ❖ Meets goal(s) set with dietitian, e.g., increasing nutrient density of diet, developing safe-cooking skills, supplementing with vitamins/minerals, developing feeding skills
 - ❖ No occurrence of food- or water-borne illnesses
 - ❖ No evidence of food/drug interaction or food impacting medication absorption
 - ❖ Engages in safe, fun physical activity
 - ❖ Functional and self-development skills maintained or improved
 - ❖ Progresses towards enrollment with available resources
 - ❖ Alternative feeding route (e.g., tube feeding) implemented if needed

Communication

1. Instruct client and/or caregiver to call with questions/concerns
2. Send copy of Initial Assessment and Nutrition Progress Notes to referral source and place original in client's medical record
3. Schedule next appointment based on assessment and category of care
4. Call client 24-48 hours prior to next appointment or per clinic protocol

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HIV/AIDS CDC Categories N, A, B, C Medical Nutrition Therapy Protocol

Session/length: #2-5 for 30-60 minutes

Session Process

Assessment

Clinical data collected:

- ❖ Current weight, height, length for height, weight for length, head circumference (<3 years), % weight change over time, BMI percentile
- ❖ LBM or BCM, if applicable
- ❖ Food record kept by client and/or caregiver
- ❖ Laboratory values as available
- ❖ Clinical symptoms: fevers, early satiety, bowel habits (check for malabsorption if applicable), appetite status, dysphagia, reflux, nausea, vomiting, flatulence, mental status changes, oral and/or esophageal lesions or dysfunction
- ❖ Current medication (dose, frequency, timing)
- ❖ Current exercise or activity pattern
- ❖ Medical status
- ❖ Primary feeding route (oral, tube feeding, parenteral)
- ❖ Unproven therapies used or being considered

Outcome Measurements: change in client's

- ❖ Weight, height, or length, head circumference (<3 years), BMI percentile, growth velocity
- ❖ Skinfold measures (e.g., TSF, MAC), LBM, BCM (if applicable)
- ❖ Food record (e.g., calories, protein, fluid, fiber)
- ❖ Tolerance of feeding regimen
- ❖ Laboratory values
- ❖ Medication (dose, frequency, timing)
- ❖ Exercise/activity pattern or ADLs (e.g., bathing, toileting)
- ❖ Feeding skills and social development
- ❖ HIV symptoms

Intervention

A. Adjust goals/nutrition prescription.

1. Review records, evaluate client's and/or caregiver's adherence and understanding, and provide feedback on:

- ❖ Food/meal plan: calories, protein, fiber, fat, fluid, micronutrients

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- ❖ Client's growth status and dietary intake
- ❖ Feeding observation (CDC Categories B and C)
- ❖ Timing and content of meals associated with drug therapy
- ❖ Exercise/ADLs and developmental status
- ❖ Age-appropriate feeding skills
- ❖ Symptom management
- ❖ Tube feeding or parenteral regimen (if applicable)

B. Provide self-management training and material as appropriate to category of care.

1. Review education materials containing information on:

- ❖ Change in Client's status: weight, BMI percentile, growth velocity, and laboratory values
- ❖ Importance of adequate nutrition to maintain good nutritional status
- ❖ Strategies to ensure adequate eating habits, e.g., 6-9 minimeals/day food variety, concentrated protein sources, concentrated calorie sources, adequate fluid consumption, promotion of feeding skill development, meal planning, goal setting
- ❖ Developmentally appropriate food textures and choking prevention
- ❖ Techniques for mealtime management
- ❖ Rationale and benefits of appetite stimulants (if applicable)
- ❖ Potential food/drug interaction
- ❖ Eating pattern to reduce side effects from infection and medications
- ❖ Symptom management, e.g., improve reflux, vomiting, and problems with elimination patterns
- ❖ Nutritional supplements as appropriate to prevent vitamin/mineral deficiencies, e.g., modular formulas
- ❖ Vitamin/mineral supplementation to avoid deficiencies/toxicity
- ❖ Alternative feeding routes, e.g., tube-feeding or TPN, as indicated
- ❖ Evaluation of unproven nutrition treatment, including diets, herbal preparations, vitamin megadoses
- ❖ Food preparation
- ❖ Food and water safety and sanitation: home, away from home
- ❖ Importance of routine physical activity
- ❖ Rationale and how to maintain food record and its importance in treatment
- ❖ Psychosocial issues, quality-of-life issues
- ❖ Food security and resources
- ❖ Referral to appropriate community resources or other health care provider

2. Expected Outcomes:

- ❖ Client meets goal(s) set with Registered Dietitian or other nutrition professional
- ❖ Client completes food records

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- ❖ Client maintains weight, growth velocity and nutritional status by changing dietary intake as needed
 - ❖ Client meets expected growth velocity and developmental level for age and gender
 - ❖ Client and/or caregiver takes steps to alleviate HIV-related symptoms
 - ❖ Client and/or caregiver takes measures to ensure safe food/water consumption
 - ❖ Client manages weight and preserves LBM and BCM
 - ❖ Client replenishes or preserves nutritional parameters and nutrition status level
 - ❖ Client and/or caregiver verbalizes potential food/drug interaction
 - ❖ Client improves functional status and overall quality of life
 - ❖ Client prevents or reverses HIV wasting syndrome
 - ❖ Client's social development is appropriate for age and gender
 - ❖ Client improves quality of life
4. Document on Nutrition Progress Notes

C. Follow up.

Based on CDC Category N, A, B, or C; every 1 to 3 months (or 4 to 12 times a year)

Communication

1. Instruct client and/or caregiver to call with questions/concerns
2. Send copy of Nutrition Progress Notes to referral source and place original in client's medical record
3. Call client 24-48 hours prior to next appointment or per clinic protocol

Adapted from: "Nutrition and HIV: A New Model for Treatment," Mary Romeyn, M.D., Jossey-Bass Publishers, San Francisco 1995.

ALGORITHMS FOR NUTRITIONAL CARE

NUTRITION PROGRESS NOTES

HIV/AIDS Children/Adolescents

Other Diagnosis: _____

Category CDC: N A B C

Client's Name: _____

Medical Record #: _____ Phone Number: _____

DOB: _____ Gender: _____

Ethnic Background (optional): _____

Referring Physician: _____

Registered Dietitian: _____

Outcomes of Medical Nutrition Therapy (MNT)

Expected outcome	Intervention provided to meet goal (Intervention = self-management training plus caregiver verbal/visual/demonstrates)			Goal reached (✓ indicates goal reached)			
	Date Session	Initial 60 min	F/U 30-60 min	F/U 30 min	Date: _____ 1	Date: _____ 2	Date: _____ 3
Clinical Outcomes <ul style="list-style-type: none"> Albumin g/dL Prealbumin or transferrin mg/dL HgB g/dL Hct% CD4 _____ / CD8 _____ Viral load _____ Cholesterol mg/dL Triglycerides mg/dL BUN mg/dL Creatinine mg/dL Other labs: _____ Anthropometrics <ul style="list-style-type: none"> Height inches or cm Weight (lb or kg) Height/length %tile (<3 yr) Weight/length %tile (<3 yr) Head circumference (cm) (<3 yr) Lean body mass (LBM) % Body mass index (BMI) %tile TSF (mm) %tile MAC (mm) / MAMC (mm) %tile Clinical Signs and Symptoms <ul style="list-style-type: none"> ↓ or no diarrhea ↓ or no nausea/vomiting 							
Functional Outcomes <ul style="list-style-type: none"> Developmentally appropriate feeding skills Developmentally appropriate activities of daily living (ADLs, eg, eating, dressing, bathing, toileting) Social development skills appropriate for age/gender 							
MNT Goal <ul style="list-style-type: none"> Maintain adequate intake of calories and protein _____ kilocalories _____ g Pro _____ meals _____ snacks 					kcal _____ g Pro _____ meals _____ snacks	kcal _____ g Pro _____ meals _____ snacks	kcal _____ g Pro _____ meals _____ snacks
Behavioral Outcomes <ul style="list-style-type: none"> Consumes adequate oral intake for growth and development Uses nutrient-dense foods, supplements, and modular ingredients appropriately Employs food/water safety and sanitation practices Includes/avoids foods to lessen side effects of medications or symptoms of infection Drug(s): _____ <ul style="list-style-type: none"> Supplements with appropriate doses of vitamins/minerals Participates in regular physical activity. Uses safe and appropriate nutrition therapies 							
Overall Compliance Potential* <ul style="list-style-type: none"> Comprehension Receptivity (Readiness) Adherence 		E G P	E G P	E G P			

Intervention: D Discussed, R Reinforced/Reviewed, ≠ Not reviewed, ✓ Outcome achieved, N/A Not applicable.

*Compliance Potential: E Excellent, G Good, P Poor.

See Back for Comments.

ALGORITHMS FOR NUTRITIONAL CARE

Date: _____

Comments: _____

Client Goals: _____

Material Provided: _____

Next Visit: _____ RD

Signature/Date

Date: _____

Comments: _____

Client Goals: _____

Material Provided: _____

Next Visit: _____ RD

Signature/Date

Date: _____

Comments: _____

Client Goals: _____

Material Provided: _____

Next Visit: _____ RD

Signature/Date

Date: _____

Comments: _____

Client Goals: _____

Material Provided: _____

Next Visit: _____ RD

Signature/Date

ALGORITHMS FOR NUTRITIONAL CARE

Bibliography

Arpadi SM, Wang J, Cuff PA, Thornto J, Horlick M, Kotler P, Pierson RN. Application of bioimpedance analysis for estimating body composition in prepubertal children infected with human immunodeficiency virus type 1. *J Pediatr*. 1996;129(5):755-757.

Bahl SM, Hickson JF. *Nutritional Care for HIV-Positive Persons: A Manual for Individuals and Their Caregivers*. Boca Raton, Fla: CRC Press; 1995.

Baum MK, Atienza ME, Shor-Posner G, Fletcher M, Morgan R, Eisdorfer C, Sauberlich HE, Cornwall PE, Beach RS. Association of vitamin B6 status with parameters of immune function in early HIV-1 infection. *J Acquir Immune Defic Syndr*. 1994;4:1122-1132.

Baum MK, Cassetti L, Bonvehi P, Shor-Posner G, Lu Y, Sauberlich H, Inadequate dietary intake and altered nutrition status in early HIV-1 infection. *Nutrition*. 1994;10(1):16-20.

Beach RS, Atienza ME, Shor-Posner G, Baum MK. Specific nutrient abnormalities in asymptomatic HIV-1 infection. *AIDS*. 1994;6:701-708.

Beach RS, Mantero-Atienza E, Van Riel F, Fordyce-Baum M. Potential implications of nutritional deficiencies in early HIV-1 infected patients. *Arch AIDS Res*. 1989;3:225.

Beisel WR. Single nutrients and immunity. *Am J Clin Nutr*. 1982;35(suppl):417S-468S.

Bell SJ, Forse RA. *Positive Nutrition for HIV Infection and AIDS*. Minneapolis: Chronimed Publishing; 1996.

Bentler M, Stanish M. Nutrition support of the pediatric patient with AIDS. *J Am Diet Assoc*. 1987;87(4):488-491.

Brigbord K, Willoughby A. Vitamin A and mother-to-child HIV-1 transmission. *Lancet*. 1994;343(8913):1585-1586.

Cappell MS, Godil A. A multicenter case-controlled study of percutaneous endoscopic gastrostomy in HIV-seropositive patients. *Am J Gastroenterol*. 1993;88(2):2059-2066.

Cerami A, Ikeda Y, Latrang N, Hotez PG, Beutler B. Weight loss associated with endotoxin-induced mediator from peritoneal macrophages: the role of cachectin (tumor necrosis factor). *Immunol Lett*. 1985;11:173-177.

ALGORITHMS FOR NUTRITIONAL CARE

Bibliography

Chandra RK. Nutrition and immunity: lessons from the past, new insights into the future. *Am J Clin Nutr.* 1991;53:1087-1101.

Chlebowski RT, Grovesnor MB, Berhard NH, Morales LS, Bulcavage LM. Nutritional status, gastrointestinal dysfunction, and survival in patients with AIDS. *Am J Gastroenterol.* 1989;84:1288-1293.

Cramp ME, Hing MC, Marriot DJ, Fruend J, Cooper DA. Bile acid malabsorption in HIV infected patients with chronic diarrhea. *Aust N Z J Med.* 1996;26(3):368-371.

Cunningham-Rundles S, Kim SH, Dnistrian A, Noroski L, Mendez-Botet C, Grasseby CB, Hinds G, Cervia JS. Micronutrient and cytokine interaction in congenital pediatric HIV infection. *J Nutr.* 1996;126:2674S-2679S.

Fields-Gardner C. Food-based nutrients as therapeutic options in HIV care. *BETA Magazine.* 1994:44-46.

Giacomet V, Ruga E, Rampon O, Cozzani S, Ciccone O, Orzali A. Central venous catheter in HIV-infected children receiving total parenteral nutrition for severe failure to thrive. *Int Conf AIDS.* 1996;11(2):293.

Gleason-Morgan D, Church JA, Bagnall-Reeb H, Atkinson J. Complications of central venous catheters in pediatric patients with acquired immunodeficiency syndrome. *J Nutr.* 1992;122:723-727.

Ikeogu MO, Wolf B, Mathe S. Pulmonary manifestations in HIV seropositivity and malnutrition in Zimbabwe. *Arch Dis Child.* 1997;76(2):124-128.

Italien Paediatric Intestinal/HIV Study Group. Intestinal malabsorption of HIV-infected children: relationship to diarrhea, failure to thrive, enteric microorganisms and immune impairment. *AIDS J Pediatr.* 1991;118:359-363.

Kawakami M, Cerami A. Studies of endotoxin-induced decrease in lipoprotein lipase activity. *J Exper Med.* 1981;154:631-639.

Kotler D. Nutritional effects and support in the patient with acquired immunodeficiency syndrome. *J Nutr.* 1992;122;723-727.

ALGORITHMS FOR NUTRITIONAL CARE

Bibliography

Kotler DP, Giang TT, Thiim M, Nataro JP, Sordillo EM, Orenstien JM. Chronic bacterial enteropathy in patients with AIDS. *J Infect Dis.* 1995;171:552-558.

Kotler DP, Tierney AR, Francisco A, Wang J, Pierson RN. The magnitude of body cell mass depletion determines the timing of death from wasting in AIDS. *Am J Clin Nutr.* 1989;50:444-447.

Kotler DP, Wang J, Pierson RN. Body composition studies in patients with the acquired immunodeficiency syndrome. *Am J Clin Nutr.* 1985;42:1255-1265.

Leung J. An approach to feeding HIV-infected infants and toddlers. *Top Clin Nutr.* 1989;4(4):27-37.

McKinney RE, Robertson WR. Duke Pediatric AIDS Clinical Trials Unit. Effect of human immunodeficiency virus on the growth of young children. *J Pediatr.* 1993;123:579-582.

Miller T. Malnutrition: metabolic changes in children, comparisons with adults. *J Nutr.* 1996;126:2623S-2631S.

Miller TL. Nutrition assessment and its clinical application in children infected with the human immunodeficiency virus. *J Pediatr.* 1996;129(5):633-636.

Miller TL, Evans S, Orav EJ, Morris V, McIntosh K, Winter HS. Growth and body composition in children with human immunodeficiency virus-1 infection. *Am J Clin Nutr.* 1993;57:588-592.

Miller TL, Orav EJ, Martin SR, Cooper ER, McIntosh K, Winter HS. Malnutrition and carbohydrate-malabsorption in children with vertically transmitted human immunodeficiency virus I infection. *Gastroenterology.* 1991;100:1296-1302.

Mugrditchian L, Arent-Fine J, Dwyer J. The nutrition of the HIV-infected child. Part I: A review of clinical issues and therapeutic strategies. *Top Clin Nutr.* 1992;7(2):1-10.

Oleske JM, Rothpletz-Puglia PM, Winter H. Historical perspectives on the evolution in understanding the importance of nutritional care in pediatric HIV. *J Nutr.* 1996;126:2616S-2619S.

ALGORITHMS FOR NUTRITIONAL CARE

Bibliography

Schanbelan M, Mulligan K, Grunfeld C, Daar ES, LaMarca A, Kotler DP, Wang J, Bozzette SA, Breitmeyer JB. Recombinant growth hormone in patients with HIV-associated wasting. *Ann Intern Med.* 1996;125(11):873-882.

Semba RD, Caiffa VT, Graham N, Cohn S, Vlahov D. Vitamin A deficiency and wasting as predictors of mortality in human immunodeficiency virus-infected injection drug users. *J Infect Dis.* 1995;171:1196-1202.

Slusarczyk R. The influence of human immunodeficiency virus on resting energy expenditure. *J Acquir Immune Defic Syndr.* 1994;7:1025-1027.

Steuerwald M, Bucher HC, Muller-Brand J, Gotze M, Roser HW, Gyr K. HIV enteropathy and bile acid malabsorption: response to cholestyramine. *Am J Gastroenterol.* 1995;90(11):2051-2053.

Tang AM, Chandra RJ, Saah AJ. Low serum vitamin B-12 concentrations are associated with faster immunodeficiency virus type-1 disease progression. *J Nutr.* 1997;127:345-353.

