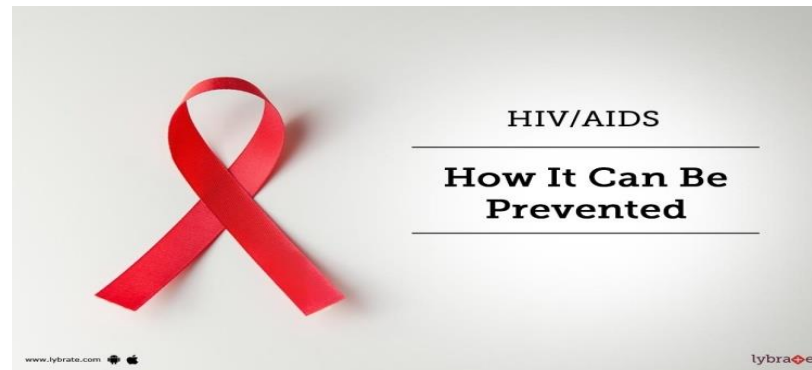


MANAGEMENT OF HIV/AIDS

AIDS DAY 1ST DEC



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INTRODUCTION

- There is No Cure as such
- A person with AIDS has a very weak immune system
- Disease limits the body's ability to fight infection
- HIV (Human immuno deficiency) is the virus that causes AIDS
- Acquired Immune Deficiency Syndrome-AIDS

FOUR WAYS TO PROTECT YOURSELF

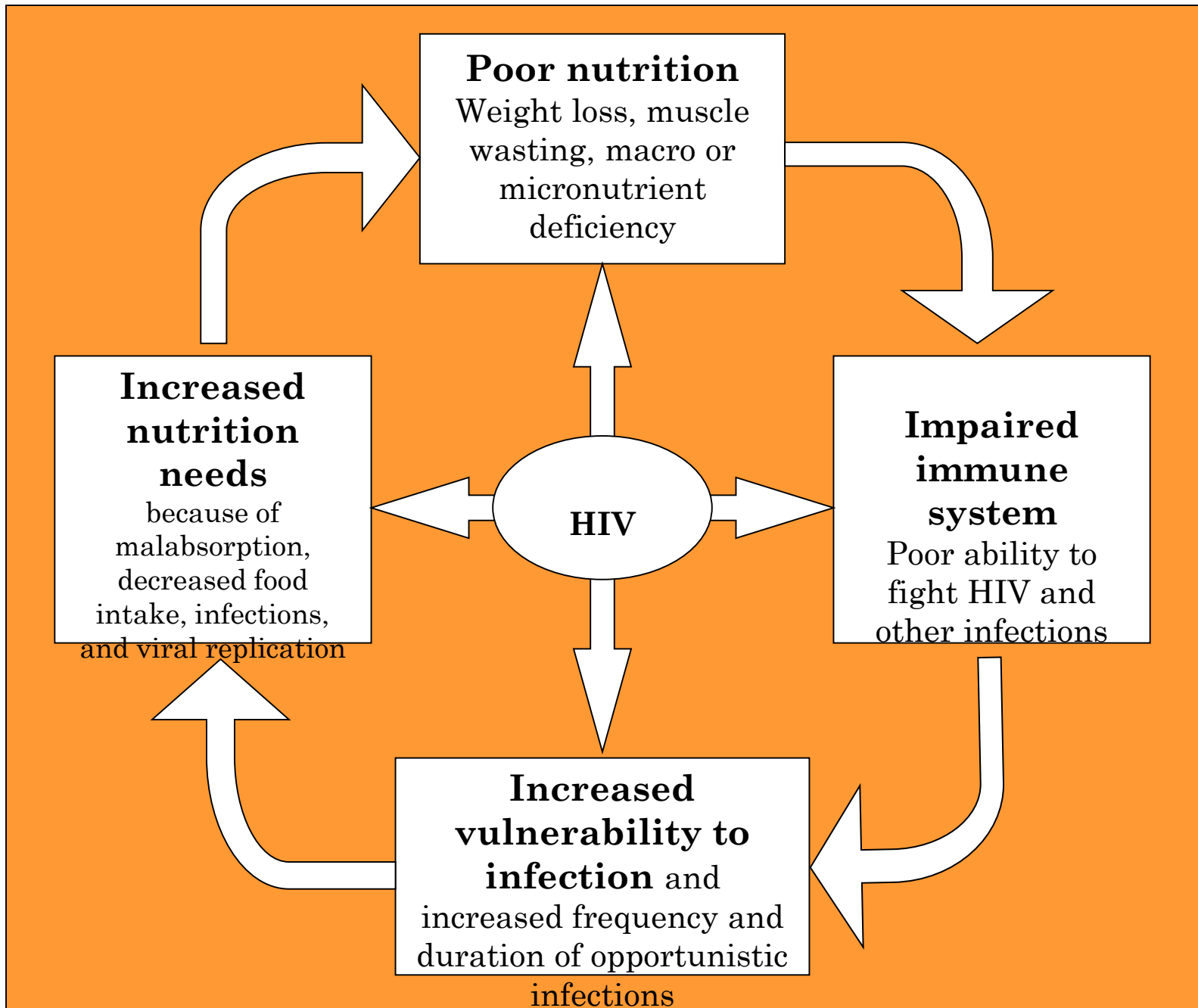
- Sterile needles
- Protected Sex
- Monogamous Relationship(One spouse)
- Abstinence (A practice of restraining oneself from indulgence in something, typically alcohol or sex)

