Nutrition and HIV

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Good nutrition is very important for long-term health and well-being. Studies have found that people living with HIV who regularly eat healthy food in the right amounts can better tolerate HIV drugs, maintain a healthy weight, and feel better overall. Experts often use the term "nutritional status" to describe whether someone is getting the right amount of nutrients from their diet. Diet here means whatever you eat and drink, not a specific set of food restrictions for losing weight.

Nutrients are things like fats, protein, carbohydrates, vitamins, minerals, and other important chemicals. You need proper levels of different nutrients in order to build and repair cells, keep hormones regulated, fight infection, and maintain energy levels. For the most part, we cannot make nutrients. We get what we need from food and, when that is not possible, from dietary supplements.

Good nutrition depends on many things, including:

- What type of food you eat and how much of it
- How your body breaks down and soaks up nutrients
- How different parts of your body use these nutrients

HIV-related changes in any of these factors can affect your nutritional status. Over time, this can lead to a variety of problems, including:

- Weight loss
- Muscle wasting (loss of muscle)
- High levels of fats and sugars in the blood
- Not enough vitamins and minerals

Many of these problems can be avoided or managed by eating the right foods.

How Is Nutrition Measured?

Nutritional status can be determined in many ways, including:

- Weight and other measurements of body fat and muscle mass
- Hemoglobin or hematocrit counts, which measure iron in the blood (hemoglobin helps your red blood cells carry oxygen, which gives you energy)
- Other blood tests to check levels of important fats (cholesterol and triglycerides), proteins (such as albumin), vitamins (B-12, vitamin D), and minerals (sodium, potassium)
- Hemoglobin A1c levels to diagnose pre-diabetes or to monitor diabetes

Diet and HIV

A healthy diet is a key part of any HIV treatment plan. A diet is simply any food and drink that you
consume regularly. Your diet should give you the nutrients you need to:

- Fight weight and muscle loss
- Keep energy levels high
- Help you get what you need from medications you take
- Minimize the negative effects of HIV drugs

What kind of diet is best for you depends on your weight and your nutritional status (cholesterol, blood sugar, vitamin levels, etc.). A nutritionist or registered dietician can help you figure out what type of diet makes the most sense for you. AIDS service organizations (ASOs) and health care clinics sometimes have nutritionists on staff.

**Women Living with HIV and Nutrition**

Nutritional guidelines such as the US Recommended Dietary Allowance (RDA) are set by the government to let people know how much of each nutrient they need each day to maintain good health. However, the RDA does not take into account that living with HIV increases these needs. One study showed that people living with HIV needed between six and 25 times the RDA of some nutrients.

One study showed that people living with HIV needed between six and 25 times the Recommended Daily Allowance of some nutrients.

Due to dieting (restrictive eating), eating unhealthy foods, lack of time, and other pressures, some women in the US do not eat what they need to meet even the basic RDA requirements for many nutrients. This puts women, especially women living with HIV, at particular risk for not getting enough nutrients to maintain their health.

However, this does not mean that women living with HIV are necessarily underweight. In fact, in some resource-rich countries like the US, more women living with HIV are overweight or obese than women in the general population. Weight gain is a common side effect of some HIV drugs. Although HIV drugs greatly reduce AIDS-related illnesses and help people live longer, healthier lives, recent research shows that weight gain associated with HIV drugs can increase a woman's risk of diabetes. Since being obese can increase the chances of getting conditions that are already common for many people living with HIV (e.g., heart disease, cancer, high blood pressure, high cholesterol), it is important to maintain a healthy weight.

**Nutrition as Self-Care:** In this episode of Stay Well at Home, registered dietitian nutritionist Maya Feller MS, RD, CDN hosted a lively, interactive, informative session on the importance of diet and nutrition, especially during times of stress, specifically geared toward women living with HIV.

Ways to Improve Nutritional Status

**Seek Assistance if Needed**

While supplements are not a replacement for a well-balanced diet, they can help you get the additional micronutrients you need.

For many people, in every region of the globe, it is not possible to eat a healthy diet, mainly because they cannot afford how much it costs. Conditions caused by events like wars, natural disasters, or
pandemics – which can force people to live on less or no money and also disrupt the food supply – make this matter even worse.

In the US, food assistance programs such as the Supplemental Nutrition Assistance Program (SNAP), the Women, Infants, and Children (WIC) program, school lunch programs, and food banks help people to access healthy food. Anywhere in the world, local AIDS service organizations may have information about where to get healthy food if you are experiencing food insecurity (not able to get enough food to lead an active life).

Maintain a Healthy Weight

With a chronic infection like HIV, your body may burn more energy (calories). If you are using more than you are bringing in, you may lose weight. It is also possible to eat more calories than you are using, and thus gain weight. Either way, if you are not eating healthy foods, you can hurt your health.

Some people living with HIV need to eat more calories each day to prevent weight loss. Hunger is not always a reliable guide, because you can feel nauseous or turned off by food, even when you need it. If this is the case, speak to your health care provider about ways to manage your nausea or stimulate your appetite.

Eat More Complex Carbohydrates

Carbohydrates are a good source of energy (but can be a problem if you have diabetes). They are found in foods like:

- Bread
- Pasta
- Rice
- Cereal
- Potatoes

Carbohydrates come in different forms. Simple carbohydrates are more easily digested but can cause your blood sugar to rise sharply. Simple carbohydrates include sugar (as found in sweets, soft drinks), white rice, and white flour. They also occur naturally in fruits and milk. It is recommended that people with diabetes limit the amount of simple carbohydrates in their diet.