Winter HS, Chang TL. Nutrition in children with HIV infection. *Pediatric HIV Forum.* 1993;1(2):1-5.

Yolken RH, Hart W, Oung I, Shiff C, Greenson J, Perman JA. Gastrointestinal dysfunction and disaccharide intolerance in children infected with human immunodeficiency virus. *J Pediatr.* 1991;118:359-363.

Background Information

Complementary and Alternative Therapies with Information on How to Evaluate for AIDS Health Fraud

In general the philosophy behind complementary and alternative therapies (CAT) is to treat the body as a whole, and that the body and mind are inseparable and capable of self-repair. These may include herbs, massage, aromatherapy, etc.

It is important to have as much information as possible about these types of treatments before attempting to use them. It is vital that your primary care provider be aware and have the opportunity to discuss any other treatments that you are thinking about using.

Consider the source. For example, one in ten Internet sites dealing with gastrointestinal problems have been found to be “unproven or outright quackery.” Commercial sites selling products or therapies were found less reliable than sites run by the government, universities or medical centers. Today due to popular demand, more and more medical centers and health care payers have begun to offer some “alternative therapies.” This means that both patients and providers will learn more about what “alternative” treatments can and cannot do.

AIDS Health Fraud

AIDS health fraud is any false, misleading or unproven claim about the cure, treatment or prevention of HIV/AIDS.

AIDS fraud can be dangerous. Fraudulent products are not properly tested and may harm you, and they could even kill you. Fraudulent products waste your money, and health insurance usually doesn't pay for them.

If you use products or treatments that don't work, you may delay getting proper care and your illness may get worse. There are legitimate treatments that extend and improve the quality of life for people living with HIV/AIDS.

Many people with HIV/AIDS look for additions or alternatives to conventional medical treatment for their disease. Some of these treatments may help people with HIV, while others have no effects, or they are harmful. You need to be careful and go over any alternative treatments with your health care provider, pharmacist, or Registered Dietitian or Nutritionist to see if it is right for you. **BE AWARE!**

Background Information

Ask questions:

1. Safety: Is the product or treatment harmful?
2. Are there harmful drug-drug interactions with prescriptive and over-the-counter medications and/or nutrients?
3. Are unproven treatments being used, while delaying effective conventional treatment(s) and possibly missing important windows of opportunity?
4. Does the therapy work?
5. Is the financial expense worth the benefit?

Pay attention and be wary when you come across these “warning flags” promoting a product or service:

1. It is THE cure or gives “miraculous” results.
2. You are told not to use any other treatment.
3. The physician (or researcher) is the ONLY one with the answer.
4. It costs a lot.
5. Testimonials are the main source of information about the therapy.
6. The FDA or the AMA is persecuting the treatment or the practitioner.
7. The ingredients are a secret.

MedWatch

Report any adverse effects of medical foods, dietary supplements, infant formulas, and drugs to your doctor and to MedWatch, the FDA Medical Products Reporting Program. MedWatch reporting forms can be obtained and reports can be made by phone: 1-800-FDA-1088 or via the Internet: www.fda.gov/medwatch. You will be asked to provide:

1. Name, address and telephone number of the person who became ill.
2. Name and address of the doctor or hospital providing medical treatment.
3. Description of the problem.
4. Name of the product and store where it was bought.

Background Information

Registered Dietitians

Registered dietitians (RDs) are health care professionals who have completed academic and experience requirements established by the Commission on Dietetic Registration, the credentialing agency for the American Dietetic Association (ADA). This includes a minimum of a bachelor's degree granted by a U.S. regionally accredited college/university, or equivalent, and an accredited preprofessional experience program. RDs demonstrate their knowledge of food and nutrition by successfully passing a national credentialing exam and by completing ongoing continuing professional development. Find a Registered Dietitian at www.eatright.org.

The HIV/AIDS Dietetic Practice Group (DPG) was established to enable members of the American Dietetic Association across the country to network and share information, collaborate, and advocate having a positive impact on people affected by HIV/AIDS. <http://www.hivaidsdpg.org/>

HIV knowledgeable registered dietitians work with and are referred by primary care practitioners to provide early and ongoing medical nutrition therapy. Goals and benefits of medical nutrition therapy in HIV care include: to optimize adequate intake of nutrients, preserve weight and lean body mass, minimize side effects, coordinate foods, meal and medication schedules to optimize drug levels and reduce risk of drug resistance, and evaluate complementary therapies.

Registered dietitians are licensed or certified by the majority of states. Reimbursement varies by state and health insurance plan. Diabetes self-management and training is now under Medicare Part B.

For more information:

The American Dietetic Association
216 W Jackson Blvd
Chicago, IL 60606-6995
1-800-877-1600

Background Information

Complementary and Alternative Therapies

Acupressure

Acupressure is thought to be one of the oldest healing methods in the world. Fingertip pressure is put on certain points on the body to help balance the flow of energy. This flow of energy creates a healthy function of the internal organs and helps prevent or cure disease. Acupressure is used to relieve headaches, back pain, and other ailments. Acupressurists may be licensed, registered or certified depending on the State. Insurance coverage may be available.

For more information:

American Massage Therapy Association
820 Davis St. Suite 100
Evanston, IL60201
(847) 864-0123

Acupuncture

Acupuncture is a way of adjusting the body's "life energy" (chi) flow. It uses small needles that are inserted into the skin in carefully chosen points in the body. Treatments may include the use of herbs or other supplements as well. Acupuncture can be used to relieve symptoms as well as to promote general health and well being. Acupuncturists are licensed in some States. They can be medical doctors or other health care professionals. At this time twenty-two States license, certify or register acupuncturists, and many insurance companies are now offer acupuncture as part of covered services.

For more information:

American Academy of Medical Acupuncture Patient Referral Line
5820 Wilshire Blvd. Suite 500
Los Angeles, CA 90036
(800) 521-2262

Ayurveda

Ayurveda is a holistic system of medicine originating in India thousands of years ago. It provides guidance about food and lifestyle so that healthy people can stay healthy and folks

Background Information

with health challenges can improve their health. Ayurvedic medicine is validated by observation, inquiry, direct examination and knowledge derived from the ancient texts.

The underlying principle is identification and treatment of a person's make-up. The body is made up of tissues (dhatus), waste products (malas), and doshas (loosely translated to Energetic Forces). The energetic forces that influence nature and human beings are called Trishodas. The Tridoshas influence all movements, all transformations, all sensory functions, and many of the other activities in the human body and mind, and are made up of varying amounts of three doshas: vata, pitta, kapha. Each dosha consists of the basic elements, earth, air, fire, water and space. Methods of practice and treatments include Yoga, vigorous exercise, stretching, breathing exercises, meditation, massage, herbal treatments and the use of cleansing and detoxification. Methods are generally non-invasive and non-toxic and rely on the person's willingness to take part in a healthier way of life. Ayurvedic medicine is not appropriate for treating serious injuries. Ayurvedic practitioners are not licensed to practice in the United States.

For more information:

Ayurvedic Institute
11311 Menaul NE, Suite A
Albuquerque, NM 87112
(505) 291-9698

Chiropractic

Chiropractors represent the second largest group of primary care providers in the United States after physicians. There are fourteen colleges in the US accredited by the Council on Chiropractic.

Key Principles:

- ❖ The human organism can keep itself healthy if there are no barriers to full expression of all its vital functions.
- ❖ The body has the ability to heal itself from within.
- ❖ The life force of the person flows throughout the body through the nervous system.
- ❖ By manipulating the spine and other joints which the nervous system flow through, the chiropractor can remove barriers to let the full energy of this life force to be released.

Background Information

Chiropractors do not directly treat disease but rather help the body to restore itself. Many insurance companies now cover the cost of chiropractic care. Some managed health care plans include chiropractic care. Chiropractors are licensed in every state. They must pass an examination with the National Board of Chiropractic Examiners.

For more information:

World Chiropractic Alliance
2950 N. Dobson Rd. Suite 1
Chadler, AZ 85224
(800) 347-1011

Homeopathy

Homeopathy aims to help the body heal itself. It uses the philosophy that “a substance that causes symptoms of illness in a well person can also be used to cure similar symptoms when they result from illness”. Homeopathy uses remedies to “provoke” or challenge” the person’s vital force so that it will bring all the body’s systems to a higher level of order. There is no national standard or certification to determine if a homeopath is competent. Insurance coverage varies among the States.

For more information:

The National Center for Homeopathy
810 N. Fairfax St. #306
Alexandria, VA 22314
(703) 548-7790

Naturopathy

Naturopaths are trained in a four year accredited program. They are trained with the focus on preventive medicine and natural therapies. They are licensed in only 13 States and insurance coverage varies by State and individual insurance policy.

Philosophy of naturopathy: The body has the power to heal itself, so treatment should not be given to alleviate symptoms but to support the self-healing mechanisms, the “vital force”. The symptoms of disease are not part of the disease itself but a sign that the body is trying to get rid of toxins and return to a natural state of balance. In addition to being as natural and gentle as possible, all treatments should take into account the mental, emotional, and social aspects of a person as well as the physical.

Background Information

For more information:

American Association of Naturopathic Physicians (AANP)
2366 Eastlake Ave., Suite 322
Seattle, WA 98102

Traditional Chinese Medicine

The philosophy of traditional Chinese medicine is prevention of disease, and the view that the body is a reflection of the natural world. Chi (qi) or “life force energy” is the force that makes life happen and gives the body the ability to be active. Wellness is a function of a balanced flow of chi and illness or disease is the result of changes in the flow of chi. Wellness also needs the balance of yin and yang, that is, the dual nature of all things. Some Chinese medicine health care providers are also licensed medical doctors, and some are acupuncturists. Insurance companies differ in their coverage, according to State regulations, licensing and whether medical supervision is needed.

Traditional Chinese medicine include the following methods of practice:

- ❖ Acupuncture
- ❖ Chinese Herbs
- ❖ Chi King (meditation, relaxation training, movement, postures and breathing, etc.)
- ❖ Massage
- ❖ Traditional Chinese Medicine nutrition practices include food as diet, tonic or medicine, and food avoidance

For more information:

National Acupuncture and Oriental Medicine Alliance
14637 Starr Road Southeast
Olalla, Washington, 98359
phone: 253-851-6896
fax: 253-851-6883
<http://www.acuall.org/>

Background Information

Nutritional Supplements

Vitamins and Minerals

Vitamins and minerals are micronutrients, that is, nutrients needed in relatively small amounts compared to carbohydrates, protein, fats and water. Ongoing research in HIV continues to indicate that there is an increased need for certain nutrients, as well as inadequate intake, malabsorption, metabolic changes and changes in organ system function to affect bioavailability of specific nutrients. Problems with over supplementation of a vitamin or mineral also continue to be reported.

Until there is wide spread agreement for supplementation beyond that of a basic multiple vitamin-mineral supplement and a low dosage B-complex, work with your doctor and dietitian to identify need for additional single nutrients.

Examples of multiple vitamin-mineral supplements are:

- ❖ AARP Alphabet II Multiplevitamins and Minerals Formula 643*
- ❖ AARP Formula 683, Women's Formula*
- ❖ Centrum Advanced Formula
- ❖ Centrum Silver*
- ❖ Nature Made Century-Vite
- ❖ Nature Made Essential Balance
- ❖ One A Day Men*,
- ❖ Theragram M

The Daily Values (DVs) listed on labels of most food products and supplements can be used as a basic guide. DVs are made up of two sets of references, Daily Reference Values (DRV) and Reference Daily Intakes (RDIs). RDIs have replaced the term USRDA and represents the estimated values for vitamins and minerals for individuals over 4 years of age.

The DVs are expected to change eventually to reflect revised Recommended Dietary Allowances (RDAs) needed as determined by the National Academy of Science. Currently, instead of publishing one report, they are producing 7 reports over a few years.

The Recommended Dietary Allowance (RDA) is similar but different term. RDAs are

Background Information

nutrients needed for almost all healthy individuals in specific age and gender groups. In the past it was to prevent deficiency, and now it is the recommended amount of nutrients to decrease the risk of chronic disease.

Tolerable Upper Intake Levels (ULs) for the first time have been set. ULs are the maximum intake by an individual that is unlikely to pose risk of adverse health effects in almost all healthy individuals and in a specified group. These are not to be seen as a recommendation of intake

Antioxidants are vitamin C, vitamin E, beta-carotene and the mineral selenium. HIV infection is believed to increase oxidative stress, which antioxidants may help. Recently it was reported that decreasing viral load decreases oxidative stress.

Background Information

Other Dietary Supplements

Besides vitamins and minerals, dietary supplements include amino acids, fiber, herbal products and other substances. Herbal products usually contain a very small amount of vitamins and minerals. These products usually contain a very small amount of vitamins and minerals. The value of products for general health is currently under study and standards for their purity, potency and composition are being developed.

Making choices may be confusing. Health claims may appear promising, yet lack scientific evidence. FDA protects the public from harmful or misleading ingredients, but it does not approve food or dietary supplements.

Use Caution!

Many dietary supplements may act like drugs, interact with drugs and nutrients, may have side effects, and other concerns. They may contain more or less than the ingredients listed, they may contain harmful contaminants intentionally or not.

The popular herb, St. John's Wort, commonly used for mild depression, was found to greatly reduce the drug levels of the protease inhibitor indinavir (Crixivan) and numerous other drugs. This is an example of how little is known about dietary supplements and how the prescribing physician, pharmacist and dietitian should be informed of all dietary supplements and medications being taken.

The chart shows some popular dietary supplements, some harmful and some promising. Each must be evaluated with your doctor prior to use.

*Remember to report adverse events to your doctor and to MedWatch either directly or through your doctor. For more information see **References** (Section 10).*

Background Information

Nutrient	Function	Per Day			Tolerable Upper Intake Level
		Reference Daily Intake (RDI) or Dietary Value DV)	Recommended Dietary Allowance (RDA)		
Vitamin A	Necessary for normal vision and for healthy cell structure. Helps keep sin healthy and protects against infection in the linings of the mouth, nose, throat, lungs, and digestive and urinary tracts.	5,000 IU	10,000 IU /Men 8,000 IU /Women	Not recommended	
Beta-Carotene	Converted in the body to vitamin A as needed and prevent vitamin A deficiency. No other functions have yet been identified. Found to function as an antioxidant in lab tests, but not consistently in humans. Reports on adverse effects of over-consumption have been contradictory	Not established	Not established	Not advisable other than for the prevention and control of vitamin A deficiency.	
Thiamin (B 1)	Helps in the breakdown and utilization of carbohydrates. Important for healthy nerves and muscles and for normal heart function. A mild deficiency may cause loss of appetite, fatigue, irritability, and disturbed sleep. A deficiency may also cause night blindness, dry rough skin, loss of appetite and diarrhea.	1.5 mg	1.5 mg /Men 1.1 mg /Women	Up to 50 mg	
Riboflavin (B2)	Helps in the break down of and utilization of carbohydrates, fats, and proteins. Needed for the utilization of other B-complex vitamins. A deficiency may cause a reduction in antibody production after immunization. A prolonged deficiency may lead to chapped lips, cracks and sores in the corners of the mouth, a sore tongue, and sensitivity to light.	1.7 mg	1.7 mg /Men 1.3 mg /Women	Up to 50 mg	
Niacin (B3)	Helps maintain the function of the skin, nerves, and gastrointestinal tract. Also aids in the release of energy from foods.	20 mg	19 mg /Men 15 mg /Women	Up to 50 mg	

Background Information

Nutrient	Function	Per Day		
		Reference Daily Intake (RDI) or Dietary Value (DV)	Recommended Dietary Allowance (RDA)	Tolerable Upper Intake Level
Pyroxidine (B6)	Plays an important role in maintaining the normal function of the immune system. Can help prevent anemia, skin lesions, and nerve damage. Deficiencies may result in a decrease in white blood cell count and antibody production, possibly reducing resistance to cancer and other diseases.	2.0 mg	2.0 mg /Men 1.6 mg /Women	Up to 50 mg
Vitamin B 12	Essential for the manufacture of genetic material in the cells and therefore, growth and development. Plays a role in the formation of red blood cells and helps prevent pernicious anemia. Helps in the utilization of folic acid and carbohydrates, and helps maintain a healthy nervous system. A deficiency may cause a reduction in white blood cell function and impair the immune response, which can increase susceptibility to infection. A deficiency may also cause anemia, sore mouth and tongue, numbness and tingling of the limbs, memory loss, and depression.	6 mcg	2.0 mcg /Men 2.0 mcg /Women	Up to 100 mcg
Folate	Essential for growth and reproduction, and for the utilization of protein. Important in the formation of red blood cells, and the development and proper function of the nervous system. A deficiency may cause a reduction in white blood cell count, which can increase susceptibility to infection. A deficiency may also cause anemia.	0.4 mg (400 mcg)	400 mcg /Men 400 mcg /Women 600 mcg pregnancy or over 70 y female 500 mcg breast feeding	Up to 400 mcg
Pantothenic Acid	Essential for the conversion of sugars and fats into energy, and for the body's use of other vitamins.	10 mg	additional 100 No RDA (ESA = 4-7 mg)	Up to 50 mg

Background Information

Nutrient	Function	Per Day			Tolerable Upper Intake Level
		Reference Daily Intake (RDI) or Dietary Value (D)	Recommended Dietary Allowance (RDA)		
Vitamin C	<p>Needed for the proper function of the nervous system and adrenal glands, and for normal growth and development. A deficiency may cause a decrease in antibody production.</p> <p>Essential for healthy cell structure. Helps maintain normal connective tissue, promotes healthy teeth and gums, aids in iron absorption, and is needed for proper wound healing. A deficiency can cause a decrease in general resistance and antibody response, which can increase susceptibility to infection. A deficiency can also lead to anemia and the destruction of red blood cells.</p>	60 mg	<p>75 mg Women 90 mg Men Smokers: Add 35 mg</p>		2,000 mg/day based on the adverse effect of osmotic diarrhea and other gastrointestinal disturbances.
Vitamin E (alpha-tocopherol)	<p>Helps in the formation of red blood cells and in the utilization of vitamin K. A deficiency can cause a decrease in general resistance and antibody response, which can increase susceptibility to infection. A deficiency can also lead to anemia and the destruction of red blood cells.</p>	30 IU	<p>15 mg Women 15 mg Men 15 mg = 22 IU natural alpha-tocopherol, or 33 IU synthetic form.</p>		1,000 mg/day of any natural form of alpha-tocopherol (equal to 1,500 IU alpha-tocopherol or 1,100 IU of synthetic vitamin E, dl-alpha-tocopherol). Higher amounts increase risk for bleeding. Vitamin E can interfere with blood coagulation.
Selenium	<p>Needed for proper immune response. It also improves the supply of oxygen to the heart muscle, thereby increasing endurance. A deficiency may cause impaired antibody production and may impair the killing of bacteria, which can lead to increased susceptibility to infection.</p>	Not established	<p>55 mcg Women 55 mcg Men</p>		400 mcg/day based on the adverse effect of selenosis; could cause brittleness and loss of hair and nails. Also could cause GI disturbances, skin rash, fatigue, irritability, and nervous system abnormalities.