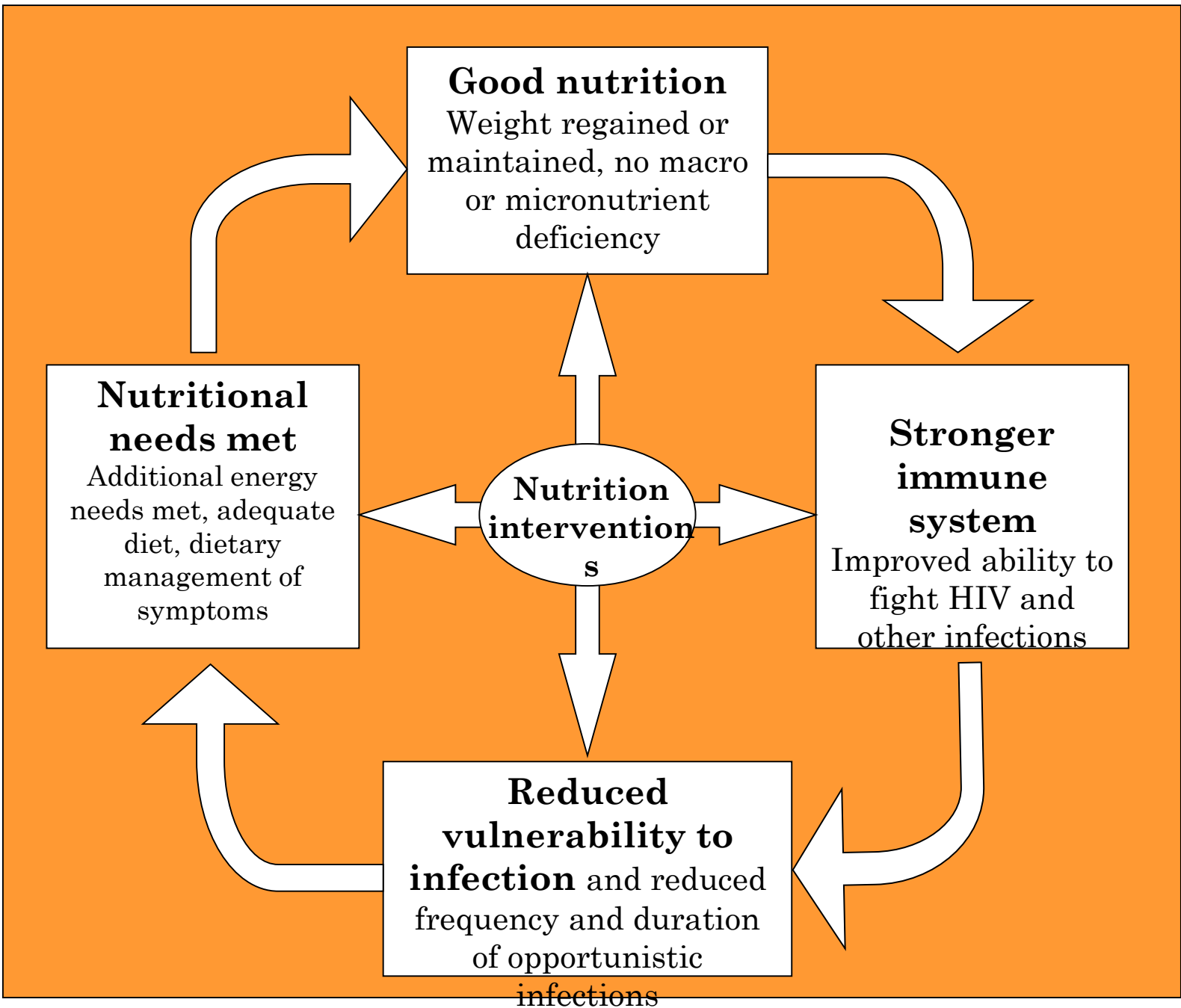
NUTRITION AND INFECTION

- Infections cause and aggravate poor nutrition.
- Poor nutrition weakens the immune system.
- Poor nutrition increases vulnerability to infection.
- Poor nutrition helps increase the incidence, severity, and duration of infections.
- Symptoms of infections lead to weight loss and growth faltering, further weakening immunity.

NUTRITION AND HIV: A VICIOUS CYCLE

- Weight loss
- Loss of muscle tissue and body fat
- Vitamin and mineral deficiencies
- Increased nutritional needs
- Reduced immune function
- Increased susceptibility to infection
- Weakness and reduced productivity





EFFECT OF NUTRITION ON HIV

Fevers and infections that accompany an **HIV** infection lead to greater nutrient requirements and **poor** use of the nutrients by the body. Furthermore, people who are chronically ill may also have a **reduced** appetite, which **leads to reduced food intake** and weight **loss**. Thus,

- Weakened immune system
- Increased susceptibility to oral intake
- Slower healing
- Possibly faster disease progression
- Poorer response to treatment
- Sense of despair, depression

1. REDUCED FOOD INTAKE

- Symptoms of opportunistic infections (OI) (e.g., mouth sores, taste changes, nausea, appetite loss)
- Side effects of medications
- Reduced quantity or quality of food

2. INCREASED ENERGY NEEDS

Because of viral replication and OI

- Asymptomatic: 10% more than healthy people
- Symptomatic: 20–30% more than healthy people
- Symptomatic children with weight loss: 50–100% more than healthy people

No change in protein, fat, and micronutrient requirements for people living with HIV

- Protein: 12–15% of energy intake
- Micronutrients: 1 RDA, possibly more if deficiencies

3. POOR ABSORPTION

- Can be caused by HIV infection and OI symptoms (diarrhea, vomiting)
- Can occur at any stage
- Results in excess nutrient loss

CONCLUSIONS

HIV affects nutrition by:

- Reducing food consumption
- Impairing nutrient absorption
- Increasing energy needs
- Causing HIV-associated wasting
- Changing metabolism
- Changing body composition

Poor nutrition affects HIV by:

- Decreasing immunity
- Slowing the healing process
- Possibly hastening disease progression

GOOD NUTRITION

- Keeping the system strong is especially important when you are infected with HIV
- Good nutrition and healthy eating can help to maintain and improve the performance of your immune system



