

About Vitamin Pills

Remember that pills cannot make up for not eating well. Foods contain many substances, which are not found in pills. There is no specific vitamin that will cure HIV/AIDS. Vitamin pills are simply an addition to a healthy eating pattern. Vitamins are not a treatment for the disease.

It is known that dietary recommendations were designed for healthy people and not really for people living with HIV/AIDS. HIV/AIDS causes people to have higher needs of certain vitamins and minerals and also leads to losses of vitamins and minerals in the urine and stools. If there is also poor food intake and poor absorption of the nutrients, it leads to poor nutrition. It may thus be useful to take a vitamin supplement with added minerals.

VITAMINS: What, how much and when?

- Always **take vitamin pills on a full stomach**. Be consistent and take them regularly.
- It is probably better (*and cheaper*) to take one **multivitamin tablet with minerals** daily rather than several pills containing different vitamins and minerals.
- **Anti-oxidant preparations** help your immune system. Anti-oxidants include vitamin A, C and E and also selenium. (*See the section on Supporting the Immune System*).
- Vitamin tablets **are not paid for by the medical aid schemes** and will leave less money for food.
- **More is not better**. High doses of vitamins can cause nausea, vomiting, decreased appetite and liver and kidney problems. It is also known that very high intakes of zinc and vitamin A can decrease immunity in people with HIV/AIDS.
- Do not take any vitamin in **amounts of more than twice the Recommended Daily Allowance or RDA**. This is usually stated on the label.
- **Discuss vitamin pills** with health workers.

Scientifically Unproven Nutritional Treatments

People with HIV/AIDS often become frustrated with the management of the disease. Many are willing to try anything in the hope of staying healthy and living longer. The use of vitamins as discussed above is only one example of what is available. Vitamins are expensive and are sometimes even harmful when too much is taken.

There are a number of other treatments on the market, including traditional and alternative treatments that people living with HIV/AIDS are sometimes encouraged to follow. People with HIV/AIDS are vulnerable to try out all sorts of treatments, which are claimed to be beneficial, but may sometimes actually be dangerous. It is important to be careful when making decisions about treatments. Always discuss the treatments with health workers.

When these treatments require the avoidance of certain foods, it can lead to poor nutrition. This will weaken the immune system. The main argument against these unproven treatments is that they are often very low in energy and can cause weight loss.

SUPPORTING THE IMMUNE SYSTEM

The immune system resists infections and disease by fighting off germs, bacteria, viruses and parasites that people are exposed to daily. With HIV infection the immune system is weakened or deficient. That is what the name **AIDS (Acquired Immune Deficiency Syndrome)** means.

This protective system of the body is made up of certain **proteins**, called **antibodies**, and **cells** that attack invading germs. The **T-cells** and **B-cells** (*or lymphocytes*) help to fight infection. These lymphocytes are found in the blood stream. The **T-cells** are an important defence against germs and the **B-cells** make antibodies that assist

in the fight against infection. **A high T-cell count indicates a healthy immune system.** If the T-cell count remains high, it contributes to a healthier and longer life.

The lining of the gut also contains cells of the immune system. Poor nutrition can affect the lining of the gut negatively. This means that germs and parasites can enter the body through the gut. Food safety now becomes very important for people with HIV/AIDS (see the section on *Food Safety Principles*). Vitamin A and vitamin C help to keep the lining of the gut and lungs healthy and strong to prevent germs from entering the body.

Because people living with HIV/AIDS have a weakened immune system, they often suffer from infections that take advantage of this situation. These infections are called **opportunistic infections**. Even minor infections, which a healthy immune system could easily overcome, can be severe or fatal in someone with HIV/AIDS. Every infection places extra demands on the immune system. Infections lead to loss of appetite, eating problems and also diarrhoea. Repeated infections lead to poor nutrition, which further disables the immune system.

Poor nutrition undermines the immune system of all people, whether they are HIV positive or not.

Poor nutrition leads to lower T-cell counts. Good nutrition can improve your immune system and decrease your risk of other infections. A well-nourished person can also recover more quickly from an infection.

REMEMBER: No specific food or nutrient can destroy the virus, but a healthy eating pattern and lifestyle will strengthen the immune system. Good nutrition will help you to fight infections and delay the development of full-blown AIDS. This will improve well-being and prolong life. When people eat well, they also feel better. Feeling well and psychologically strong also helps to boost the immune systems. Use the Food Choices on page 6 to plan a healthy eating pattern.