Background Information

Nutrient	Function	Per Day		
		Reference Daily Intake (RDI) or Daily Value	Recommended Dietary Allowance (RDA)	Tolerable Upper Intake Level
Zinc	Important for wound and burn healing, and needed for the formation of proteins and nucleic acids. Helps the body use carbohydrates. A deficiency may cause a loss of appetite and affect the sense of taste. A severe deficiency may result in hair loss, rash, and inflammation of the mouth, tongue, eyelids, and areas around the fingernails.	15 mg	15 mg /Men 12 mg /Women	15 mg /men 12 mg /Women
Calcium	Important for bone and tooth structure, blood clotting, nerve conduction, muscular and heart contraction, and cell walls. Also important for facilitating vitamin B12 absorption and neurotransmitter release. Deficiency may result in osteoporosis, loss of height, premature tooth loss, bone pain or fracture. Deficiency may also result in muscle cramping.	1 g (1000 mg)	For those at risk for osteoporosis: 1000-1300 mg	2.5 g (2500 mg)

Adapted from:

1. McMillan, Lisa, Jill Jarvie, and Janet Brauer. Positive Cooking: Cooking for People Living with HIV. Avery, 1997. Used with Permission.
2. Kurzweil, Paula. "Daily Values' Encourage Healthy Diet." FDA Consumer Special Issue. May 1993.
3. CFSAN, FDA. Food Labeling and Nutrition. Last updated January 7, 2000. <http://vm.cfsan.fda.gov/label.html>.

References

Selected Articles

Anthropometrics

Gibbons D: Workbook - Principles of Exercise Programming: Skinfolds, Edith Cowan University, 1996.

http://spider.fste.ac.cowan.edu.au/courseware/units/hms1110/workbook/html/module_03_02.html

Hammond KA: "Dietary and Clinical Assessment" in Krause's Food, Nutrition, & Diet Therapy, 10th Edition, Mahan KL & Escott-Stump S, eds. WB Saunders, Philadelphia, 2000.

Lohman TG and AF Roche: Applied Body Composition Assessment. Human Kinetics Books, Champaign, IL, 1996.

Lohman TG, Roche AF, Martorell R: Anthropometric Standardization Reference Manual. Human Kinetics Books, Champaign, IL, 1988.

Queensland University of Technology. Bio-Impedance Analysis Media Review, <http://florey.biosci.uq.edu.au/BIA/BIA.html>

Third National Health and Nutrition Examination (NHANES III) Anthropometric Procedures Video. Government Printing Office (GPO), GPO order number 107-022-01335-5, \$19.00

University of Virginia Health Science Center, Children's Medical Center: Skinfolds. <http://.med.virginia.edu/medicine/clinical/pediatrics/CMC/growth/skfld.htm>

University of Virginia Health Science Center, Children's Medical Center: Equipment. <http://.med.virginia.edu/medicine/clinical/pediatrics/CMC/growth/skfld.htm>

USDA and USDHHS. Dietary Guidelines for Americans, Fourth Edition, 1995. Home and Garden Bulletin No. 232. December 1995. <http://www.nal.usda.gov/fnic/dga/dguide95.html>

References

Selected Articles

Complementary Therapies and Dietary Supplements

Benardot D, Ed. Sports Nutrition: A Guide for the Professional Working with Active People, Second Edition, American Dietetic Association, 1993.

California AIDS Fraud Task Force, 1999;
<http://www.aidsfraud.com/>

Center for Safety and Applied Nutrition (CFSAN), US Food and Drug Administration (FDA). Dietary Supplements.
<http://vm.cfsan.fda.gov/~dms/supplmnt.html>

Cohen RD and Braunstein NS. Vitasearch Reference Guide to Vitamins and Minerals. Newmarket, NH; 1996. 609-659-2528.

Collins W. The American Holistic Health Association Complete Guide to Alternative Medicine. Warner Books, 1996.

Consumer Lab: independent test results and information on health, wellness, and nutrition products.
<http://www.consumerlab.com/>

Food and Nutrition Information Center (FNIC), National Agricultural Library (NAL). Dietary Reference Intakes (DRI) and Recommended Dietary Allowances (RDA).
<http://www.nalusda.gov/fnic/etext/000105.html>

Eisenberg DM, et al. "Unconventional medicine in the United States" NEJM 328:246-252. 1993

FDA. Food Labeling and Nutrition. Last updated January 7, 2000.
<http://vm.cfsan.fda.gov/label.html>

Foster S & Tyler VE. Tyler's Honest Herbal: A Sensible Guide to the Use of Herbs and Related Remedies. Hayworth, 1999.

Journal of Complementary and Alternative Medicine, published bi-monthly by Mary Ann Liebert, Inc.
<http://www.liebertpub.com/acm/>

References

Selected Articles

Kleiner SM & Greenwood-Robinson M. Power Eating, Human Kinetics Publishers, 1998.

Kurzweil, Paula: "Daily Values Encourage Health Diet." FDA Consumer Special Issue. May 1993.

MedWatch. FDA Medical Products Reporting Program. Phone: 800-FDA-1088, fax: 800-FDA-1078,
<http://www.fda.gov/medwatch>

Memon AS "Ayurveda-the other medicine." Alternative Therapies Clinical Practice, p126-134, July/Aug 1997.

Natural Medicines Comprehensive Database.
<http://www.naturaldatabase.com/>
(\$92/year for print or web version, \$132/year for both print and web versions.

Quackwatch. <http://www.quackwatch.com/>. A Guide to Health Fraud, Quackery, and Intelligent Decisions.

Piscitelli SC. Use of complementary medicines by patients with HIV: full sail into uncharted waters. Medscape HIV/AIDS 6(3), 2000. ©2000 Medscape, Inc.
<http://www.medscape.com/medscape/HIV/journal/2000/v06.n03/mha0605.pisc/mha0605.pisc-01.html>

Sarubin A. The Health Professional's Guide to Popular Dietary Supplements. The American Dietetic Association. 1999.
<http://www.eatright.org>

Shealy CN, Ed. The Complete Family Guide to Alternative Medicine: an Illustrated Encyclopedia of Natural Healing. Element Books Ltd. 1996.

University of California Berkeley. Wellness Guide to Supplements.
<http://www.berkeleywellness.com/html/dsSupplements.html>

Food and Water Safety

FDA/CFSAN Eating Defensively: Food Safety Advice for Persons with AIDS:
<http://www.cfsan.fda.gov>

References

Selected Articles

Food and Drug Administration (FDA): <http://www.fda.gov> or local listing in phone book

Food Information and Seafood Hotline: 1-800-332-4010

Food Safety Inspection Service www.fsis.usda.gov

The International Bottled Water Association: <http://www.bottledwater.org>

Meat and Poultry Hotline: 1-800-535-4555

NSF International, The Public Health & Safety Company:
<http://www.nsf.org>

Nutrition and Your Child's health
<http://www.fxbcenter.org/kitchen/>

The Partnership for Food Safety Education: www.fightbac.org

United States Department of Agriculture (USDA): <http://www.usda.gov> or local listing in phone book

General

Bartlett JG, et al. Medical Management of HIV Infection. Johns Hopkins University School of Medicine; Baltimore, MD, 1997.

Fields-Gardner C. "Food based nutrients as therapeutic options in HIV care." BETA Newsletter, 1994.

Heimbürger DC, et al. Handbook of Clinical Nutrition. Mosby-Year Book, Inc., St. Louis, 1997.

McMillan L, Jarvie J and Brauer J. Positive Cooking, Cooking for People Living with HIV. Garden City Park, Avery Publishing Group. 1997.

Nutrition Software Library, Version 3.1, Computrition, Inc. Chatsworth, CA

Romeyn M. Nutrition and HIV: A New Model for Treatment, Revised and Updated. San

References

Selected Articles

Francisco, Jose-Bass, Inc. 1998

USDA and USDHHS. Nutrition and Your Health: Dietary Guidelines for American, Fifth Edition, 2000.

<http://www.usda.gov/cnpp/DietGd.pdf>

or contact: Center for Nutrition Policy and Promotion, USDA, 1120 20th Street, NW, Suite 200, North Lobby, Washington, DC 20036.

Zeman FJ, Ney DM. Applications of Clinical Nutrition. Prentice Hall, NJ, 1988.

HIV Nutrition Guides, Guidelines and Protocols

AIDS Nutrition Services Alliance. Nutrition Guidelines for Agencies Providing Food to People with HIV/AIDS. 1999. Available at ANSA: 1400 I Street NW, Suite 1220, Washington, DC 20005, phone: 202-289-5650, fax: 202-842-3323 or <mailto:ANSA@aidsnutrition.org>

Anderson JA, Fenton M, Heller L, Vazzo L. Nutrition referral criteria for adults (over 18 years) with HIV/AIDS. In: Guidelines for Implementing HIV/AIDS Medical Nutrition Therapy, Los Angeles County Commission on HIV Health Services, September 1999. Call 213-351-8025 for entire document.

Fenton M, Heller L, Vazzo L. Nutrition referral criteria for pediatrics (under 18 years) with HIV/AIDS. In: Guidelines for Implementing HIV/AIDS Medical Nutrition Therapy, Los Angeles County Commission on HIV Health Services, September 1999. Call 213-351-8025 for entire document.

Fenton M, Silverman E, Vazzo L. "HIV/AIDS adult medical nutrition therapy protocol," in: Gilbreath J, Inman-Felton AE, Johnson EQ, Robinson G, Smith K, Eds. Medical Nutrition Therapy Across the Continuum of Care, Chicago IL: American Dietetic Association and Morrison's Health Care; 1998. Available through ADA: 312-899-5000 or <http://www.eatright.org>

Fields-Gardner C, Thomson CA, Rhodes S. A Clinicians Guide to Nutrition in HIV and AIDS. The American Dietetic Association, Chicago, 1997.

Heller L, Morris V, Rothpletz-Puglia P, Papathakis P. "HIV/AIDS children/adolescent medical nutrition therapy protocol." in: Gilbreath J, Inman-Felton AE, Johnson EQ, Robinson G, Smith K, Eds. Medical Nutrition Therapy Across the Continuum of Care, Chicago IL: American Dietetic Association and Morrison's Health Care; 1998. Available

References

Selected Articles

through ADA: 312-899-5000 or <http://www.eatright.org>

Los Angeles County Commission on HIV Health Services. Guidelines for Implementing HIV/AIDS Medical Nutrition Therapy, Los Angeles, 1999. Available by calling 213-351-8025.

Panel on Clinical Practices for the Treatment of HIV Infection. Guidelines for the Use of Antiretroviral Agents in HIV-Infected Adults and Adolescents. Department of Health and Human Services / Henry J Kaiser Family Foundation, January 28, 2000. Available at <http://www.hivatis.org> or 1-800-448-0440.

Karnofsky et al. The use of the nitrogen mustards in the palliative treatment of carcinoma. *Cancer*, 1:634-656,1984.

Pediatrics

Baum K, Shor Posner G, Zhang G, et al. HIV infection in women is associated with severe nutritional deficiencies. *J Acquired Imm Defic Synd and Hum Retrovirology* 1997; 16:272-278.

The Working Group on Antiretroviral Therapy and Medical Management of HIV-Infected Children. Guidelines for the Use of Antiretroviral Agents in Pediatric HIV Infection. Convened by the National Pediatric and Family HIV Resource Center (NPHRC), the Health Resources and Services Administration (HRSA), and the National Institutes of Health (NIH). January 7, 2000. Available at <http://www.hivatis.org> or 1-800-448-0440.

Castillo-Duran C, Vial P, Uauy R. Trace mineral balance during acute diarrhea in infants. *J Pediatr*. 1988; 113:452-457.

Cox JH, Cooning SW. Parenteral nutrition. *Handbook of Pediatric Nutrition*. QU PM, Lang CM, eds. Gaithersburg, MD, Aspen Publishers, 1993; 279-314.

Davis A. Indications for techniques for enteral feeds. *Pediatric Enteral Nutrition*. Baker SB, Baker RD, Davis A, eds. NY, NY Chapman & Hall, publishers, 1994; 139-156.

Deatrick JA, Lipman TH, Thurber F. Nutritional assessment for children who are HIV-infected. *Pediatr Nurs*. 1998; 24:137-150.

Hammerquist F, Wernerman J, Ali R, et al. Addition of glutamine to total parenteral nutrition

References

Selected Articles

after elective abdominal surgery spares the fall in muscle protein synthesis and improves gut function. *Ann Surg*, 1989;209:455-461.

Heller LS, Shattuck D. Nutrition support for children with HIV/AIDS. *J Am Diet Assoc*, 1997; 97:473-474.

Henderson RA, Talusan K, Hutton N, Yolken RH, Caballero B. Serum and plasma markers of nutritional status in children with the Human Immunodeficiency Virus. *J Am Diet Assoc*. 1997;97:1377-1381.

Johnston BE, Ahmad K, Smith C, et al. Alternative therapy use among HIV-infected patients of the inner city (Abstract 42391). 12th World AIDS Conference, Geneva, Switzerland, 1998.

Liang B, Chang S, Araghiniknam M, et al. Vitamins and immunomodulation in AIDS. *Nutrition* 1996;12:1-7.

Lingard CD. Enteral nutrition. *Handbook of Pediatric Nutrition*. Queen PM, Lang CM, eds. Gaithersburg, MD Aspen Publishers, 1993: 249-278.

Mastroiacoro P, Ajassa C, Berardelli G, et al. Antioxidant vitamins and immunodeficiency. *Int J Vitamin Nutr Res* 1996;66:141-145.

McCoy BL. TPN in the pediatric patient. *Support Line*, 1991;12:1-5.

Miller T., Nutritional aspects of pediatric HIV infection. In: Walker WA, Watkins JB, Eds. *Nutrition in Pediatrics*. 2nd edition. Hamilton, Ontario: C. Decker; 1996:534-550.

Rothbaum RJ. Serum alkaline phosphatase and zinc undernutrition in infants with chronic diarrhea. *Am J Clin Nutr* 1982; 35:595-598.

Shabert JK, Wilmore DW. Glutamine deficiency as a cause of human immunodeficiency virus wasting. *Med Hypothesis*. 1996;252-256.

Vanderhulst RRJ, Van Kreel BK, Von Meyenfeld MF et al. Glutamine and the preservation of gut integrity. *Lancet* 1993; 341:1363-1365.

Vogl D, Smith M, Rabkin BD, et al. Use and cost of alternative therapies in an HIV-infected Medicaid population. (Abstract 442387). 12th World AIDS Conference, Geneva, Switzerland, 1998.

References

Selected Articles

Winter H, Chang T. Gastrointestinal and nutritional problems in children with immunodeficiency and AIDS. *Pediatr Clin N A*. 1996;43:573-590.

Vegetarian

American Dietetic Association. Position of The American Dietetic Association: Vegetarian diets. Nov. 1997.

<http://www.eatright.org/adap1197.html>

Havala S. *Being Vegetarian*. The American Dietetic Association, 1996.

The Health Connection. *The Vegetarian Food Pyramid*®, The Health Connection, 55 W Oak Ridge Dr, Hagerstown, MD 21740-7390, 800-548-8700.

<http://www.vegsource.com/nutrition/pyramid.htm>

Messina V, Messina M. *The Vegetarian Way*. Crown Trade Publishing, 1996.

Women and Perinatal

Bass E. Ladies first: women's bodies pose challenges for HIV treatment. *HIV Plus*, 1999; 3.

Drake K, Youchah J, Damus K. Human immunodeficiency virus disease in pregnancy. *J Assoc Acad Min Phys*, 1995; 14:105-11.