NUTRITION BASICS

- Fats and Oils provide energy
- Proteins are the building blocks of our bodies. The foods we eat provide us with nutrients: proteins, fats, carbohydrates, vitamins, minerals and water. & Vitamins
- Carbohydrates provide energy
- Minerals & vitamins help put the building block in place and release the energy
- Foods from animals, Vegetables, Legumes, Staple
- You need to eat a variety of foods from the six food groups. Healthy food choices

WATER

- Water helps the digestion process and makes it easier for the body to extract nutrients from the food you eat.
- If your immune system does not have enough of one nutrient, it cannot function efficiently even if it has more than enough of the other. Variety is important
- **NUTRIENTS WORK AS A TEAM**

IRON

- Iron an important nutrient is best absorbed from meat & eggs
- Foods from animal sources contain the best, most easily digested protein
- Many HIV+ people decide not to eat meat because of a misguided notion that meat is unhealthy.

THE VEGETARIAN WAY OF LIFE

- Iron an important nutrient is best absorbed from meat and eggs
- Foods from animal sources contain the best, most easily digested protein
- Many HIV+ people decide not to eat meat because of a misguided notion that meat is unhealthy which is a myth

USE FIBRE WITH CAUTION

- Vegetarians may take in more dietary fibre & May cause digestive difficulties
- If your appetite is poor you may not be able to eat all you need
- It can make you feel full after eating very little this can affect the body in many ways & increase diarrhoea

WHY GOOD NUTRITION IS IMPORTANT

- Decrease the risk of opportunistic infections
- Improve the functioning of your immune system and your body's ability to fight infection
- Prevent tiredness, weight loss and malnutrition
- To replace lost nutrients
- Provide as good a quality of life as possible
- Promote independence
- Help you with gaining or keeping your body weight
- Shorten the length of hospital stays
- Improve response to treatment such as drugs and medicines

WHAT HAPPENS IF YOU EAT WELL

- Provide us good quality of life
- Promote independence
- Help you with gaining or keeping your body weight
- Shorten the length of hospital stays
- Improve response to treatment such as drugs
- You are at low risk for repeated infections plus earlier and faster progression to end- stage AIDS
- Poor nutrition contributes to a weakened immune system
- The body reacts well to the virus with an immune response which uses more energy and nutrients

HIV/AIDS LOWERS FOOD INTAKE

- In the late stages of the disease, they may find it difficult to cook for, and take care of themselves
- Isolation may result from social prejudice, eating food is a social event, loneliness lowers appetite
- Depression, fear and anxiety contribute to the loss of appetite
- Exercise strengthens your muscles which helps to strengthen your immune system
- Cook some of your favourite foods and meals
- Keep up your appetite by finding ways to stimulate it
- Weight loss is common among them & so, when patient is underweight, their ability to fight infection is weakened

- If you have difficulty sitting down for your main meals, eat many small meals and snacks during the day
- Use spices and flavouring to make your food tasty
- Make your food look nice and appetizing

DRUG-NUTRIENT INTERACTION

- Multiple medication regimens may have effects such as GI upset, diarrhoea, nausea, vomiting, malabsorption and/or anorexia, that negatively affect the ability to eat an adequate diet
- Medication side effects increase the need for effective nutritional therapy

FOOD SAFETY & HYGIENE IS ALSO VERY IMPORTANT

- Temperature at which food is kept bacteria to multiply in a warm environment
- Safe Water – purification make drinks, wash fruits, vegetables well
- Clean kitchen –Hygiene – hand washing are important
- Cover foods to prevent contamination by flies
- If the food does not smell good do not eat
- Bulging, dented, rusty canned products are not safe to eat
- Read labels – expiry date

VITAMINS & MINERALS

- Before you take extra vitamins
- Minerals you need are to be assessed by a doctor or dietitian & whether you take pills or not, you still need to eat food
- Minerals help release the energy from food but are not themselves a source of energy

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High doses of vitamins and minerals

- Some people take high doses of certain vitamins and minerals because they believe that they may boost their immune system. Although vitamins and minerals play an essential role in staying well, research has shown that large doses of some can be harmful.

