

Guidelines for patients: The benefits of good nutrition when you are infected with HIV

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When our bodies do not get enough food, or the right foods, we become weak and cannot develop or function properly. Healthy and balanced nutrition means eating the right type of food in the right quantities. People with HIV have higher than normal energy needs (see Box 1). So a healthy diet is especially important if you are infected with HIV. Food cannot cure HIV infection, or treat the virus, but it can certainly improve fitness and quality of life. Eating enough and a balance of different foods helps to:

- Maintain your body weight and muscles,
- Maintain and improve the performance of your immune system.

Box 1. Nutrient requirements for people living with HIV^{1,2}

Energy

- Adults and children with no symptoms of HIV or opportunistic infections need 10% more kilocalories.
- Adults and children with signs of other infections or AIDS need 20-30% extra kilocalories
- Children who have symptoms and are losing weight need 50-100% extra kilocalories.

Protein

- Protein requirement is 12-15% of energy intake (as for non-infected people). So the increased need is similar to that for energy.

Micronutrients

- We do not know if HIV increases needs for micronutrients. But many people with HIV have micronutrient deficiencies and may need supplements. A multi-micronutrient supplement containing 100% of the daily need of all micronutrients may be helpful.
- It is safe to give children aged 6 months to 5 years a high dose of vitamin A every 6 months (see Southern Sudan Medical Bulletin vol 1 issue 1.) and pregnant women iron/folic acid supplements. Otherwise do not give high doses of micronutrients (especially vitamin A, iron and zinc) as these may be harmful.

Why is it difficult for people with HIV to eat enough food?

There are several reasons:

- People living with HIV or AIDS have a weakened immune system and so are more likely to catch infections. Infections reduce appetite but, when you are ill, you need more nutrients to fight the infection,
- Some medicines change the taste of food and reduce appetite,

- Symptoms such as mouth sores, nausea and vomiting make it difficult to eat.
- Symptoms such as diarrhoea reduce the absorption of food,
- Depression, worry and tiredness reduce appetite and willingness to prepare food and eat regularly,
- HIV infection may lead to increased poverty and decreased access to food.

If you eat less than you need, you are likely to:

- Feel cold, especially your hands and feet,
- Get dry skin and hair, body rashes and itching,
- Suffer dizziness,
- Feel depressed,
- Feel tired and weak,
- Lose your appetite.

Why is it important for people with HIV to prevent malnutrition?

If you eat less than you need or do not eat the right foods you risk malnutrition which:

- Reduces physical strength,
- Affects absorption of food,
- Delays wound healing,
- Weakens the immune system. Repeated infections may lead to malnutrition.

People with HIV who are malnourished are sick more often and can develop AIDS and die earlier than people with HIV who are well nourished. It is very difficult to reverse malnutrition so people with HIV/AIDS need to *prevent malnutrition*.



Eat plenty of fruits and vegetables (Marlou Bijlsma)

How can you prevent malnutrition?

To prevent malnutrition you should:

- Understand the importance of eating well,
- Eat a healthy and balanced diet,
- Practice good hygiene to prevent food born infections,
- Maintain a healthy weight. Get weighed regularly and increase food intake if you are losing weight,
- Treat opportunistic infections early,
- Adjust your food intake to deal with HIV related complications – see below.
- Use herbs and spices to improve digestion and stimulate appetite.

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Dietary guidelines to prevent or treat the complications of HIV infection^{3,4}

This section suggests how to adjust your diet so you can cope better with the complications of HIV and opportunistic infections^b. Infections increase nutrient needs but often reduce appetite. When you have an infection it is a challenge to eat enough to prevent malnutrition.

How to eat enough when appetite is poor

- Eat foods that you normally enjoy.
- Ask somebody else to prepare food. The smell of cooking may make you feel hungry.
- Take light exercise, such as walking or doing household chores, before a meal.
- Eat with family or friends. If you stay in bed, ask them to join you.
- Eat smaller meals, but more often. Eat whenever appetite is good.
- Eat healthy snacks between meals, like nuts, fruits.
- Sit up straight when eating, this removes pressure on the stomach.
- Drink a lot of fluids, but not during or just before meals, as this will fill your stomach.
- Use spices that you like to improve taste and smell.
- Avoid fizzy drinks, beer, cabbage and beans. These make gas and can make you feel bloated.
- Avoid junk foods. These may satisfy your appetite, but do not provide the nutrients you need.

Changes in taste

Some medicines cause a change in the taste of food, making it less appetising.

How to deal with taste changes

- Sour fruits like orange and pineapple usually taste nice.
- Use spices to improve the taste of food. Find ones that taste nice.
- If possible take medicines after meals.



Sore mouth

Infections can cause a sore mouth and loss of appetite. It is important to maintain food intake even when eating is difficult. Mouth sores will not heal if a person is malnourished.

How to deal with mouth sores

Do:

- Eat soft, mashed foods such as porridge, home made soup, soft fruits such as avocado, banana, papaya or boiled vegetables such as carrot, pumpkin and squash.
- Add nutrient rich liquids like milk to food to increase nutrient content and soften the food. Add groundnut or sim sim paste to boiled vegetables.

- Eat food and drink fluids at room temperature.
- Rinse your mouth with garlic tea or cinnamon tea
- Chew on small pieces of unripe mango or papaya to relieve pain.

If it is painful to brush your teeth, rinse with bicarbonate of soda and water.

Avoid:

- Very spicy and salty foods.
- Acidic and sour foods such as lemons, vinegar or pineapple.
- Very cold drinks or very hot foods and drinks.
- Foods that require a lot of chewing or foods that are sticky like bread with groundnut paste.