Duerr A, Sierra MF, Feldman J, Clarke LM, Ehrlich I, DeHovitz. Immune compromise and prevalence of *Candida vulvovaginitis* in human immunodeficiency virus-infected women. *Obstet Gynecol*, 1997;90:252-6.

Flexner C. *Fat City: Understanding HIV Lipodystrophy*. The Hopkins HIV Report, 1998; 10(5).

Human Breast Milk Banking Association of North America: 1-888-232-8809

Levine A. HIV disease in women. *HIV Clin Mgmt, Medscape*, 1998; 9.

Melvin A, et al. Effect of pregnancy and zidovudine therapy on viral load in HIV-1 infected women. *J Acq Imm Def Syn and Human Retro Vir*, 1997;14:232-6.

Miller K, et al. Transdermal testosterone administration in women with Acquired Immuno-deficiency Syndrome: Wasting: A Pilot Study. *J Clin Endocrin and Metab*, 1998;

References

Selected Articles

83:2717-2725.

Perinatal HIV Guidelines Working Group. Public Health Service Task Force Recommendations for the Use of Antiretroviral Drugs in Pregnant Women Infected with HIV-1 for Maternal Health and for Reducing Perinatal HIV-1 Transmission in the United States; Centers for Disease Control and Prevention; February 25, 2000. Available at <http://www.hivatis.org> or 1-800-448-0440.

Pitt J, Cotton D. Treating the HIV-infected pregnant woman and her child. *AIDS Clin Care*, 1997; 9(12):91-3,95.

Orsi AJ, Grady C, Tax A, McCorkie R. Nutritional adaptation of women living with HIV: a pilot study. *Holist Nurs Prac*, 1997.

Reef SE, et al. Treatment options for vulvovaginal candidiasis. *Clin Infec Dis*, 1995; 71:S80-90.

Stevens PE. Impact of HIV/AIDS on women in the United States: challenges of primary and secondary prevention. *Health Care Women Int*, 1995;16:577-95.

Women, Infants and Children. Toll free numbers, who is eligible, how to apply, etc. <http://www.fns.usda.gov/wic/>

Prueba Rápida de Nutrición

Por cada declaración siguiente ponga un círculo alrededor de las que **SI** le aplican a usted, y un círculo alrededor de **NO** a los que no le aplican a usted.

1. Sin querer, he perdido () o aumentado () pes durante los últimos seis meses. SI NO
2. Tengo problemas para comer por causa de el estado de mi salud. SI NO
3. Como menos de tres veces al día. SI NO
4. Al día, como menos de tres porciones de carne o otras proteínas como pollo, pescado, mantequilla de maní/cacahuete, frijoles, lentejas, etc. SI NO
5. Al día, como menos de cuatro porciones de pan, cereal, arroz, pasta/macarrones, tortilla, galleta, etc. SI NO
6. Al día, como menos de tres porciones de frutas o vegetales. SI NO
7. Al día, consumo menos de tres porciones de productos lácteos como leche, queso, yogurt etc. SI NO
8. Casi todos los días tomo tres o más bebidas de alcohol como cerveza, licor, o vino SI NO
9. No siempre tengo suficiente dinero para comprar la comida que necesito. SI NO
10. No tengo ningún lugar donde cocinar ni mantener mis alimentos frescos. SI NO
11. No tomo ningún suplemento de vitaminas ni minerales. SI NO
12. Frecuentemente sufro de uno o mas de los siguiente: **(Por favor ponga un círculo alrededor de los que le aplicen)** *diarrea, nausea, acidez, inflado del estomago, vómitos, falta de apetito, cansancio, úlcera gástrico* SI NO
13. Tomando uno o más de las siguientes medicamentos: **(Por favor ponga un círculo alrededor de los que le aplicen)** *AZT, ddi(Videx), ddC(Hivid), d4T(Zerit), 3TC(Epivir), Combivir, Trizivir, saquinavir(Fortovase), indinavir(Crixivan), ritonavir(Norvir), nelfinavir (Viracept), amprenavir(Agenerase), Invirase, lopinavir/ritonavir(Kaletra), delavirdine(Rescriptor), nevirapine(Viramune), efavirenz(Sustiva), abacavir(Ziagen), INH, Antibióticos, Pentamidina, Bactrim, Hyroxyurea, Gemfibrozil(Lopid), Atorvastatin(lipitor), Pravastatin(Pravachol), Simvastatin(Zocor), Glucophage (Metformin), Avandia(rosiglitazone), Actos(Pioglitazone), otros: _____* SI NO
14. Cada día fumo cigarillos, puros, o mástico tabaco. SI NO
15. Frecuentemente no tengo ganas de comer, cocinar, ni ir a comprar comida. SI NO
16. Tengo problemas de estómago cuando consumo productos lácteos. SI NO
17. Tengo problemas de estómago cuando como comidas altas en grasa. SI NO
18. Tengo problemas con mi dentadura, boca o habilidad de tragar (como aftas/candidiasis bucal) que hacen difícil que yo coma. SI NO
19. Tengo que vigilar lo que como debido a mis problemas de salud como: que tengo: **(Por favor ponga un círculo alrededor de los que le aplicen)** *diabetes, presión alta, problemas del riñón o problemas del hígado (hepatitis C o B, acumulación de agua en cavidad peritoneal, cirrosis), problemas del corazón, ataque del corazón, alto colesterol o triglicéridos, cancer, alergias: _____* SI NO
20. Tomo uno o más de los siguientes: **(Por favor ponga un círculo alrededor de los que le aplicen)** *Megace, Marinol, Suplementos nutricional, multiple vitaminas y minerals, sonda para alimentación, nutrición parenteral total, Testosterona, Nandrolone (Deca-Durabolin), Oxandrolone (Oxandrin) DHEA, hormona para crecimiento, Anadrol-50 (androstenedione), Estrógeno, Progesterona, otra: _____* SI NO
21. **Para Mujeres:** Yo estoy encinta/embarazada o estoy dando el pecho. SI NO

= Número Total de Respuestas SI:

Ahora usted tiene una puntuación de Nutrición.

Si es más de 5 pueda ser que usted necesite más ayuda de nutrición.

Debe consultar con su proveedor de cuidados médicos.

Prueba Rápida de Nutrición

Por cada declaración siguiente ponga un círculo alrededor de las que **SI** le aplican a usted, y un círculo alrededor de **NO** a los que no le aplican a usted.

1. Sin querer, he perdido () o aumentado () pes durante los últimos seis meses. SI NO
2. Tengo problemas para comer por causa de el estado de mi salud. SI NO
3. Como menos de tres veces al día. SI NO
4. Al día, como menos de tres porciones de carne o otras proteínas como pollo, pescado, mantequilla de maní/cacahuete, frijoles, lentejas, etc. SI NO
5. Al día, como menos de cuatro porciones de pan, cereal, arroz, pasta/macarrones, tortilla, galleta, etc. SI NO
6. Al día, como menos de tres porciones de frutas o vegetales. SI NO
7. Al día, consumo menos de tres porciones de productos lácteos como leche, queso, yogurt etc. SI NO
8. Casi todos los días tomo tres o más bebidas de alcohol como cerveza, licor, o vino SI NO
9. No siempre tengo suficiente dinero para comprar la comida que necesito. SI NO
10. No tengo ningún lugar donde cocinar ni mantener mis alimentos frescos. SI NO
11. No tomo ningún suplemento de vitaminas ni minerales. SI NO
12. Frecuentemente sufro de uno o mas de los siguiente: **(Por favor ponga un círculo alrededor de los que le aplicen)** *diarrea, nausea, acidez, inflado del estomago, vómitos, falta de apetito, cansancio, úlcera gástrico* SI NO
13. Tomando uno o más de las siguientes medicamentos: **(Por favor ponga un círculo alrededor de los que le aplicen)** *AZT, ddI(Videx), ddC(Hivid), d4T(Zerit), 3TC(Epivir), Combivir, Trizivir, saquinavir(Fortovase), indinavir(Crixivan), ritonavir(Norvir), nelfinavir (Viracept), amprenavir(Agenerase), Invirase, lopinavir/ritonavir(Kaletra), delavirdine(Rescriptor), nevirapine(Viramune), efavirenz(Sustiva), abacavir(Ziagen), INH, Antibióticos, Pentamidina, Bactrim, Hyroxyurea, Gemfibrozil(Lopid), Atorvastatin(lipitor), Pravastatin(Pravachol), Simvastatin(Zocor), Glucophage (Metformin), Avandia(rosiglitazone), Actos(Pioglitazone), otros: _____* SI NO
14. Cada día fumo cigarillos, puros, o mástico tabaco. SI NO
15. Frecuentemente no tengo ganas de comer, cocinar, ni ir a comprar comida. SI NO
16. Tengo problemas de estómago cuando consumo productos lácteos. SI NO
17. Tengo problemas de estómago cuando como comidas altas en grasa. SI NO
18. Tengo problemas con mi dentadura, boca o habilidad de tragar (como aftas/candidiasis bucal) que hacen difícil que yo coma. SI NO
19. Tengo que vigilar lo que como debido a mis problemas de salud como: que tengo: **(Por favor ponga un círculo alrededor de los que le aplicen)** *diabetes, presión alta, problemas del riñón o problemas del hígado (hepatitis C o B, acumulación de agua en cavidad peritoneal, cirrosis), problemas del corazón, ataque del corazón, alto colesterol o triglicéridos, cancer, alergias: _____* SI NO
20. Tomo uno o más de los siguientes: **(Por favor ponga un círculo alrededor de los que le aplicen)** *Megace, Marinol, Suplementos nutricional, multiple vitaminas y minerals, sonda para alimentación, nutrición parenteral total, Testosterona, Nandrolone (Deca-Durabolin), Oxandrolone (Oxandrin) DHEA, hormona para crecimiento, Anadrol-50 (androstenedione), Estrógeno, Progesterona, otra: _____* SI NO
21. **Para Mujeres:** Yo estoy encinta/embarazada o estoy dando el pecho. SI NO

= Número Total de Respuestas SI:

Ahora usted tiene una puntuación de Nutrición.

Si es más de 5 pueda ser que usted necesite más ayuda de nutrición.

Debe consultar con su proveedor de cuidados médicos.

Escrutinio rapida de nutrición

Escrutinio rapida de nutrición QuickNuritionScreen

Más información sobre su respuesta.

Pregunta 1. Sin querer he perdido or aumentado 10 o más libras dentro sies meses.

S' usted ha perdido peso:

A veces bajar de peso se nos hace una buen idea. Esto no es el caso cuando uno está infectado con el virus de inmunodeficiencia humana (VIH). Unos de los primos s'nptomomas que avisa las personas con VIH que algo esta mal es la pérdida de peso. Por lo cual estar unas pocas libras sobre de peso, que estar muy delgado/a. S' usted ha perdido peso avise su proveedor médico. S' esta disponible una dietista registrada o nutricionista, pide hablar con el/ella. No puede esperar a conseguir ayuda cuando se trata de peso perdido.

S' usted ha aumentado de peso:

El aumento de peso sin querer puede presentar algunos problemas para personas con VIH. El aumento de peso puede ser un s'nptoma de lipodistrofia. Lipodistrofia es un nuevo s'ntoma caracterizado por cambios f'sico y metabolico en el cuerpo. Es importante hablar con su proveedor médico o dietista registrada para saber si el aumento de peso es saludable o problematico. Igual de importante es investigar la causa del aumento de peso para saber como tartar lo. Con peso en exceso viene el riesgo de diabetes, problemas con el corazón y espalda.

Escrutinio rapida de nutrición

Escrutinio rapida de nutrición

QuickNuritionScreen

Pregunta 2. Tengo problemas para comer por cuasa del estado de mi salud.

Cuando no se siente bien por cual quier razón, causa que no tenga ganas de comer. S' recientemente usted se ha sentido mal es probable que no tenga ganas de comer. Una recien enfermedad oportunista infecciosa como la gripa o hasta un catarro puerder ser razón por no comer. Sentirse deprimido tambien puede ser razón por no comer. Otros problemas pueden ser relacionados a los medicamentos que esta tomando ahora.

Hay muchos problemas relacionados con su salud que pueden afectar su poder de comer. Es demasiado importante que usted trate de averiguar por que usted no esta comiendo. Hay información y ayuda disponible para casi cada problema que usted pueda tener. Hable con su proveedor médico y consiga ayuda. Comer es una de las cosas más importantes que usted puede hacer para mantenerse en buen salud y sentirse mejor. No espere hasta que pierda peso para conseguir ayuda con problemas de comer.

Raz—nes común que causan problemas para comer:

Pérdida de apetito (en veces se llama anorexia)

Sentirse lleno del estómago muy rápido

Boca o garganta dolorida (afta)

Náusea, vómito.

Diarrrea o constipación - muchas personas no comen por miedo a tener diarrhea o constipaci—n

Dificultad al tragar (en veces se llama disfagia)

Sequedad de boca

Cambio de sabor (como agrio o metálico)

Fatiga (cansancio)

Fiebre, sudor nocturno

Pérdida de peso

Inflado del estómago, gas, agruras o otros problemas digestivos

Depresión

Deshidratación

Escrutinio rapida de nutrición

Escrutinio rápida de nutrición

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Pregunta 3. Como menos de tres veces por d'a.

Personas quien comen por lo menos tres veces al d'a son más probable de recibir las calor'as y alimentos que necesitan para mantener buen salud. La mayor'a de personas no pueden comer lo suficiente en una comida para obtener los alimentos necesarios para todo el d'a. VIH causa que necesite más alimentos, por ésta razón es muy importante comer con frecuencia. El mantenimiento de su musculatura es un beneficio adicional de comer con frecuencia.

Puede ser un dif'cil obtener los alimentos (calor'as, prote'na, vitaminas y minerales) necesarios para buen salud cuando no esta comiendo con frecuencia. Revise la siguiente lista de razones por lo cual personas no comen tres veces al d'a. S' alguna de éstas razones le corresponde, puede obtener ayuda adicional.

- El estómago se vacie despacio
- Se siente lleno/a muy rápido
- Grasas causan que el estómago se vacie despacio
- Mal o poco apetito
- Pobre acceso a comida o no tener suficiente dinero para comprar comida
- Medicamentos
- Un ritmo de vida ajetreado o con mucho estrés
- Algun problema en la lista de pregunta una

Escrutinio rápida de nutrición

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Pregunta 4. Al d'a, como menos de tres porciones de carne o otras prote'nas como pollo, pescado, mantequilla de man'/cacahuete, frijoles o lentejas cocidos, etc.

Prote'na es un alimento necesario en su salud. Es muy importante que usted tenga suficiente prote'na en su dieta para mantener toda su musculatura. S' usted no come prote'na por lo menos tres veces al d'a, es probable que usted no este obteniendo toda la prote'na que usted necesita. Lo más importante aquí es que usted este obteniendo la cantidad adecuada de prote'na que usted necesita diario. Lo siguiente son algunas maneras para determinar si usted esta obteniendo la prote'na necesaria para usted.

- Escriba las comidas que usted come en un d'a. Luego compare la cantidad de prote'na que usted obtiene en sus comidas con la cantidad recomendada.
- Pide que su proveedor médico revise su lista de comidas que come al d'a.
- Usted necesita por lo menos 4 a 6 porciones de prote'na al d'a. Revise la Guía de Comidas para obtener una idea de cuales comidas contienen prote'na y la cantidad de una porción.
- Comida rica en prote'na: Pollo, pavo, pescado, carne de res, carne de cerdo, leche y productos de leche, frijol, lentejas, soja y productos de soja, nueces y semillas y mantequillas hecho de nueces o semillas.
- S' usted es vegetariano, es decir que usted solo come comidas de ra'z planta, usted necesita tomar más cuidado en asegurar que esta comiendo suficiente prote'na al d'a.
- Pregunte s' esta disponible una dietista registrada / nutricionista quién tiene sabidur'a en VIH y puede hablar con usted.

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Pregunta 5. Al d'a, como menos de cuatro porciones de pan, cereal, arroz, pasta/ macarrones, tortilla, galleta, etc.

Estamos hablando principalmente de la energ'a para el cuerpo. Algunos de los más importantes alimentos son los carbohidratos. Es importante comer carbohidratos en cada comida. S' no come las comidas que proveen energ'a por lo menos cuatro veces al d'a, es probable que usted no este obteniendo los carbohidratos que su cuerpo necesita. Carbohidratos son importante en su habilidad de usar otros alimentos como prote'na, vitaminas y minerales en la manera más ventajosa para su salud. En adicional de energ'a, casi todos los carbohidratos proveen algo de prote'na, fibra, y tambien vitaminas y minerales. Asegure comer carbohidratos ricos en fibra todos los d'as. Fibra ayuda tener excremento con regularidad, bajar colesterol y triglicéridos y mantener azúcar sangu'nea en bajo buen control. Los carbohidratos altos en fibra son fruta, vegetal, cereal o pan de grano entero o trigo, avena, frijol cocido, lentejas y granos enteros. Aqu' estan algunas maneras de determinar s' usted esta obteniendo los carbohidratos que usted necesita.