All the following vitamins and minerals are important in maintaining your immune system, but can cause health problems if you have too much:

- **Vitamin A** (also called retinol; converted from beta carotene): large amounts can cause liver and bone damage, vomiting and headache. Doses above 0.7mg for men or 0.6mg for women may be harmful. Doses of **more than 1.5mg** may increase the risk of osteoporosis. Beta carotene supplements have been known **to increase the risk of lung cancer** in smokers.
- Pregnant women should not take supplements containing vitamin A without consulting their doctor as high intake can be harmful to the developing baby. Research has shown that **high levels of vitamin A have been associated with increased viral load in breastmilk**. If you don't get enough vitamin D you may be at a greater risk of the effects of too much vitamin A.

- **Vitamin B3** (niacin): higher doses of niacin taken for a long time may lead to liver damage. The maximum daily doses of niacin are 17mg (nicotinic acid supplements) or 500mg (nicotinamide supplements).

- **Vitamin B6** (pyridoxine): taking more than 200mg per day for a long time can lead to nerve damage (neuropathy). Taking daily doses of 10-200mg for short periods may not cause harm but more evidence is needed

- **Vitamin C** (ascorbic acid): doses above 1000mg per day may lead to diarrhoea and stomach pain. Some studies have also shown that they could cause kidney stones.
- Large doses of vitamin C have been shown to reduce concentrations of indinavir (*Crixivan*) in the blood. Special care is needed if you are taking the protease inhibitor atazanavir (*Reyataz*) which can also cause kidney stones. It's possible that there may be similar interactions between high-dose vitamin C and other protease inhibitors.

- **Vitamin E:** high doses are associated with adverse effects; special care is needed if you are taking an anticoagulant or if you have haemophilia.
- Taking 540mg or less is unlikely to cause problems.

- **Magnesium:** doses of 400mg a day for a short time can cause diarrhoea
- **Potassium:** doses above 3700mg a day could be harmful. Older people may be more at risk of too much potassium and should not take potassium supplements
- **Zinc:** high doses have been linked to copper deficiency, changes in LDL:HDL cholesterol ratios, neutropenia (low white blood cells) and anaemia (low red blood cells).
- A daily dose of 25mg a day as a supplement is considered the safe upper level for long-term use

BASIC SAFETY RULES

- Avoid eating raw eggs, meats, or seafood (including sushi and oysters/shellfish).
- Wash fruits and vegetables thoroughly.
- Use a separate cutting board for raw meats.
- Wash hands, utensils, and cutting boards with soap and water after each use.
- Water safety is extremely important, as water can carry a variety of parasites, bacteria, and viruses. To protect yourself against these infections, here are some helpful hints:
- Do not drink water from lakes, ponds, rivers, or streams.
- You may choose to use a store-bought water filter at home for your drinking water.
- You can significantly reduce your risk of water-borne illness by using only boiled water for drinking and cooking.
- When travelling abroad in areas where sanitation is poor or water safety is questionable, drink only bottled water and avoid ice or unpasteurized juices and drinks.

SUMMARY

- Carbohydrates provides your body with sufficient energy
- Process medications and help manage their side effects.
- Help manage HIV symptoms and complications.
- Keep your immune system stronger so you can better fight disease.
- Improve your overall quality of life by providing nutrients your body needs.
- Good nutrition can have several benefits.
- Mix your food choices everyday and aim for variety
- Vitamins and minerals regulate your body's processes
- Fat provides extra energy (get the right type)
- Protein helps build muscles, organs, and a strong immune system.

THANK YOU

STAY HEALTHY WITH HIV

People living with HIV often have other health issues.

See your provider regularly.



References:
www.slideshare.net
www.scribd.com