If you have oral thrush avoid sugar or sweetened foods. Drinking thyme or garlic tea may help.

Increase the energy content of your diet with fat-rich foods.

Weight loss

When the body does not get, or cannot absorb, enough nutrients it uses stored reserves and weight is lost.

Many people with HIV lose weight unintentionally especially during infections. So it is important to treat infections early and to eat more afterwards to regain weight.



When regaining weight you must do exercises to build your muscles. If you eat more without exercising you may grow fat but will not increase your muscles.

How to gain weight

- **Eat more** at each meal including more staple foods such as sorghum, maize, bread and millet.
- Eat more legumes especially fat-rich ones like groundnuts and oilseeds like sim sim.
- Eat meat, fish and eggs if you can afford them
- **Eat more often** - eat healthy snacks between meals such as fruits, seeds, nuts, and avocados.
- Add honey or sugar to tea and porridge.

Digestive problems

Certain foods can cause digestive problems such as bloating or constipation that may be prevented by changing your diet. Some medicines, especially antibiotics, cause digestive problems because they decrease the 'good' gut bacteria that assist digestion.

How to avoid or reduce digestive problems

- Chew your food well before swallowing
- Add papaya to meat dishes.
- Take a short walk after meals.
- Eat fermented foods such as soured porridges or milks, and fermented maize/sorghum drinks especially when on antibiotic treatment.
- If foods like onions, beans and cabbage make you feel bloated, avoid them for a week. Re-introduce them, a little at the time, when you can tolerate them.
- Eat more wholemeal cereals and fruits if you have constipation.

^b Adjust these guidelines to your patient's resources and food habits.

Diarrhoea

You have diarrhoea if you pass watery stools three or more times a day. Consult a health worker if the diarrhoea continues for more than three days, you develop fever or blood appears in the stool.

How to deal with diarrhoea

- Drink plenty of water or other fluids - at least 8 cups per day, to replace lost fluids. For example, drink soups, diluted fresh fruit juice or oral rehydration solution (ORS),
- Eat soft, mashed, moist foods, such as porridge, stews, boiled vegetables (e.g. squash, pumpkin), and fruits (e.g. banana, mango, papaya).
- Eat refined foods, such as white rice, refined maize meal, or white bread
- If fat causes problems, reduce fat intake by using less cooking oil and cutting visible fat from meat. Boil instead of frying food. As soon as the diarrhoea improves, slowly add more fat to your meals to increase your energy intake.

Do not eat foods that make diarrhoea worse; these may be spicy foods and unripe or acidic vegetables and fruits.

Nausea and vomiting

Infection, certain foods, stress, lack of water and some medicines can cause nausea. If vomiting occurs the body loses water rapidly and can dehydrate quickly.

How to deal with nausea

- Sit straight up when eating; try not to lie down until an hour after eating. A short walk after eating can help.
- Drink plenty of fluids, after meals.
- Ask someone else to prepare your food. The smell of cooking food may stimulate nausea.
- The smell of oranges or lemons may relieve nausea. Squeeze the peel or drink lemon juice in hot water or herbal tea.
- Eat dry and salty foods such as toast and crackers.
- Avoid fatty and sweet foods.

How to deal with vomiting

- To prevent dehydration take small frequent drinks.
- After vomiting, slowly drink half a glass of water, diluted soup or diluted fruit juice every 15 minutes, or take Oral Rehydration Solution. Re-start solid foods when you stop vomiting.

Skin problems

Rashes and itchy skin may be related to a poor diet and malnutrition. A compress made with papaya or tomato may bring relief.

Tuberculosis

Many people with HIV are also infected with tuberculosis (TB). People with TB often lose weight.



They need a healthy diet to improve their health, regain weight and replenish nutrient stores. TB patients who eat well have fewer side effects from the TB drugs and recover faster. Adjusting the diet can relieve some of the side effects of TB and TB drugs.

How to deal with the side effects of TB and TB medicines

- ...To avoid vomiting eat a **proper** meal and wait half an hour before you take the TB drugs.
- ...If you have diarrhoea or need to gain weight, follow the recommendations in the above sections.

• ...Antibiotics in the TB treatment destroy both the harmful TB bacteria and the 'good' bacteria that help digestion and so can cause diarrhoea. To restore the 'good' bacteria eat fermented foods, like sour porridge, sour milk and opaque beer. Take 1 cup with every meal.



- One of the TB drugs (Isoniazid) can cause numbness or a burning feeling of the skin, especially under the feet. The combination of Isoniazid and alcohol makes it worse. To avoid this:
 - Eat food rich in vitamin B6 such as whole wheat bread, beans, lentils, peas, potatoes, bananas, avocados and when available, meat, fish and liver.
 - If possible take a daily 10mg vitamin B6 tablet.
- ...If you have an irritable cough and it is difficult to sleep, cut up an onion and keep it beside your bed. Onions stimulate secretions that keep the airways moist, and so soothe them.
- ...TB can cause breathlessness. Ginger and garlic may relieve this. So:
 - Use garlic or ginger when preparing food and in tea/infusions. Add chopped garlic or ginger to a cup of boiling water. Drink a cup, three times a day.
 - Put hot ginger compresses on the chest. Boil 1 tablespoon of chopped ginger in 2 litres of water. Soak a towel in the hot water. Squeeze out excess water and place on the chest.

References

1. WHO. *Nutrient requirements of people living with HIV/AIDS*. Report of a technical consultation May 2003: www.who.int
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4. WHO. *Nutritional counselling, care and support for HIV infected women: guidelines on HIV related care, treatment and support for HIV infected women and their children in resource constrained settings*. WHO, Geneva, 2004.