- Escriba las comidas que usted come en un d'a. Luego compare la cantidad de carbohidratos que usted obtiene en sus comidas con la cantidad recomendada.
- Pide que su proveedor médico revise su lista de comidas que come al d'a.
- Usted necesita por lo menos 8 o más porciones de carbohidratos al d'a. Revise la Guia de Comidas para obtener una idea de cuales comidas contienen carbohidratos y la cantidad de una porción.
- Pregunte s' esta disponible una dietista registrada / nutricionista quién tiene sabidur'a en VIH y puede hablar con usted.

Escrutinio rápida de nutrición

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Pregunta 6. Al d'a, como menos de tres porciones de frutas o vegetales.

¡Coma frutas y vegetales! Frutas y vegetales son la mejor manera de conseguir casi todas las vitaminas y minerales que usted necesita. Si usted no come frutas y vegetales por lo menos tres veces al d'a, es muy probable que usted no este obteniendo las vitaminas y minerales que necesita su cuerpo. Es ideal intentar comer por los menos cinco porciones de frutas y vegetales en cual quier combinación al d'a. Comer frutas y vegetales con otras comidas ricas en prote'na y energ'a ayuda su cuerpo usar lo maximo de todos los alimentos que usted ingiere. Si tiene diarrea y necesita ayuda, consulte una dietista registrada o nutricionista con sabidur'a en VIH.

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Pregunta 7. Al d'a, consumo menos de dos porciones de productos lácteos como leche, queso, yogurt, etc.

Leche es un importante fuente de various alimentos que usted necesita, incluyendo calcio, prote'na, riboflavina, vitamina A, y vitamina D. Todos necesitan calcio diario, pero consiguiendo lo suficiente calcio al d'a puede ser dif'cil s' usted no toma leche o come otros productos lácteos. Todas las mujeres, especialmente mujeres encinta, necesitan por lo menos cuatro porciones de leche o productos lácteos cada d'a.

S' usted no puede tomar leche o comer queso o otros productos lácteos hechos de leche, pida información sobre como conseguir lo adecuado de calcio de otras comidas. Recuerde, leche y productos lácteos tambien son buen fuentes de prote'na. S' usted no esta incluyendo leche o productos lácteos en su dieta, asegure que este recibiendo suficiente prote'na de otras comidas.

Tambien es recomendable inspecciónar s' usted tiene problema para digerir leche. Éste problema se llama intolerancia a lactosa. S' tiene intolerancia a lactosa y quiere tomar leche, pruebe leche y productos lácteos con menos lactosa o sin lactosa, o enzimas para digerir lactosa. Preguntele a su proveedor médico por ayuda.

Otros alimentos que son una buen fuente de calcio:

<u>Alimentos</u>	<u>Porcion</u>	<u>Calcio/porcion</u>
Frijol	1/2 taza	45 miligramos
Verduras verde	1/2 taza	99 miligramos
<i>Tofu</i> con sulfito de calcio <i>Tofu</i> = producto del frijol soja	1/2 taza	258 miligramos
Jugo de naranja fortificado con calcio	6 onzas	260 miligramos

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Pregunta 8. Casi todos los días tomo tres o más bebidas de alcohol como cerveza, licor, o vino.

Tomar alcohol en exceso causa cambios en la manera en cual su cuerpo trabaja. Por ejemplo, alcohol aumenta la necesidad de algunas vitaminas y minerales para ayudar su hígado disponer del veneno de alcohol. Al mismo tiempo causa que pierda los alimentos guardados en su cuerpo. Alcohol también irrita y daña los intestinos y interfiere con la absorción de la comida que usted come. Además, personas que toman tres o más bebidas a veces no comen por tomar alcohol, y no reponen los alimentos necesarios al día.

Alcohol se ha demostrado ser inmunosupresor y puede disminuir las células T-ayudantes (CD4). Alcohol, medicamentos y drogas hacen que su hígado trabaje más duro. Muchos de los medicamentos para combatir el VIH no deben ser tomados con alcohol. Definitivamente evite el alcohol si usted tiene altos triglicéridos o hepatitis. Hepatitis es la inflamación del hígado causado por el virus. Si usted está preocupado por tomar en exceso, pide ayuda de su proveedor de cuidados médicos.

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Pregunta 9. No siempre tengo suficiente dinero para comprar la comida que necesito.

Asegure informarle a su proveedor de cuidados / servicios médicos que no tiene suficiente dinero para comprar comida. Casi todas las comunidades tienen organizaciones que ayudan conseguir comida, o dinero en emergencia o termino largo. Lo siguiente son ideas:

Despensa de comida para emergencias / banco de comida:

Un banco de comida o despensa de comida de emergencia provee comida limitada a personas con necesidad. Algunos dan cupónes para comida que pueden ser usados para comprar comida en el mercado. Tiene que tener una referencia escrita de su trabajador de casos sociales o proveedor médico para demostrar que hay una necesidad. Despensa de comida de emergencia / banco de comidas casi siempre son manejados por iglesias o otras agencias de servicios de la comunidad.

Unos de los más grandes bancos de comida son:

Project Angel Food (Los Angeles)
Project Open Hand (San Francisco)
God's Love We Deliver (New York)
MANNA (Philadelphia)
Meals on Wheels (Nacional)

Estampillas de comida:

Estampillas de comida son cupónes que pueden ser usado para comprar comida en los mercados. En algunos estados, se usa un carta con credito para comprar comida. Los cupónes o crédito son emitidos cada mes y dado gratis a las personas quién califican. S' usted quiere saber s' califica, contacte el departamento de servicios sociales y humanos más cercano a usted en el condado en cual vive.

Cocinas que sirven comida:

Algunas comunidades tienen cocinas que sirven comidas calientes y listos para comer para personas quién desean ir libremente. No se necesita una referencia ni documentos. Cocinas que sirven comida se encuentran en algunas iglesias y centros de la comunidad.

El programa de mujeres, infantes y ni-os. *Women, Infants and Children (WIC)*:

Éste programa provee asistencia con comida y salud nutricional para mujeres encinta o lactando, infantes y ni-os. Para informarse s' usted califica para el programa de WIC, pide una referencia de su proveedor médico.

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Pregunta 10. No tengo ningún lugar donde cocinar ni mantener mis alimentos frescos.

No tener un lugar donde cocinar o guardar comida puede presentar problemas a su salud.

Asegure avisar su proveedor médico de su situación. Varias comunidades ofrecen lugares donde personas pueden ir para dormir y comer. Por ahora hay algunas comidas que no necesitan ser cocinadas ni refrigeradas. Pregunte por más información sobre ideas de como comer estos tipos de comida.

Comidas que no necesitan estufa, horno ni refrigerador:

Pan con crema de mani y jalea – (jalea necesita ser refrigerada después de abrir)

Pasas, dátil, higo, y otra fruta seca

Fruta enlatada y compota de manzana, jugo (necesita refrigerador después de abrir)

Nueces, cacahuates, anacardo, almendra, nueces de Brazil y otros nueces

semilla de girasol r y calabaza

Galletas: saladas, Ritz, de harina de trigo entero

Atún, sardina, pollo o jamón y otras carnes enlatadas para una persona

Platano, manzana, pera, naranja Cereal seco

Suplementos de nutrición: Ensure, Boost y otros (refrigerar s' sobra)

Necesita estufa/platado caliente/microonda pero no refrigerador (solo s' sobra):

Crema de elote, espagueti, chile con carne molida enlatados

Caldos enlatados

Frijoles o chicharos enlatado

Avena instantáneo o Cream of Wheat

Macarone con queso de caja

Cocoa instantáneo de polvo

Palomitas

Papas al horno

Pure de papa

Necesita refrigerador pero no estufa/plato caliente/microonda:

Jugos

Variedad de fruta fresca

Algunos vegetales frescos

Néctar

Carnation Instant Breakfast (después de abrir)

Queso requesón

Yogur

Bud'n instantáneo

Queso con galletas o pan

Sandwich de jamón o salchicha de Bolonia o otra carne fria, y queso

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Pregunata 11. No tomo ningún suplemento de vitaminas ni minerales.

Personas infectadas con VIH necesitan más vitaminas y minerales. Es muy probable que usted tenga que tomar una multivitamina con minerales diario en la mañana y en la tarde. Estudios indican que personas con VIH pueden tener deficiencia en algunas vitaminas y minerales como la vitamina B-12, ácido fólico, vitamina B-6, zinc y selenio. Más evidencia indica que beta-caroteno, vitamina E y vitamina C pueden ser importantes también.

Algunos proveedores médico recomiendan con regularidad vitamina B-complejo diario con una multivitamina con minerales y antioxidantes sin hierro. Lea la tiqueta de sus suplementos. Pida ayudar de su proveedor médico para conseguir suplementos de vitaminas y minerales. Lugares o organizaciones donde usted podrá conseguir suplementos gratis o por un costo mínimo son: su clínica médica, farmacia, club de compradores, ADAP, Medicaid, o una organización que provee servicios a la comunidad.

Al no tomar por lo menos una multivitamina con minerales diario puede poner su salud nutricional a riesgo. Recuerde tomar una multivitamina con minerales en la mañana y una en la tarde. Nunca tome dos multivitaminas con minerales al mismo tiempo por que su cuerpo solo absorbe lo que necesita.

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Pregunta 12. Frecuentemente sufro de uno o más de los siguiente: diarrea, náusea, acidez, inflamación del estómago, vómitos, falta de apetito, cansancio, úlcera gástrico.

Estos son algunos s'ntomas que impiden su habilidad de comer y son s'ntomas muy comunes en personas con VIH/SIDA. Cual quier s'ntoma puede impedir su habilidad de comer y obtener los alimentos y nutrición necesarios para usted. La combinación de cual quier de estos s'ntomas puede causar graves problemas en su salud nutricional. S' tiene algun s'ntoma, consulte una dietista registrada o nutricionista con sabidur'a en VIH.

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Pregunta 13. Tomo uno o más de los siguientes medicamentos: AZT, ddI (Videx), ddC (Hivid), D4T (Zerit), etc.

Cual quier de estos medicamentos pueden hacer que se sienta más y sin el deseo de comer. Algunos efectos secundarios son: boca seca, diarrea, nausea y vómito. Los medicamentos tambien pueden cambiar el sabor de la comida. S' usted toma medicamentos y tiene algun efecto secundario, hable con su proveedor medico. Hay sugerencias que pueden ayudar controlar estos efectos secundarios. Pida información sobre los efectos nutricional de los medicamentos para el cuidado de VIH.

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Pregunta 14. Cada d'a fumo cigarillos, puros o mastico tabaco.

Tabaco puede ser un problema para el sistema inmuno. S' usted usar tabaco, considera usar menos o dejar de usar. Fumar disminue la habilidad de combatir infecci3n en los pulm3nes. Personas qui3n fuman, frecuentemente tienen bronquitis, neumon'a, y sinusitis. Personas qui3n fuman son m3s probable de tener una infecci3n respiratorio por que fumar baja las celulas T-ayudantes (CD4) y aumenta las celulas T-supresi3n (CD8). Estos cambios en las celulas T disminue la habilidad de combatir infecci3n en los pulm3nes y sangre. El uso de marijuana tambien puede causar estos cambios y problemas. Fumar tambien disminue la disponibilidad de las vitaminas B-6, B-12, y 3cido f3lico. Fumar disminue el apetito y la cantidad de comida que come. Las calor'as y alimentos que usted ingere pueder ser menos. Para algunas personas, fumar causa que tomen m3s caf3 o alc3hol. Fumar tambien cambia el sabor y olor de comidas y bebidas. Fumar tamien aumenta demasiado su riesgo de enfermedad del coraz3n; que hoy en d'a es una nueva complicaci3n metab3lico (alto colesterol, triglic3ridos, az3car en la sangre, causadado por la terapia de combinar medicamentos.

Hable con su proveedor m3dico o manejador de casos sociales para m3s informaci3n y ayuda para dejar de fumar y usar tabaco.

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Pregunta 15. Frecuentemente no tengo ganas de comer, cocinar, ni ir a comprar comida.

Sentirse enfermo es un grande problema. En veces no tener ganas de cocinar o comer puede causar que no coma. S' sigue sintiendose má l puede enfermarse más y más. Si físicamente no puede ir de compras o cocinar, pida ayudar, pruebe las comidas entregadas a su casa, o pida que su amigo vaye de compras y cocine por usted. No tener el deseo de cocinar o ir de compras no es lo mismo que no poder hacerlo físicamente. S' usted no le importa y no quiere ir de compras ni cocinar, es probable que sufra de depresión. Son pocas las personas con VIH quién escapan la depresión. S' la depresión persiste, necesitara ayuda. No espere, hable con su proveedor médico o hasta con un amigo de como se siente y obtenga ayuda hoy.

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Pregunta 16. Tengo problemas del estómago cuando consumo productos lácteos.

El dilema de los productos lácteos. Los problemas típicamente son inflamación del estómago, gas, calambre y diarrea. La razón más común de este problema se llama intolerancia a lactosa. El cuerpo no puede digerir ni absorber la lactosa que es la azúcar en la leche y productos de leche. A veces se puede comer queso duro o yogur sin problema. Productos como Lact-Aid® y Dairy Ease® ayudan a digerir la lactosa. También hay productos de leche sin grasa ni lactosa. Pruébelos.

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Pregunta 17. Tengo problemas del estómago cuando como comidas altas en grasa.

Un problema común en personas con VIH es tener un estómago sensible a comidas. Frecuentemente el problema es relacionado a grasa. Grasa es más difícil de digerir que otros alimentos. Grasa toma más tiempo de irse del estómago en personas con VIH. A veces el forro del intestino está dañado y impide la absorción de los alimentos. Si esto es un problema para usted, pida información y ayuda. Hay comidas que son nutritivas con menos grasa.

Evite comidas fritas.

Coma comidas cocinadas a la parrilla, horno o hervidas.

Use grasa y aceite en moderación.

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Pregunta 18. Tengo problemas con mi dentadura, boca o habilidad de tragar (como afta/ candidiasis bucal) que hacen dif'cil que yo coma.

Sentir dolor al comer es un problema comun que impede que coma lo suficiente. A veces tener mal enc'a o malos dientes son el problema. Asegure ver un dentista y mejore su cuidado dental.

Candidiasis bucal (afta) es muy comun y puede ser tratado con medicamentos. S' tiene estos problemas es importante que usted siga comiendo. Pida información y ayuda.

Consejos para tartar problemas de la boca, dientes, y tragar:

- ? Gargariza con agua tibia y bicarbonato de sodio varias veces al d'a. No lo tome.
- ? S' sus enc'as son sensible o s' siente dolor a cepillar sus dientes, use un escobillón de algodón en vez de un cepillo de dientes.
- ? Use un enjuagatorio comercial sin alcóhol diluido en agua.
- ? Use un sorbeto/popote para tomar liqu'do.
- ? Coma las comidas en temperaturas moderadas.
- ? Coma comidas bajas en ácido.

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Pregunta 19. Tengo que vigilar lo que como debido a mis problemas de salud como: diabetes, presión alta, problemas del riñón o hígado, etc.

S' usted tiene alguna de estas enfermedades, usted ya necesita ayuda nutricional especial.

Tener VIH puede causar mas problemas. Asegure de hablar con su proveedor médico sobre sus enfermedades.

Pregunte s' esta disponible una dietista registrada / nutricionista quién tiene sabidur'a en VIH y puede hablar con usted. S' no, llame 1-800-366-1655 y pregunte por una dietista registrada / nutricionista quién tiene sabidur'a en VIH y vive en su area.

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Pregunta 20. Tomo uno o más de los siguientes: Megace, Marinol, suplementos nutricional, etc.

Estos medicamentos y suplementos son para mejorar su salud nutricional. Algunos son para aumentar de peso, comer más o aumentar músculo. Es importante comer comidas balanceadas. Una dietista registrada puede ayudarle escojer comidas balanceadas. Pregunte s' esta disponible una dietista registrada / nutricionista quién tiene sabidur'a en VIH y puede hablar con usted.

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Pregunta 21. Para mujeres. Yo estoy encinta/embarazada o estoy dando el pecho.

Hay consideraciones nutricional especialmente para mujeres con VIH. Pidale a su proveedor médico por información. Mujeres encinta o lactando necesitan más calor'as y otros alimentos. S' usted esta encinta y tiene VIH, asegure hablar con una dietista registrada con sabidur'a en VIH. S' no, llame 1-800-366-1655 y pregunte por una dietista registrada / nutricionista quién tiene sabidur'a en VIH y vive en su area.

Dar pecho necesita más calor'as que estar encinta y no es recomendado para mujeres con VIH. Al dar pecho hay el riesgo de transmitir VIH via le leche maternal. En los Estados Unidos tenemos buen saneamiento, agua limpia y la habilidad de proveer fórmula. S' usted tiene VIH, es recomendado que usted le de fórmula a su bebe.