Complex carbohydrates (also called starches) take longer for your body to digest, and often contain more fiber and other nutrients than simple carbohydrates. Complex carbohydrates include whole grains, beans (legumes), starchy vegetables like corn and potatoes, and brown rice. Because they take longer to digest, complex carbohydrates do not cause blood sugar to rise as sharply as simple carbohydrates and are therefore recommended for people with diabetes.

Eat More Protein to Fight Muscle Loss

Protein (along with physical activity) helps your body build and maintain muscles. During times of infection, protein stored in muscles can get burned to provide energy for the body. This can lead to loss of muscle, also called muscle wasting.

It is important to try to eat at least three servings of protein every day. A good estimate of a 'serving' is the amount of food the size of your fist. Foods high in protein include:

- Lean meats, including beef, chicken, and pork
- Fish
- Cottage cheese and yogurt
- Eggs
- Beans, chickpeas, soybeans, and nuts

Some animal sources of protein can be high in saturated fats and should be used in moderation—especially if you have elevated cholesterol or are at risk for heart disease.

**Fiber, Water, Fruits, and Vegetables for Gut Health**

Your body needs a healthy gut to get the nutrients it needs from foods, supplements, and medications. Foods high in fiber can help keep your bowel movements regular and support gut health. These include:

- Oats
- Whole grain bread
- Lentils
- Chickpeas
- Beans
- Fruits and vegetables
- Prunes and apricots

Water (8-10 8-oz cups a day, or about two liters), juices, fresh fruits, and vegetables can help you digest and eliminate waste through urine (pee) and feces (poop). Drinking more water can help you reduce the side effects of medications.

Animal fat, especially dairy, can make diarrhea worse. If diarrhea is a problem, you may need to cut back on animal fat, fried foods, and sugary foods. It is important to know that juices often contain a lot of sugar. Sometimes the sugar is natural (from the fruit), and sometimes sugar has been added to the juice (e.g., cane sugar, corn syrup). Either way, juices tend to have more sugar and less fiber than fresh fruit. As a result, juices can make diarrhea worse. It is important for people who have diabetes or pre-diabetes to limit the amount of juice they drink.

**Include Foods to Reduce Inflammation**

Because the immune system of a person living with HIV is always struggling to get rid of the virus, it is always activated, or "turned on." An activated immune system produces inflammation. Ongoing inflammation appears to be related to many conditions, including heart disease and cancer.

The good news is that several foods can help to reduce inflammation. These include:

- Green leafy vegetables like chard, collards, kale, and spinach
- Bok choy (Chinese cabbage)
- Broccoli
- Beets
- Celery
- Certain fish, like mackerel, salmon, sardines, and tuna
- Certain fruits, like blueberries, cherries, pineapple, and strawberries
- Certain nuts, like almonds and walnuts
- Certain oils, like olive oil and coconut oil
- Certain seeds, like chia seeds and flax seeds
- Certain spices, like turmeric and ginger
- Tomatoes

**Supplements**
People living with HIV need more vitamins to build and repair tissue. It may not always be possible to get all the **micronutrients** (vitamins and minerals) from foods you eat. Not getting enough micronutrients can cause problems such as **anemia**.

While supplements are not a replacement for a well-balanced diet, they can help you get the additional micronutrients you need. Many people living with HIV take a general multivitamin, and some take additional supplements for specific micronutrients (such as calcium pills for women who do not get enough of that mineral from their diet). Because several studies have shown that taking a general multivitamin can have health benefits for people living with HIV, some health care providers recommend that their patients living with HIV take multivitamins. However, due to **drug interactions**, it is important to discuss with your provider any vitamins or supplements you are thinking about taking.

Speak to your health care provider and see a registered dietician for a nutritional evaluation. They can help you determine what combination of dietary changes and supplementation can correct any micronutrient shortages you have.

### Practice Food Safety

It is very important to protect yourself against infections that can be carried by food or water:

- Wash your hands before preparing or eating food
- Wash all fruits and vegetables carefully
- Do not eat raw or undercooked eggs or meat
- Use bottled or filtered water if the public water supply is not totally safe

### Taking Care of Yourself

It is not always easy to stick to a well-balanced and healthy diet. However, the benefits of good nutrition are clear. Well-nourished people have a healthier **immune system** and are better prepared to fight off infections. In addition, many people living with HIV use food and supplements to manage a variety of complications and **side effects**.

Your diet and supplements are key parts of your overall strategy to fight HIV and stay healthy. Although there are no US nutritional guidelines with specific recommendations for people living with HIV, a well-balanced and varied diet that includes all vitamins and minerals seems to be the best way to go. Work with your health care provider and a dietician or nutritionist to develop the best plan for you.

### Additional Resources

Select the links below for additional material related to nutrition.

- [Nutrition and Fitness (TheBody.com)](https://www.thebody.com)
- [Healthy Eating for People Living with HIV (aidsmap)](https://aidsmap.com)
- [8 Carbs You Should Be Eating (Huffington Post)](https://www.huffpost.com)
- [Nutrition and HIV/AIDS (WebMD)](https://www.webmd.com)
- [Food Safety and Nutrition (HIV.gov)](https://www.hiv.gov)
- [Hunger and Food Insecurity (Feeding America)](https://feedingamerica.org)
- [The Best Protein You Can Eat, According to Nutritionists (Huffington Post)](https://www.huffpost.com)
- [Dietary Fat: Know Which to Choose (Mayo Clinic)](https://www.mayoclinic.org)
- [Foods That Fight Inflammation (Harvard Health)](https://www.harvardhealth.com)
- [Food and Nutrition (Benefits.gov)](https://benefits.gov)
- [HIV and Nutrition and Food Safety (HIVinfo)](https://hivinfo.nih.gov)
- [HIV and Nutrition (POZ)](https://www.poz.org)
Eating Tips: A Nutrition Guide for People Living with HIV/AIDS (God's Love We D...