Nutrients and Immunity

Deficiencies of protein, vitamins A, C, and E, some of the B-group vitamins and a number of minerals interfere with the immune system. The nutrients discussed below are of particular importance to maintain a healthy immune system. Many other nutrients also play a role and a healthy eating pattern consisting of a great variety of foods is necessary to protect against infections.

There is much talk about **anti-oxidants** and many people with HIV/AIDS may already know about this. The well-known anti-oxidants are vitamins A, C and E and also the mineral selenium. It is known that anti-oxidants help to protect body cells from damage. In this way they can, for example, help in the prevention of infections and also cancer. In HIV infection, the anti-oxidants may help to **slow down** the disease by keeping the immune system healthy.

Proteins

Proteins make the immune system strong. Foods from animal sources like meat, poultry, fish, eggs and dairy products (*milk, milk powder, yoghurt, buttermilk, maas, cheese*) are good protein sources. The organ meats of animals (*liver, kidney, and heart*) add proteins to meals and chicken livers are an inexpensive source. Tripe or "afval" and the mopani worm are also good protein sources. Some plant foods are also good sources of proteins and these include peanuts (*and peanut butter*), dried beans and other legumes such as peas and lentils. Soya beans and tofu, which is eaten by some vegetarians, are also good sources.

Vitamins

Vitamins help to support the immune system and keep the linings of the lungs and the gut intact. This makes it more difficult for germs to enter the body and cause infections. **Fresh fruits and vegetables and pure fruit juice are the best sources** of a number of vitamins. Overcooking destroys vitamins and vegetables lose their vitamins if they are soaked in water for a long time.

- **Vitamin C** helps in the recovery from

infections. It is found particularly in citrus fruits (*oranges, grape fruit, lemon and naartjies*). Guavas, mangoes, maroelas, tomatoes and potatoes are also good food sources.

- **Vitamin A** is especially important in keeping the linings of the skin, lungs and gut healthy. It is found mainly in dark green and yellow, orange and red fruits and vegetables. These include spinach, morogo, broccoli, pumpkin leaves, green peppers, sweet potato, Hubbard squash, pumpkin, carrots, yellow peaches, apricots and mangoes. Liver is one of the best sources of vitamin A and other good animal sources include butter, cheese and eggs. During infections there is an increased loss of vitamin A from the body.
- **Vitamin B6** is necessary to maintain a healthy immune and nervous system. This vitamin is lost with some medicines used in the treatment of TB. Good food sources include white beans, potatoes, meat, fish, chicken, watermelon, maize, grain, nuts, avocado, broccoli and green leafy vegetables.

Selenium

Selenium is a mineral and another important nutrient for the immune system. It helps to activate the available T-cells. Good sources include whole grain foods like whole wheat bread, bran flakes, mealies, samp and millet and also milk and dairy products like milk, yoghurt and cheese. Protein-rich foods like meat, fish, poultry and eggs are also good sources and so are peanut butter, dried beans, and also nuts.

Zinc

Zinc is also an important mineral for the immune system. The food sources include meats, fish, poultry, shellfish, whole grains cereals, mealies, beans, peanuts, milk and dairy products.

Flavonoids and phytosterols

Flavonoids and **phytosterols** are natural substances found in fruits and vegetables, but which are not nutrients. They are now known to play an important role in helping the immune

system and in the prevention of cancer and other diseases. Flavonoids are found in citrus fruits, apples, berries, red grapes (*also grape juice*), carrots, onions, broccoli (*also cabbage, cauliflower and Brussels sprouts*), peppers and green tea. Phytosterols are found in a large number of foods, so eating a variety of fruits and vegetables will ensure a good intake. Seafood, peas, nuts (*including peanuts*), seeds (*sunflower and sesame*) and whole grains are particularly good sources.

Alcohol

Alcohol can interfere with immunity by depleting the body of vitamins that are used to boost the immune system. The drinking of alcoholic drinks like beer, wine, brandy, whiskey, etc. should be avoided at all costs.

REMEMBER: A good vitamin intake can be ensured by eating as many fruits and vegetables as available and affordable. To get the most vitamins from food, it is better to eat food in as natural a form as possible. See the section "Eat lots of fruits and vegetables" on page 8.

FOOD SAFETY PRINCIPLES

Food and HIV Infection

It is very important to remember that:

- **HIV/AIDS cannot be spread by food and water.**
- **Sharing eating utensils** like cups, plates, knives and forks with HIV positive people **cannot spread the virus.**

It is safe to share meals with people who are HIV positive. In the later stages of the disease people living with HIV/AIDS often require assistance with food preparation. This poses no threat of HIV infection to those caring for the infected person. When helping to feed someone with HIV/AIDS, touching them poses no risk.