NUTRICION

Consejos de Alimentacion para el VIH

Existe una gran relación entre lo que usted come y la habilidad de su sistema inmunológico para combatir enfermedades. El comer alimentos saludables es especialmente importante para poder aumentar sus fuerzas físicas para que usted pueda disfrutar de la vida lo más normalmente posible cuando usted es VIH positivo. **La buena nutrición es una coterapia** que le puede ayudar a llevar al máximo el manejo médico del VIH. Una nutrición agresiva puede prevenir o demorar la pérdida de sus músculos. Este es un proceso que se llama desgaste VIH. Los estudios demuestran que su salud nutritiva es un factor importante que influye en la sobrevivencia del VIH. Actualmente no hay cura para el VIH/SIDA, pero **usted puede afectar el proceso de la enfermedad y mejorar la calidad de su vida manteniendo una actitud positiva y un estilo de vida saludable.** Algunos de los cambios que usted puede hacer para tener un estilo de vida saludable incluyen: (1) seguir la intervención médica apropiada para tratar las infecciones; (2) escoger alimentos saludables; (3) manejar las tensiones de una manera positiva; (4) hacer ejercicios en forma regular, preferiblemente con pesas; y (5) integrar las terapias naturales y otras terapias en el manejo de su plan de salud. Todas estas terapias trabajan juntas para ayudarle a su sistema inmunológico a combatir el VIH.



Las personas con VIH/SIDA tienden a perder musculatura y las reservas de proteínas junto con diferentes cantidades de pérdida de grasas. Hay tres razones principales por las cuales usted puede perder peso, experimentar pérdida de los músculos y como resultado desarrollar malnutrición relacionada al VIH. Si tiene poco apetito, es posible que no esté comiendo suficiente proteínas, calorías, vitaminas y minerales que su cuerpo necesita; el metabolismo de su cuerpo se acelera cuando hay infecciones; y por esto usted necesita calorías y proteínas adicionales en sus comidas para mantener su peso; y si usted tiene diarrea crónica, su cuerpo pierde calorías, proteínas, vitaminas y minerales.

Es muy importante mantener su tejido muscular fuerte, para llevara cabo las funciones del cuerpo y ayudarle a procesar los medicamentos. **La meta primaria de la nutrición de las personas con VIH es agadurles a mantener y aumentar su peso muscular.** Puede hacer esto comiendo comidas y tomando líquidos con muchas calorías para que su cuerpo no use su tejido muscular para extraer energía durante las infecciones. Las siguientes comidas le da a su cuerpo energía: almidones complejos y carbohidratos, azúcares simples y grasas. Usted también necesita alimentos que le puedan proveer a su cuerpo con proteínas para poder aumentar y mantener su musculatura. Puede escoger una combinación de fuentes de proteína animal o una combinación de proteína vegetal que se puedan complementar, dependiendo de su preferencia. También necesita hacer ejercicios diarios y repetitivos para aumentar la fuerza muscular.

Es bien importante el comer pequeñas cantidades durante el día, aun que no tenga hambre. Un plan de comida **alto en proteínas, y calorías, que incluya comidas altas en carbohidratos complejos, y que incluya cantidades moderadas de grasas es el mejor para poder prevenir el desgaste muscular con el VIH.** Esto puede cambiar si usted tiene síntomas específicos o algún otro problema médico. Su nutricionista o médico le pueden ayudar a modificar sus hábitos de comer si tiene algún síntoma en específico. Esta guía le provee consejos para aprovechar al máximo las proteínas y la energía para ganar un buen peso. Además le provee recomendaciones para tomar suplementos de vitaminas y minerales, sugerencias para el manejo de problemas nutricionales que le pueden afectar en su habilidad de comer, y consejos básicos de manejo de comida.

Adapted from God's Love We Deliver- New York

NUTRICION

Recomendaciones Para un Plan de Comida Alto en Calorías

Cuando usted es VIH positivo, es importante que coma suficientes calorías, porque el VIH aumenta las necesidades de energía. Usted tiene que proveerle a su cuerpo con muchos alimentos altos en energía que se llaman **carbohidratos complejos o almidones**, incluyendo: pan y cereales de grano entero, pastas, papas y arroz. Las frutas y los vegetales le dan a su cuerpo energía rápida además de vitaminas y minerales. **Las azúcares simples** también le dan a su cuerpo energía adicional. **Las grasas le** dan calorías, pero no son buenas fuentes de energía para sus músculos. Las grasas le dan energía adicional para quemar, y también sirven para aumentar las grasas del cuerpo. Si usted no come suficiente calorías a través de sus carbohidratos, su cuerpo obtendrá la energía de sus músculos. A lo mejor usted no tiene apetito cuando está enfermo y cuando nota que está perdiendo peso poco a poco. Es bien importante el comer pequeñas cantidades durante el día aún si no tiene hambre.

Para aumentar su consumo de calorías:

- ❖ Coma seis comidas pequeñas durante el día
- ❖ Tenga meriendas cerca de su cama o al lado del televisor.
- ❖ Empaque comida que no sea perecedera para merendar cuando esté fuera de su casa.
- ❖ Haga ejercicios ligeros antes de comer para aumentar su apetito.



Los almidones complejos y los carbohidratos son el mejor tipo de energía para crear y mantener los tejidos musculares. Consuma porciones abundantes de: Pastas (de trigo, macarrones enriquecidos, espaguetis o fideos). Arroz (“brown” o blanco), cebada. Viandas (yuca, batata, plátanos verdes y maduros, papas, pana.) Avena, harina de trigo, harina, harina de arroz, harina de maíz, y otros cereales secos. Panes, tortillas, galletas y panqueques. Habichuelas rojas, blancas, rositas, lentejas, frijoles negros, garbanzos y gandules (cocidos).

Las azúcares simples le dan energía adicional para aumentar la musculatura y ganar grasas. Para energía adicional: Meriende con frutas frescas, frutas secas como pasas, dátiles, melocotones, piña, papaya y ciruelas. Añada jalea, mermelada, miel, y “maple syrup” a los cereales calientes y fríos, panqueques y “waffles”. Añada miel, azúcar, melaza y “maple syrup” a los batidos, té caliente o frío, “Kool-Aid” y limonada. Añada frutas frescas o secas y “maple syrup” a las helados y yogur. Meriende con bizchocos, pasteles dulces y galletitas después de o entre comidas.

Las grasas le dan energía adicional para utilizar y también para aumentar las grasas del cuerpo. Consuma cantidades moderadas.

Añada mantequilla, margarina, crema agria, requesón, queso crema y mantequilla de maní (cacahuete) a los emparedados, galletas, panqueques, buñuelos dulces (“waffles”) y el cereal caliente.

Añada salsa o “gravy” a la carne, el pollo, el pavo, papas majadas o papas al horno.

Añada crema agria, requesón, queso crema o rallado, mantequilla o margarina a las papas majadas o al horno. Añada aguacate, aceitunas y aderezos a las ensaladas.

Si usted no tiene problema con intolerancia a la lactosa, añada leche condensada, leche entera y crema a los cereales calientes y fríos.

Adapted from God's Love We Deliver- New York

NUTRICION

Guia Para un Plan de Comida Alto en Proteinas

Es bien importante consumir suficientes proteínas cuando su cuerpo está combatiendo infecciones o recuperándose de infecciones. Las proteínas le ayudan a construir el tejido muscular y también le ayudan a su sistema inmunológico a combatir infecciones. Usted puede obtener las proteínas por medio de productos animales o vegetales. Consuma cantidades abundantes de proteínas en cada comida. Estas fuentes incluyen:

Fuente de Proteína Animal

- ❖ Pescado, pollo, pavo, carnes rojas (ternera, oveja (cordero), res, cerdo, conejo y venado) y órganos (hígado, sesos)
- ❖ Huevos, queso, productos lácteos

Fuente de Proteína Vegetal

- ❖ Granos cocidos (habichuelas rojas, frijoles negros, habichuelas sojas, gandules y garbanzos)
- ❖ Guisantes verdes y lentejas
- ❖ Tofú (glutén de trigo)
- ❖ Leche de soja fortificada, (leche de arroz, leche de almendra añadiéndole proteína en polvo)
- ❖ Nueces (almendras, avellanas) y mantequilla de nueces (de avellana o mantequilla de maní)
- ❖ Semillas (de calabaza o de ajonjolí)

Sugerencias para Aumentar las Proteínas en sus Comidas:

Use **huevos duros para hacer** emparedados de ensalada de huevos; añada pedazos de huevo duro a sus ensaladas; consuma postres que estén hechos con huevos (galletitas, flanes, pudines, y bizcochos hechos con huevos); añada “eggbeaters” o proteína en polvo a sus batidos; y use tostadas francesas para sus emparedados.

Añada pedacitos de carne, pollo o pavo a sus sopas, ensaladas o salsas. **Añada atún, salmón, camarones o cangrejos a sus guisos y ensaladas.**

Ralle queso y añadasele a las salsas, sopas, tortillas, papas asadas y vegetales al vapor; añada pedacitos de queso a sus ensaladas de hojas verdes, ensalada de pollo o de papa; trate el requesón con frutas, ensaladas verdes o mezclado en sus guisos o con sus pastas al horno. El queso con galletas es una buena merienda entre comidas. También puede comer queso con pan o con frutas.

Use **leche, “Lactaid” o leche de soja fortificada** en sus cereales calientes, sopas con crema o batidos de frutas. Coma yogur con cereales secos o frutas. Compre yogur que contenga un cultivo activo de “L. acidophilus.” El “acidophilus” es una buena bacteria que reduce la cantidad de lactosa en el yogur para que usted lo pueda digerir más fácilmente que la leche regular, especialmente si usted tiene problema con intolerancia a la lactosa. Si usted tiene diarrea como resultado de sus antibióticos, el yogur le ayuda a reducir la diarrea.

Úntele mantequilla (de maní, pistachio) al pan, tostadas, galletas, frutas frescas o vegetales crudos.

Añada habichuelas a las sopas y ensaladas; úntele habichuelas majadas al pan, galletas o vegetales crudos; añada tofú o proteína vegetal a las sopas, ensaladas o guisados.

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La Diarrea

La diarrea puede ser un resultado de infecciones, medicamentos o cambios en sus intestinos. El tipo y el grado de la diarrea pueden variar dependiendo de la causa y de su tolerancia a alimentos específicos. La diarrea puede resultar en la pérdida de líquidos, y causar deshidratación. Las sugerencias siguientes le pueden ayudar a reducir los síntomas:

Tome suficientes líquidos con calorías para reemplazar lo que usted pierde cuando tiene diarrea crónica. Estos incluyen: jugo (de uva, arándano agrio, jugo de **naranja** diluido) ponche de **frutas, néctares (albaricoque, melocotón, pera, mangó y guineo),** té frío, limonada, “Gatorade”, “Kool-Aid” y suplementos líquidos nutricionales. El agua no se debe tomar en grandes cantidades porque no le da calorías o proteínas. Tome por lo menos ocho vasos de líquidos altos en calorías y proteínas diarios. Evite las bebidas alcohólicas y las que contengan cafeína, incluyendo: café, té negro, bebidas de chocolates y refrescos. Tome los líquidos a temperatura ambiente porque los líquidos fríos o calientes pueden empeorar su diarrea.

Evite la leche o los productos lácteos temporalmente para determinar si sus síntomas se mejoran. A las personas que no pueden tolerar los productos lácteos, le viene mejor comer yogur que contenga un cultivo de bacterias “Lactobacillus acidophilus” o productos bajos en lactosa como la leche “Lactaid” o la leche con “acidophilus.” Pregúntele a su nutricionista acerca de las pastillas o gotas de “Lactaid” (una fuente natural de la enzima lactosa que digiere los productos lácteos) para reducir los síntomas de inflamación, retortijones y la diarrea. Si usted no puede digerir productos bajos en lactosa, pruebe la leche de soja **o los suplementos** nutritivos líquidos.

Evite los alimentos grasosos o fritos porque estos pueden empeorar la diarrea. A lo mejor usted necesitará seguir una dieta baja en grasas si su diarrea es el resultado de la malabsorción de grasas. Si este es el caso, escoga las carnes sin grasas, y evite el añadir grasas a los alimentos. Ciertos suplementos nutritivos no tienen lactosa y son bajos en grasas, como por ejemplo “Lipisorb” o “Vivonex.” Para mejorar el sabor de estos suplementos en polvo, añádaselo a la limonada, los jugos o los néctares.

Evite comer la fibra tipo salvado (“bran”) en los alimentos, incluyendo: frutas frescas y vegetales crudos, semillas, nueces, granos enteros y maíz.

Pregúntele a su médico acerca de los medicamentos para controlar la diarrea como: “Imodium”, “Lomotil”, o “Paregoric.” El medicamento será diferente dependiendo de la causa de su diarrea. Una cuchara de Metamucil mezclada con jugo le puede ayudar a controlar la diarrea porque contiene fibra soluble, que puede aumentar “el bolo fecal” y también puede prevenir el estreñimiento.

Evite ciertos alimentos que le pueden causar retortijones o inflamación como: manzanas, habichuelas, repollo, brécol, coliflor, col, cebollas, pimientos verdes, cerveza y alimentos con especias.

Escoja alimentos y líquidos que son altos en potasio, un mineral que usted pierde cuando tiene diarrea. Algunas fuentes altas en potasio son: guineos, plantanos, pasas, papas, pescado, tomate, pollo, carnes, habichuelas secas. Líquidos, incluyendo: jugo de naranja, néctares de albaricoque, mango y pera, jugo “V-8” y Gatorade.

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La Importancia de los Líquidos

Es bien importante beber suficientes líquidos cuando usted es VIH positivo. Los líquidos le ayudan a prevenir la deshidratación, especialmente cuando usted está tomando muchas medicinas. Su cuerpo necesita muchos líquidos para poder limpiar su cuerpo de los residuos de medicinas en su cuerpo. Si usted está teniendo dificultad en mantener su peso, **tome líquidos altos en calorías** (jugos, néctares, jugo de frutas, té frío, limonada, “ginger ale”, sodas, “Gatorade” y “Kool-Aid”) y líquidos altos en calorías y proteínas (leche, leche batidos, leche “Lactaid,” leche de soya fortificada, “Ensure Plus,” “Resource Plus,” “Sustacal” y “Nutrament”) en vez de agua. **Tome por lo menos ocho vasos de líquidos diarios.** Tome más líquidos si usted está tomando muchas medicinas. Usted necesitará tomar más si su boca o lengua se resecan. Evite tomar bebidas que contengan cafeína, especialmente si usted tiene diarrea, porque estos hacen que su cuerpo necesite más líquidos. Bebidas que contienen cafeína incluyen: café, té negro y algunos tipos de sodas. Evite el tomar alcohol porque es bajo en nutrientes y también le pueden deshidratar.

Algunos gérmenes se pueden transmitir a través del agua. Estos le pueden enfermar si su número de células T es menos de 200. El “*Cryptosporidium*” el “*Mycobacterium Avium Intracelulare*” (MAI) pueden ser transmitidos a través del agua y causar síntomas similares al flú, incluyendo: dolor de estómago, diarrea, fiebre, náuseas y pérdida de peso. Si toma agua, compre agua carbonatada embotellada (seltzer), agua destilada o agua filtrada. Si toma agua del grifo, hiérvala por cinco minutos para matar los gérmenes y déjela enfriar antes de usarla en té frío, limonada, “Kool-Aid” o para diluir jugo de frutas concentrados. Los jugos de frutas embotellados son más seguros para si son pasteurizados.



El resecamiento de la boca puede ocurrir como resultado de no tomar suficientes líquidos o por tomar muchas medicinas. Además de tomar suficientes líquidos, las sugerencias siguientes le pueden ayudar a manejar este problema:

- ❖ Use salsa adicional, mantequilla, “gravies”, yogur o aderezo para mojar sus comidas.
- ❖ Moje su pan o galletas en su sopa, leche, jugo o chocolate caliente.
- ❖ Chupe dulces sin azúcar o dulces agrios, helados, hielo o goma de mascar para estimular la salivación.
- ❖ Duerma con un humidificador en su cuarto y con líquidos cerca de su cama para que tome por las noches si se siente con sed.



El estreñimiento puede ocurrir como resultado de no tomar suficiente líquidos, y no consumir suficiente, comida no comer suficiente fibra y no hacer ejercicio. El estreñimiento puede ser causado por algunas medicinas, especialmente la metadona o medicinas para el dolor hechas con narcóticos. Además de tomar más líquidos, las sugerencias siguientes le pueden ayudar a manejar este problema:

- ❖ Consuma comidas altas en fibras insolubles: cereales y panes de grano entero, futas y vegetales frescos, habichuelas y garbanzos cocidos, nueces y semillas.
- ❖ Incorporer ejercicios aeróbicos regularmente a su rutina diaria (todo con moderación).
- ❖ Pregúntele a su doctor por medicinas para el estreñimiento.

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Dolor de Boca y Dolor al Tragar

Dolor de Boca

- ❖ Evite fumar cigarillos o tomar alcohol porque pueden irritarle el interior de su boca.
- ❖ Consuma alimentos fríos para adormecer sus papilas del gusto por ejemplo: sorbete, helados de frutas, yogur helado, o mantecados.
- ❖ Consuma alimentos suaves y blandos incluyendo: compota de manzana, avena, harina de maíz, harina de trigo, sopas con crema, natillas, pudín, carnes cocidas y huevos duros hervidos y majados.
- ❖ Tome jugos y néctares sin ácidos. Evite los alimentos con ácidos (por ejemplo, jugos cítricos, salsa de tomate y vinagre), alimentos salados y alimentos con especias (picantes).

