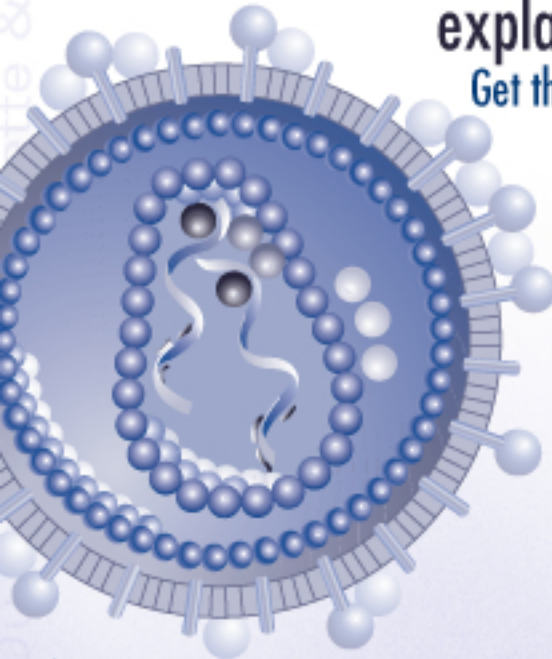


HIV and AIDS explained

Get the facts



What is HIV?

Human immunodeficiency virus (HIV) is a virus that slowly destroys cells in the immune system.

The immune system?

HIV infects white blood cells known as helper T cells when it enters the bloodstream. Also known as helper T lymphocytes, these cells promote the response of other immune cells that help to destroy invading organisms and cancerous cells. HIV infects, reproduces within, and eventually kills helper T cells and releases new virus particles that infect other cells.

What is AIDS?

AIDS stands for Acquired Immune Deficiency Syndrome:

- Acquired means an infection from outside the body.
- Immune Deficiency means a weakness in the body's system that fights diseases.

- Syndrome means a group of health problems that make up a disease.

Where did it come from?

There are two species of HIV, HIV-1 and HIV-2. Both arose in Africa as viruses of animals infecting man.

- HIV-1 arose in Central Africa from the closely related chimpanzee lentivirus whilst,
- HIV-2 was acquired in West Africa from the sooty Mangabey monkey. It is thought that humans became infected when slaughtering primates for the bush meat trade.

How does HIV spread? - Route of infection:

- Having sex with an HIV positive person
 - Vaginal • Rectal • Oral
- Mother to child transmission (Vertical transmission)
 - Through the placenta (± 10%) • During birth (in the uterus or birth canal) (± 60%) • Breast-feeding (± 30%)
- Blood product transfusion – this route is now extremely rare, but is possible where a donor donated blood in the early phase of infection, prior to the development of antibodies.
- Needle prick
 - Sharing of needles • Accidental (mostly healthcare workers)

You can infect someone by

- Having sex without a condom
- Sharing injection needles
- Bleeding into an open wound of someone
- HIV positive woman has a baby
- Breast feeding
- Sharing a shaving blade
- Traditional ceremony where a blade is used more than once

You cannot infect someone by

- Sharing pots, knives, forks
- Sleeping in the same bed
- Using the same toilet or chair
- Touching, hugging or kissing
- Mosquito bites
- Sharing your toothbrush
- Coming in contact with vomit, tears, urine, stool which contains no blood

What are the acute symptoms of HIV?

If a person is infected, a non-specific acute viral infection follows after about 2-4 weeks after initial exposure to HIV. However, there have been instances in which up to 10 months have passed between contracting HIV and developing associated signs and symptoms, which include:

- Fever
- Enlargement of the lymph nodes
- Sore throat
- Open sores or ulcers on mucous membranes and the skin
- Rash
- Diarrhoea
- Muscle and joint pain
- Headache
- Nausea and vomiting
- Lack of appetite and weight loss
- Fatigue

However, no one should assume they are infected if they have any of these symptoms. Each of these symptoms can be related to other illnesses. Again, the only way to determine whether you are infected is to be tested for HIV.

Testing for HIV

Testing of HIV is done by:

- Blood tests
- Oral smear test

- Urine tests

Early Detection and the Window Period

- Antibodies that are specific to HIV are produced shortly after infection.
- Antibodies may be present at low levels during early infection but still below the detection limit of some tests.

This period before a test becomes positive is known as the window period. The window period in most patients can be lowered to 2 - 3 weeks using different detection assays.

Viral loads and CD4+ counts

After the diagnosis of HIV infection has been made, the severity of disease, rate of progression, prognosis and outcomes can be assessed by measurement of certain laboratory markers. Both the CD4+ count as well as the viral load measurement are blood tests that have become widely regarded as essential for the optimum management of HIV-infected individuals.

Prevention of HIV infection

- Behavioural change
- Prevention such as
 - condoms,
 - sterile needles,
- testing and counselling
- post-exposure prevention with anti-retroviral therapy

Voluntary and confidential HIV testing (VCT) with pre- and post-test counselling is a vital component of HIV/AIDS prevention. Pregnant HIV-positive women and positive couples who wish to have children, can additionally be advised on preventing mother-to-child transmission. Individuals with a negative result can be educated to maintain their negative status.

What are opportunistic infections?

Due to a falling immune system patients may develop infections with certain organisms that usually do not cause disease in people with healthy immune systems. These are known as "opportunistic infections." In patients with acute HIV/AIDS, such opportunistic infections most often include an overgrowth of Candida in the mouth or esophagus.

Is there a Cure for AIDS?

There is no cure for AIDS. There are drugs that can slow down the progression of HIV/AIDS, and slow down the damage to your immune system. Currently no treatment exists to kill the virus. Drugs are available to prevent and treat opportunistic infections.

Before you risk it

- Get the facts
- Know the risks
- Stay informed