

# vitamins, minerals and herbal supplements

## Vitamins and minerals

A balanced diet will almost definitely meet all your vitamin and mineral needs, but many HIV-positive people also take a multivitamin and mineral tablet every day.

Vitamin and mineral deficiencies are seen in people with HIV who are unwell and have weak immune systems. Many doctors believe that this is a consequence of being ill.

Multivitamins and minerals are not a replacement for anti-HIV drugs, but there is some evidence that taking them when you are well may support your immune system.

Recently a study conducted in Africa showed that taking a daily multivitamin tablet which included vitamin B complex, vitamin C, vitamin E and folic acid delayed the onset of AIDS and death. Another study in Thailand showed a micronutrient tablet reduced the risk of death in people with very advanced HIV disease.

In the US, a broad-spectrum micronutrient was shown to increase the CD4 cell counts of people taking it at the same time as anti-HIV drugs over three months. The micronutrient combined 15 vitamins, 15 minerals and antioxidants including lipoic acid, N-acetyl cysteine and acetyl L-carnitine. It was manufactured without the fillers, binders and lubricants found in commercial supplements that can interfere with the supplements' absorption.

Other studies have shown that HDL cholesterol, often called 'good' cholesterol, and selenium levels are higher in people with slower HIV disease progression.

## High doses of vitamins and minerals

There is little evidence that taking 'mega' doses of vitamins and minerals have any benefit. Indeed, it is worth noting that large doses of some can cause very unpleasant side-effects and can even be dangerous.

- **Vitamin A:** Doses above 9000 micrograms in men and 7500 micrograms in women may be harmful. Large amounts can cause liver and bone damage, vomiting and headache. If you are pregnant, or thinking about becoming pregnant, you should talk to your doctor before taking vitamin A as large doses can harm an unborn child.
- **Vitamin C:** Doses above 1000mg per day can cause kidney stones, and special care is needed if you are taking the protease inhibitor indinavir which can also cause kidney stones. It has also been shown that large doses of vitamin C can lower blood levels of indinavir.
- **Vitamin E:** Doses above 800mg a day may interfere with normal immune function. Special care is needed if you are taking anti-coagulants or if you have haemophilia.
- **Zinc:** Doses above 75mg a day have been linked with copper deficiency, a shortage of immune system cells called neutrophils, and anaemia. One study found that taking above 15mg a day increased the risk of developing HIV-related symptoms.

- **Selenium:** Doses of more than 750 micrograms per day have been associated with immune suppression.
- **Vitamin B6:** More than 2g a day can cause nerve damage, but doses as low as 50mg a day have been associated with peripheral neuropathy.

## Herbal supplements

Herbal remedies are also widely used by people with HIV. However, some herbal remedies can interact with anti-HIV medication meaning that the amount of the HIV drug that gets into the blood is too low to effectively fight the virus leading to the emergence of drug-resistant HIV.

Because the use of herbal supplements is not studied as extensively as the use of prescription medications not all the potential interactions are known about.

Some of the most concerning interactions seen so far are:

- **African potato:** This herb is widely used in Africa by people with HIV, but test tube studies have shown that the body uses the same mechanism to process it as it does for HIV drugs, meaning that not enough anti-HIV drug may get into the blood.
- **Garlic:** Supplements of garlic have been shown to stop the body processing protease inhibitors and NNRTIs properly. A study involving HIV-negative volunteers taking a protease inhibitor found that a twice-daily garlic supplement lowered blood concentrations of the protease inhibitor. This finding is very concerning as garlic is often taken by people with high levels of fat in their blood, and high blood fats can be a side-effect of anti-HIV drugs. However, there is no evidence that garlic used for cooking interacts with HIV medicines.
- **St John's wort:** This popular herbal antidepressant has been shown to lower blood levels of indinavir and the UK's Medicines Control Agency has warned that it could affect blood levels of all protease inhibitors and the NNRTIs efavirenz and nevirapine.
- **Sutherlandia:** A herb which is used in Africa for the treatment of people with HIV has been shown by laboratory studies to interact with anti-HIV drugs.

## Help and advice

Before you take any vitamin, mineral or herbal supplement talk to your HIV doctor or specialist HIV pharmacist first. They will be able to tell you if there is a risk of an interaction with anti-HIV drugs.

A dietitian can analyse your diet and advise you on how to optimise your nutritional intake so you can meet your vitamin and mineral requirements through both foods and supplements.

Also remember, vitamins, minerals and herbals supplements can have side-effects, just like prescription medicines and you should never take more than the recommended dose.

**please photocopy and pass on**

copyright © NAM 2006  
all rights reserved

**NAM publishes a wide range of publications on treatment for HIV**

**for details write to NAM**  
Freepost LON 17995  
London SW9 6BR

**tel**  
+44 (0) 207840 0050  
**web**  
www.aidsmap.com