Dolor al Tragar

- ❖ Use un sorbeto para tomar y una taza o un vaso en vez de un plato para comer sopas. Inclíne su cabeza hacia atrás para tragar más fácilmente.
- ❖ Escoga alimentos de textura suave (avena, harina de trigo, frutas enlatadas, requesón, yogur, pudín o flán.) Licúe los alimentos en una licuadora o procesador de comidas si usted no puede tolerar la comida suave.
- ❖ Consuma los alimentos a temperatura ambiente. Evite el comer alimentos muy calientes o muy fríos.
- ❖ Pruebe diferentes suplementos nutritivos líquidos que son altos en calorías y proteínas, además de los alimentos suaves o licuados. Por ejemplo: “Ensure Plus”, “Sustacal”, “Resource Plus” y “Nutrament”. Usted tiene que determinar lo que le sabe rico. Pruebe mezclando en una licuadora las frutas con líquidos de sabor a vainilla y fresa o mezcle un guineo con líquido de sabor a chocolate. Si está bajo peso, pregúntale a su nutricionista, a su médico o a su trabajadora social cómo obtener suplementos nutritivos a través de Medicaid o ADAP PLUS.



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Cambios en Gusto

Algunas infecciones orales como “candidiasis” y algunas medicinas pueden cambiarle el gusto y el poder disfrutar sus alimentos favoritos. A lo mejor usted tiene las papilas del gusto más sensitivas y necesita comer alimentos suaves, o a lo mejor usted tiene un sabor agrio y metálico en la boca. Las sugerencias siguientes le pueden ayudar cuando usted tiene cambios en el gusto:



- ❖ Antes de comer, enjuágese la boca con una mezcla de una cucharadita de agua oxigenada o bicarbonato de soda por una taza de agua tibia destilada. Enjuágese la boca pero no lo trague. No se olvide de tomar su medicina contra el hongo regularmente para prevenir infecciones con cándida “thrush” oral o del esófago si esto es un problema para usted.
- ❖ Use un cepillo de dientes con cerdas suaves y una pasta de dientes con sabor para limpiar los dientes además de la lengua, antes y después de comer.
- ❖ Los alimentos ácidos pueden esconder un gusto metálico. Pruebe tomando jugo de naranja, arándano agrio “cranberry”, jugo de piña y limonada.
- ❖ Añada vinagre, jugo de limón, encurtidos o salsa con condimento a sus alimentos.
- ❖ Ponga a marinar la carne, el pollo, el pavo, el pescado, o “tofú” en vinagre, vino, aderezo, o salsa de soja.
- ❖ Añada hierbas frescas o secas a sus alimentos (romero, tomillo, albahaca, orégano o comino.)
- ❖ Pruebe alimentos con texturas diferentes (nueces picadas o semillas) para hacer sus comidas más interesantes.
- ❖ Consuma alimentos fríos, por ejemplo: sorbete, helados de frutas, yogur helado o mantecados para adormecer sus papilas del gusto.

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Poco Apetito y Nauseas

Poco Apetito

- ❖ Consuma seis comidas pequeñas diariamente. Tenga meriendas cerca de su cama o al lado del televisor en su casa o apartamento.
- ❖ Haga ejercicios ligeros, ejercicios de estiramiento, y de respiración profunda antes de comer.
- ❖ Coma sus alimentos favoritos, no importa si es solamente una cantidad pequeña.
- ❖ Tome un suplemento nutritivo o un batido de fruta preparada en la casa, en lugar de una de sus comidas.
- ❖ Pregúntele a su médico o nutricionista con respecto a las medicinas que le pueden estimular su apetito incluyendo: “Marinol”, “Megace”, y “Periactin”.



Náuseas y Vómitos

Las náuseas y los vómitos pueden ser resultados de alguna infección o también de algunas medicinas y tratamientos. Las sugerencias siguientes pueden ayudarle a manejar los síntomas:

- ❖ Consuma comidas pequeñas con frecuencia durante el día en vez de dos o tres comidas grandes, y tome líquidos altos en calorías, media hora después de comer.
- ❖ Evite el comer alimentos grasosos, fritos, o con muchas especias (picante). En su lugar, escoja alimentos fríos y con pocas especias picantes.
- ❖ Escoja alimentos secos como los cereales en cajas, galletitas, tostadas “melbas” y bizcochos. Usted puede tener estos al lado de su cama o su silla favorita para que estén a su alcance.
- ❖ Consuma alimentos salados como galletitas, “pretzels” y palomitas de maíz (“popcorn”) sin mantequilla para reducir las náuseas.
- ❖ No se acueste hasta por lo menos una hora después de comer. Espere a digerir los alimentos antes de dormirse.
- ❖ Consuma los alimentos fríos o a temperatura ambiente. Los alimentos calientes pueden empeorar las náuseas.
- ❖ Evite comer sus alimentos favoritos cuando esté enfermo, pueden llegar a disgustarle porque los asocia con las náuseas. Si el olor de la comida le da náuseas, pídale a otra persona que le cocine y no se acerque a la cocina mientras se le prepara la comida.
- ❖ Una taza de té de hierbas con miel (por ejemplo, menta o manzanilla), o masticar la raíz del gengibre fresco a veces puede calmar un estómago con náuseas.
- ❖ Pregúntele a su médico acerca de alguna medicina para reducir las náuseas, por ejemplo “Compazine”, “Reglan” o “Marinol”. Si una medicina no le trabaja bien, su médico puede darle una medicina más fuerte.

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Bebidas Saludables Licuadas

Cuando usted es VIH-positivo, usted se sentirá algunos días sin deseos de comer. A lo mejor tiene ampollas en la boca o en la garganta que le hacen difícil el masticar y el comer. A usted a lo mejor le da diarrea cuando toma leche o come productos lácteos. Estas recetas le pueden ayudar a preparar bebidas sin lactosa o sin productos lácteos que son altos en proteínas o calorías para que usted pueda mantener su peso cuando tiene problemas al comer. Para preparar cada receta combine los ingredientes en una licuadora o procesador de comida a una velocidad alta por uno o dos minutos, hasta que esté suave. Trate de variarlas añadiéndole diferentes tipos de frutas para que no se canse de ninguna de las recetas.

Batido de Frutas

- 1 taza de leche de soja fortificada*
- 2 cdas. de azúcar o miel
- 2 cdas. proteína en polvo
- 1 cda. germen de trigo
- 1 cda. salvado (bran)
- 1 taza frutas en rebanadas

Este batido es alto en calorías, proteínas, fibra y no tiene lactosa.

Tome esto si tiene estreñimiento.

*Puede substituir leche "Lactaid," leche de arroz, o "Ensure" con fibra por leche de soya.

Piña Colada

- 1/2 taza de leche de coco
- 1 taza jugo de piña
- 1/2 taza de piña fresca o enlatada
- 4 cdas. proteína en polvo
- 1/4 del cuadro de tofu

Esta bebida es alta en calorías, proteínas y no tiene lactosa.

Tome esto para aumentar de peso.

Batido de Mantequilla de Maní y Chocolate

- 2 cdas. de mantequilla de maní
- 1 lata de 8 oz. de "Ensure Plus" con chocolate
- 1/2 "guineo" / plátano

Este batido es alto en calorías, proteínas, y potasio.

Tome esto si tiene diarrea debido a la intolerancia a la lactosa.

* Usted puede substituir leche de soja, "Sustacal" o "Resource Plus" por "Ensure Plus."

Bebida de Yogur Con Tres Frutas

- 1 taza de yogur de vainilla con un cultivo activo de "L. acidophilus"
- 2 cdas. proteína en polvo
- 1/2 t de mangó y melocotón en rebanada
- 1 taza de néctar de albaricoque
- 2 cdas. de azúcar o miel

Este batido es bajo en lactosa, alto en calorías, proteínas y potasio.

Tome esto si usted tiene diarrea.

Sorbete de Frambuesa

- 1 taza de sorbete de naranja
- 1/2 taza frambuesas congeladas
- 1 taza "CitriSource"
- 1/2 taza hielo picado
- 2 cdas. proteína en polvo

Este sorbete es alto en calorías, proteínas, y bajo en grasas. Tome este si tiene ampollas en la boca o diarrea.

Batido de "Lipisorb"

- 1/2 taza de néctar de mangó
- 1/2 taza de néctar de melocotón
- 1 taza de papaya y guineo en pedazos
- 5 cdas. de "Lipisorb" en polvo

Este batido es alto en calorías, proteínas, potasio y baja en grasas.

Tome este si tiene diarrea como resultado de la intolerancia a las grasas.

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Precauciones Con Los Alimentos

Tomar precauciones con los alimentos es muy importante cuando su sistema inmunológico está debilitado por el VIH. Los gérmenes pueden ser transmitidos a usted a través de las comidas que no estén completamente cocidas o manipuladas inapropiadamente. Una enfermedad transmitida por la comida lo puede enfermar mucho más. Los síntomas de intoxicación alimenticia pueden incluir fiebre náuseas, vómitos, retortijones y diarrea. Las recomendaciones siguientes le pueden ayudar a protegerse de la intoxicación alimenticia cuando usted está preparando o guardando la comida.

Al Preparar La Comida

- ❖ Lave bien las frutas y los vegetales con agua tibia y un detergente suave de lavar platos y un cepillo con cerdas suaves. Usted puede también lavar las frutas y los vegetales con una mezcla de media taza de jugo de limón y un galón de agua tibia. O usted puede quitar la cáscara o pelar las frutas y vegetales antes de comerlos.
- ❖ Cocine la carne, el pollo y el pescado hasta que estén bien cocidos, hasta que no tenga nada de sangre. No coma la carne, el pollo, el pescado o los mariscos crudos incluyendo “sushi” o almejas cocidas al vapor.
- ❖ Descongele las carnes y los pollos en un plato en la nevera, no a temperatura ambiente.
- ❖ Tome solamente la leche pasteurizada. La leche o los productos lácteos que no son pasteurizados pueden tener salmonela (bacterias).
- ❖ No use los huevos que tienen hendiduras en su cáscara. Hierva los huevos por lo menos cinco minutos o fría los huevos por lo menos tres minutos por cada lado. Evite los huevos que son escalfados ligeramente o cocidos solamente por un lado. Evite también los alimentos que contienen huevos crudos o que no están completamente cocidos, como: la mayonesa hecha en la casa, salsa holandesa, mantecados, ponche, bizcochos o mezclas de galletas hechas en la casa, y ensalada “Caesar”.
- ❖ No coma quesos suaves como “Brie” y “Camembert.” Tire a la basura el queso que tiene hongo.
- ❖ No coma directamente de un recipiente de almacenaje porque las bacterias de la boca pueden hacer que la comida se destruya más rápido. No sirva la comida con la misma cuchara con la que come.
- ❖ Haga una mezcla diluida de lejía, añadiéndole 1-2 cucharas de lejía por un galón de agua tibia. Use esta mezcla para limpiar los utensilios de cocina y las tablas de cortar alimentos antes y después de preparar la comida.
- ❖ Lávese las manos con agua tibia y jabón antes y después de preparar las comidas.



Al Guardar La Comida

- ❖ Ponga en la nevera la comida que no se comerá inmediatamente.
- ❖ Si está preparando una cantidad grande de comida, sepárela en recipientes pequeños y póngalos en la nevera para que la comida puede refrescarse más rápido y reducir el crecimiento de las bacterias.
- ❖ Tape la comida bien con un plástico o guárdela en recipientes herméticos para mantenerla fresca.
- ❖ No permita que el agua de la comida que está descongelando toque otra comida en la nevera.
- ❖ Refrigere todos los aceites para cocinar y para las ensaladas en la nevera. Los aceites pueden ponerse rancios cuando se guardan por mucho tiempo a temperatura ambiente.
- ❖ No coma las sobras que han estado guardadas en la nevera por más de dos días.
- ❖ No coma la comida después del día de expiración que está escrito en el recipiente.

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Recetas Básicas

Arroz Blanco

2 tazas de arroz de grano mediano
3 tazas de agua
4 cdas. de aceite de oliva
2 cdtas. de sal

En un caldero, caliente el agua hasta que hierva junto con el aceite y la sal. Enjuague el arroz y añada al agua hirviendo. Revuelva el arroz dos o tres veces, tape y cocine a fuego mediano hasta que el arroz esté seco y blando, aproximadamente 20 minutos.

Habichuelas

1 taza de habichuelas cocidas
2 oz. de jamón de cocinar en pedacitos
1/2 cebolla picadita
1/2 pimiento picadito
1 diente de ajo machacado
1/2 taza de salsa de tomate
2 cdtas. de aceite vegetal
1 cdta. de sal
1 taza de agua

Sofría en el aceite el jamón, el pimiento, la cebolla y el ajo. Añada el agua, la salsa de tomate, las habichuelas y la sal. Tape y cocine a fuego lento por 25 minutos.

Fricasé de Pollo

1 1/2 lb. de pollo
1 cda. de sal
1/2 cdta. de orégano
1 diente de ajo machacado
1/4 cucharadita de pimienta
1 cucharada de vinagre
1/2 lb. de papas medianas
1 hoja de laurel
2 oz. de aceite de oliva
1/2 taza de salsa de tomate
1/2 cebolla en rebanadas
1 taza de agua
5-8 aceitunas
1 cda. de alcaparras
1 pimiento maduro o morrones

Limpie el pollo y pártalo en presas. Adobe dos o tres horas antes de guisarlo. Ponga en un caldero con los demás ingredientes y el agua, revuelva y cueza a fuego lento y cubierto hasta que esté blando. Mueva de vez en cuando. Sazone y añada las papas. Continúe a fuego lento hasta que las papas estén blandas.

NUTRICION

Los Suplementos Vitamínicos con Minerales

Las vitaminas y los minerales son sustancias que su cuerpo no puede fabricar pero que necesita **en pequeñas cantidades para sobrevivir**. También se le conocen como micronutrientes. Las vitaminas y los minerales están envueltas en reacciones específicas en su cuerpo y se necesitan tomar con las comidas porque tienen que interactuar con las proteínas, las grasas y los carbohidratos para poder hacer su trabajo. Las personas saludables que comen una variedad de comidas a diario, usualmente no necesitan tomar un suplemento de multivitamina y minerales porque reciben lo que necesitan de la comida que comen. Si usted es VIH-positivo, usted necesita más de lo que la comida le puede proveer, especialmente si usted tiene poco apetito y no come las tres comidas, si su cuerpo está luchando contra las infecciones, o si usted tiene diarrea crónica.

Las deficiencias específicas de vitaminas y minerales puede aumentar la deficiencia inmunológica que es causada por el no comer suficiente calorías y proteínas. Estas incluyen: vitamina A, vitamina B-6, vitamina C, el zinc, el selenio, el hierro y el cobre. **Si usted es VIH-positivo y no tiene síntomas**, se beneficiaría al tomar un suplemento multivitamínico con minerales diario que sea por lo menos 100% de las Raciones Alimentarias Recomendadas en los E. E. U. U. (USRDA) . El USRDA es una norma fijada por el gobierno e indica las cantidades de cada nutriente que las personas necesitan para prevenir deficiencias y mantener la salud. Usted puede pedirle a su médico que le escriba una receta para un suplemento multivitamínico con minerales que puede ser cubierto por “Medicaid”. Si usted quiere más protección puede escoger el tomar un suplemento multivitamínico con minerales que tenga unos niveles más altos de las vitaminas y los minerales, además de los que el USRDA provee. Pero usted debe comprarlo porque actualmente no es reembolsable . Revise el contenido para asegurarse de no tome dosis muy altas que le puedan causar efectos secundarios. Ponga atención especial a su dosis de vitamina A (retinol), vitamina D, vitamina B-6, zinc, selenio, hierro y cobre.

Si usted es VIH positivo y sintomático, usted se beneficiaría al tomar dos suplementos multivitamínicos con minerales diario con sus comidas. Las investigaciones han demostrado que hay ciertas vitaminas y minerales de las que usted puede desarrollar deficiencias mientras que el VIH sigue progresando. Estas incluyen: vitamina B-12, ácido fólico, vitamina B-6, zinc y selenio. Usted puede pedirle a su médico que le ordene un examen para chequear los niveles de estas vitaminas y minerales en la sangre en el momento que usted tiene un examen “CBC,” para determinar si necesita una dosis más alta de vitaminas y minerales específicos que corrijan las faltas existentes. Algunas personas prefieren tomar dosis terapéuticas de vitaminas y minerales individuales para prevenir deficiencias o para aumentar el funcionamiento inmunológico. Si usted decide hacer esto y tiene el dinero para comprar estos suplementos, las dosis siguientes son recomendadas como seguras:

Vitaminas	Dosis Terapéutica	Minerales	Dosis Terapéutica
Vitamina A	10,000-15,000 IU/día	Zinc	50-75 mg/día
Vitamina B-6 (<i>pyridoxina</i>)	100-150 mg/día	Selenio	200-500 mcg/día
Vitamina C	1000-10,000 mg/día	Hierro	no es determinada
Vitamina E	60 mg alpha tocopherol /día		
Beta carotens	50,000 to 150,000 IU/día		

Adapted from God's Love We Deliver- New York

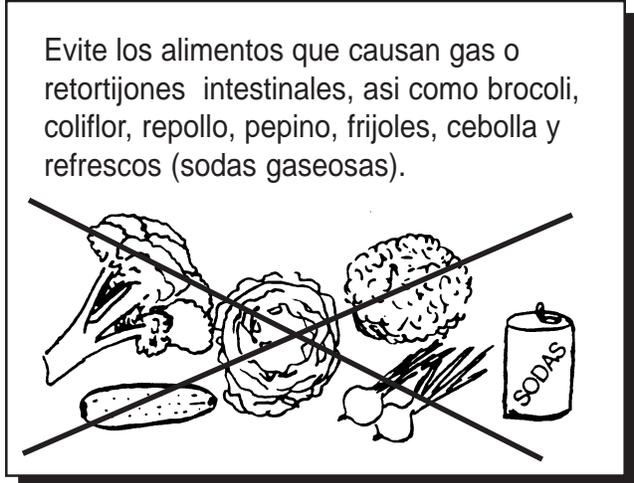
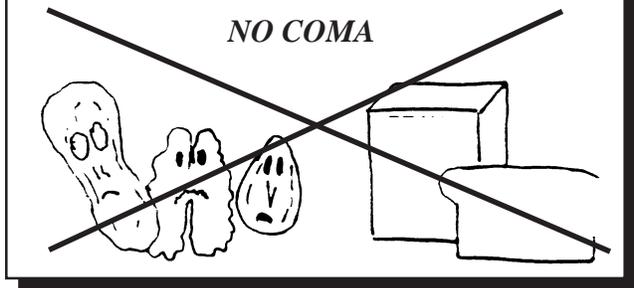
Guía Para La Nutrición

Diarrea

Disminuya la cantidad de fibra en la comida. **No Coma**, nuez, panes y cereales integrales.



No Tome bebidas con cafeína o alcohol.





Guía Para La Nutrición

La Diarrea

¿Cual es la causa? Puede ser las medicinas, los alimentos o las infecciones.

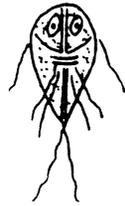
Las Medicinas



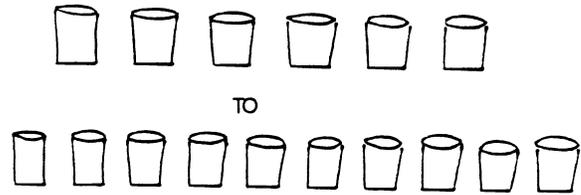
Los Alimentos



Los Microbios



Tome de 6 a 10 vasos de líquido todos los días como caldo, gelatina, néctares, o jugos (a menos que jugos de naranja, toronja, o limonada).



Tome líquidos que estan a temperatura tibia o ambiente porque los alimentos fríos o calientes aumentan la diarrea.

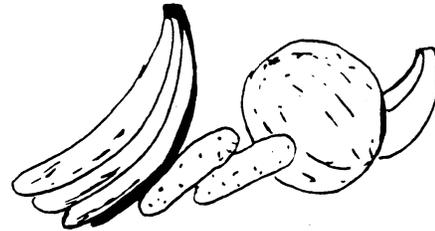


SI



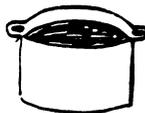
Temperatura Ambiente

Coma plátanos, batatas, melocotón para remplazar el potasio perdido.



Coma frutas y vegetales (verduras) cocidos o enlatados.

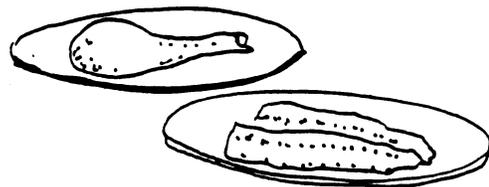
Vegetales Cocidos



Enlatados



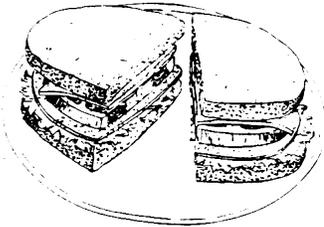
Disminuya la cantidad de grasa en la comida. Coma pescado, pollo sin piel y comida al horno en lugar de fritas.



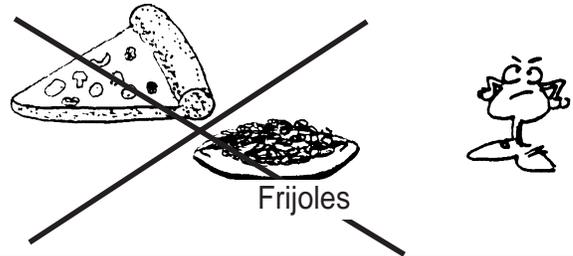
Guía Para La Nutrición

La Náusea y El Vómito

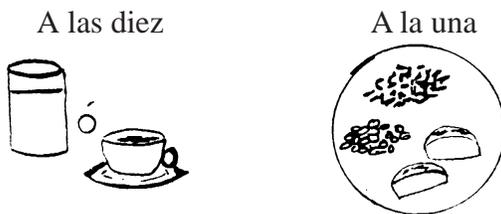
Coma comidas frías como un sandwich de carne fría, fruta o requesón que no tengan un aroma fuerte.



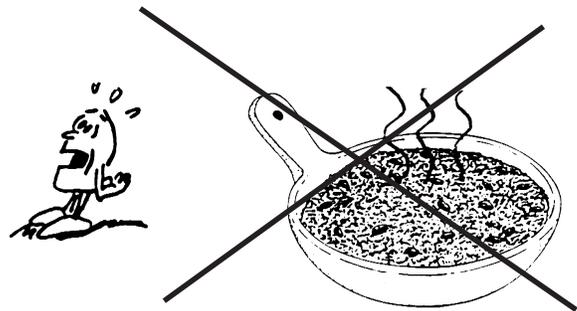
Escoja comidas que no son grasosas.



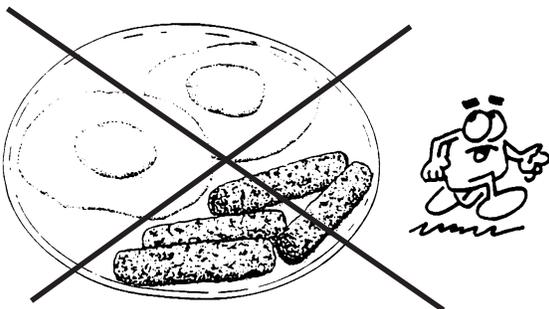
Tome caldo y otros líquidos entre comidas y no con las comidas.



Evite sus comidas favoritas mientras que tenga náusea.



Evite los olores desagradables.
Ventile bien la cocina.



Adapted from Santa Clara County Health Department, San Jose, CA



Guía Para La Nutrición



La Náusea y El Vómito

¿Cual es la causa? Pueden ser las medicinas.



¿Sabe lo que puede hacer para aliviar problemas del estomago?



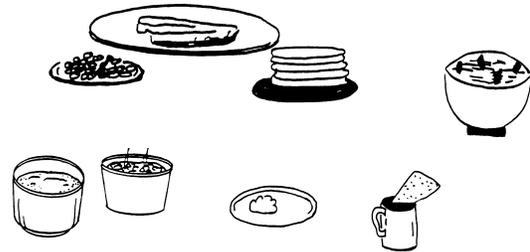
Coma comidas secas y saladas, no dulces.



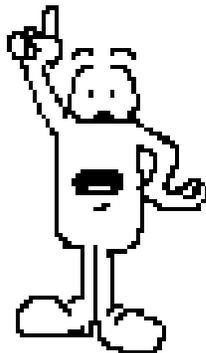
Galletas Saladas



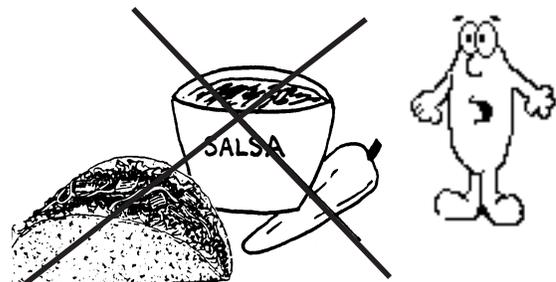
Sirva porciones pequeñas en sus comidas y coma cada 2-4 horas.



¡¡Coma Despacio!!



Seleccione alimentos que no tengan muchos condimentos porque ellos pueden irritar el estomago.

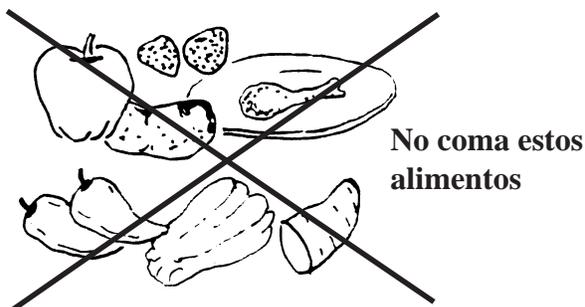


Adapted from Santa Clara County Health Department, San Jose, CA

Guía Para La Nutrición

Úlceras o Dolores en la Boca

No coma comidas duras o secas ni comidas con semillas, o con pellejo aspero.

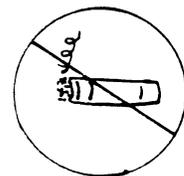


No tome alcohol ni fume cigarrillo. Ellos pueden irritar la boca y la garganta.

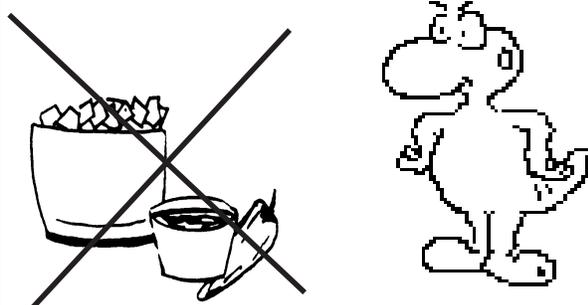


NO TOME

NO FUME



Limite el uso de condimentos. No coma comidas muy picantes ni saladas.





Guía Para La Nutrición

Úlceras o Dolores en la Boca

Algunas de estas sugerencias pueden ayudarle y a otras no.

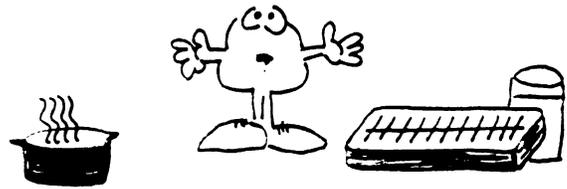
¿Cuál es la causa? Puede ser la candidiasis oral u otras infecciones.



Sirva sus comidas a una temperatura moderada o tibia. Evite los extremos de temperatura.

Ni Caliente

Ni Frio



Escoja alimentos y bebidas suaves en lugar de alimentos acidos. Algunos ejemplos de alimentos suaves son...



Avena



Frutas enlatadas

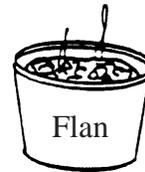
Jugo o Nectar



Otras comidas blandas son flan, arroz con leche y puré de papas.



Arroz con Leche

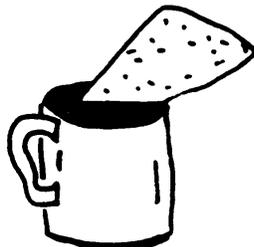


Flan

Puré de papas



Remoje el pan tostado, la tortilla o las galletas en liquido (como la leche, el Caldo y el jugo) para ablandarlos.



Trate de licuar carnes duras de masticar con salsas (no picantes) o sopa cremosa.



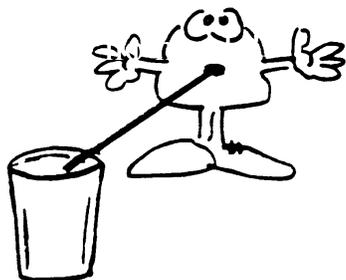
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Guía Para La Nutrición

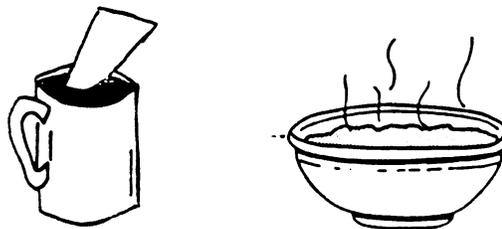


Dificultad en Tragar Alimentos

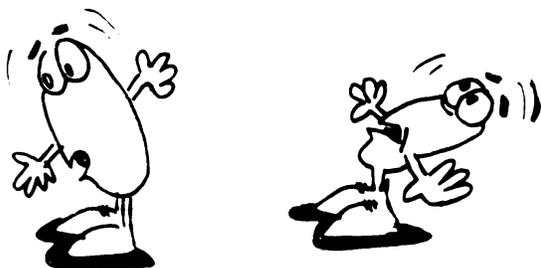
Utilice un popote (sorbeto) para tomar líquidos.



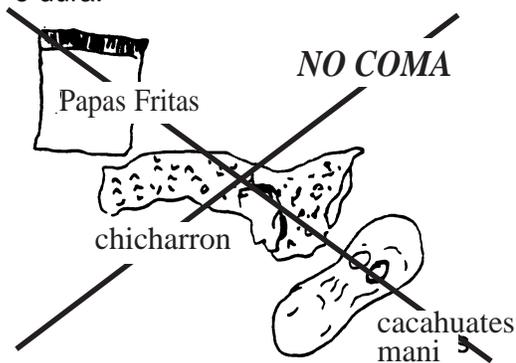
Suavice la comida, remojándola en líquidos o coma sopa con alimentos blandos.



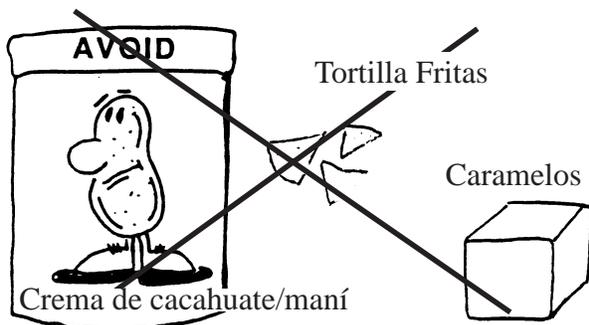
Mueva la cabeza de atrás para delante para ayudarlo a tragar la comida.



No coma alimentos de textura aspera, o dura.



No coma alimentos secos o pegajosos.



Adapted from Santa Clara County Health Department, San Jose, CA

Guía Para La Nutrición

La Pérdida de Apetito

Coma en un lugar alegre.



Haga ejercicio ligero antes de comer. El ejercicio estimula el apetito.



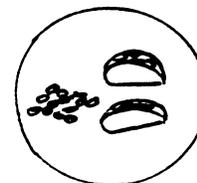
Coma con un amigo.



Cuando sea posible, no tome líquido con la comida, porque puede sentirse lleno más rápido.



AT 11:00 AM
(a las once)



AT 1:00 PM
(a la una)

Tome un suplemento nutritivo. Pregunte a su proveedor de cuidado médico por algunas sugerencias.



Guía Para La Nutrición



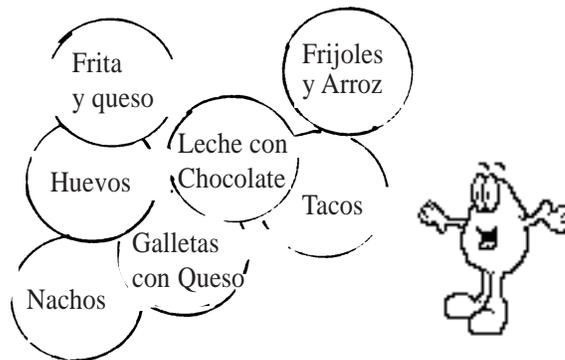
La Pérdida de Apetito

La pérdida de apetito puede ser causada por las medicinas, la ansiedad, el decaimiento, o las infecciones.

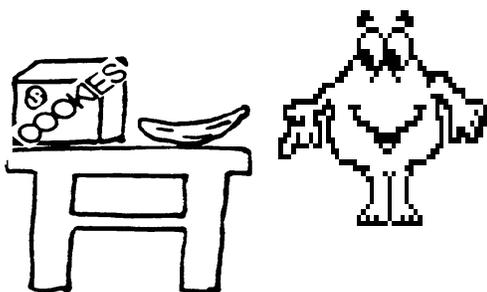


Voy a hacer todo lo posible para mantener mi peso.

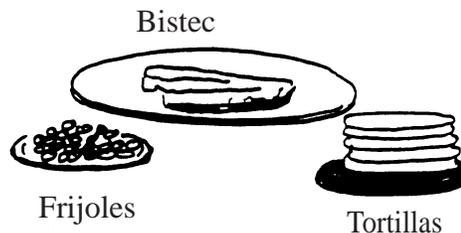
Coma comidas pequeñas cada 2-4 horas.



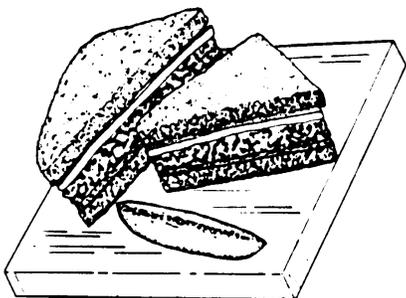
Mantenga comidas favoritas a su alcance. (cerca de su cama, el sofa, o silla)



Escoja sus comidas favoritas.



Escoja alimentos que no tengan olor fuerte.



Evite la tensión antes de comer y durante la comida.



Adapted from Santa Clara County Health Department, San Jose, CA