

## HIV and AIDS

### Overview

HIV (Human Immunodeficiency Virus) is a virus, which attacks the body's immune system and destroys its natural ability to fight infections. Without treatment, HIV can develop into AIDS (acquired immune deficiency syndrome) within several years of infection. At that stage the body is no longer able to fight against infection and other diseases, especially some forms of cancer.

The virus is spread by sharing body fluids – most often through unprotected sex or drug users sharing needles. In the early stages there are often no symptoms, but later fevers, a sore throat, sweats, weight loss, swollen glands and purplish rashes are common, depending on the stage of the disease.

Thanks to the development of effective anti-viral treatments people with HIV are living longer, healthier lives than they did when it was first discovered in the 1980s. The World Health Organisation estimates some 33 million people are living with HIV worldwide.

### Causes

There are two types of HIV (Human Immunodeficiency Virus) – HIV-1 and HIV-2.

Infection occurs through the transfer of blood, semen, vaginal fluid, anal fluids or breast milk. The most common forms of transmission are unsafe sex, contaminated needles, breast milk and mother to baby infection at birth.

Screening processes for blood products have largely eliminated the risk of contracting HIV from a blood transfusion in Australia.

### Symptoms

HIV (Human Immunodeficiency Virus) infection

has five basic stages.

- ▶ **The incubation period.** This usually lasts two to four weeks with no symptoms.
- ▶ **The acute infection stage.** This lasts an average of 28 days. While some people show no symptoms of infection at this point, most will display some combination of :
  - ▶ Flu-like symptoms such as a sore throat.
  - ▶ Tiredness.
  - ▶ Swollen lymph nodes.
  - ▶ Aches and pains.
  - ▶ Fever.
- ▶ A rash, however, its presentation at this stage is rare.

**The clinical latency stage.** During this period HIV is very active in the body but the person's immune system is able to keep regenerating and control the virus to a large extent. As a result, the person feels quite well and may have no outward signs that they have HIV. This can last for months or years without treatment.

**Symptomatic HIV.** During this phase the person's immune system is beginning to lose the fight with the virus. Their immunity gradually becomes more damaged and they start to get troublesome infections like tinea, vaginal thrush, shingles or chest infections more often. They can become more easily tired, experience fevers and sometimes lose weight.

#### ▶ **AIDS is the fifth stage of HIV infection.**

In this phase the person will experience more serious infections and other diseases such as pneumonia, tuberculosis, cancer of blood vessels in the skin (Kaposi's sarcoma), lymph node cancer (lymphoma) or serious virus infections of the bowel or the eye. They tend to lose a lot of weight and have serious problems with diarrhoea.

Many people do not know they have been infected. The symptoms are common to many other conditions making it difficult to recognise as an HIV infection. It is also possible for some people to develop AIDS without having been diagnosed with HIV.

Because it is impossible to tell whether someone has the HIV infection without tests, practicing safe sex, (using a condom for vaginal or anal sex), is very important. Not sharing needles is also a must to avoid contracting or transmitting the disease.

### Diagnosis

A doctor will consider a range of factors before reaching a diagnosis of HIV (Human Immunodeficiency Virus) infection. A person's sexual history, history of drug use and so on will be weighed to consider risk, as well as recent symptoms such as fevers and night sweats or oral thrush. A diagnosis of HIV is confirmed with a blood test.

The HIV antibody test is a blood test to find out if you have come into contact with the virus. If you are infected with HIV then HIV antibodies will be present in your blood. The test is considered extremely reliable. A negative result does not warrant further testing, unless the exposure was within the past 3 months, in which case the test should

be repeated again 3 months later.

### Treatment options

To date there is no cure for HIV (Human Immunodeficiency Virus) infection. However, a range of medications are available which aim to control the infection and allow the immune system to recover.

These are delivered as a 'cocktail' of different types of antiretrovirals. Different people will be prescribed different combinations depending on their health, symptoms, viral load (the amount of virus detectable in their blood) and any side effects they experience.

Generally, it is considered that the sooner treatment starts the better. However antiviral therapy is not without side effects in some people, such as light headedness, rashes and liver problems. Another risk with early treatment is if the person is not yet 'ready' to begin or doesn't have enough support to fully adhere to the regimen. Failing to take the pills accurately can reduce the effectiveness of the treatments and increase the risk that the virus will develop resistance to the treatment. Antiretroviral drugs are also expensive, although if professionally prescribed in Australia they are reimburseable for people with CD4 T cell counts below 500 cells per microlitre.

It is generally accepted that treatment should begin before people have symptoms from their HIV infection and before the CD4 T cell count drops below 200 cells per microlitre (200 cells/ $\mu$ L) of blood. There are potential benefits from starting treatment much earlier than this.

People who have not yet begun treatment should be regularly monitored for symptoms. Many people with HIV have a range of health problems separate to the infection itself that need to be managed. For example erectile dysfunction is a common side effect, as is depression and anxiety, cigarette smoking, substance abuse and suicide is also an issue. HIV-positive people also face the pressure of having to manage living for many years with a chronic, stigmatised and potentially life-threatening illness.

Counselling is often advised to help people through the diagnosis and adjustment period. Without treatment, most people infected with HIV will become sick and eventually die. This can occur anywhere between a few months to more than 10 years after the person is infected.

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With treatment however, most people will be able to achieve long term control of the virus in their bodies so that their immune system can recover. Once full immune recovery has been achieved, the life expectancy for people with HIV infection is similar to that of people who don't have the disease.

### Lifestyle and diet

Prevention is considered the best line of defence against HIV.

Safe sex – using a condom for vaginal and anal sex is advised. Injecting drug users should not share needles.

Special care should be taken by health care workers who may be exposed to infected blood. This includes wearing gloves and avoiding needle stick injuries.

Condoms should be used for all vaginal or anal sex except in the setting of a long term monogamous relationship where both partners have been tested for HIV, at least three months after their last sexual activity outside of the relationships. It is desirable that both partners receive their results together so that they can be certain that their partner is being truthful about their status.

### Resources and support

- Australian Federation of AIDS Organisations ([www.afao.org.au](http://www.afao.org.au)).
- National Association of People Living with AIDS ([www.napwa.org.au](http://www.napwa.org.au)).
- Sydney Sexual Health Centre ([www.sesahs.nsw.gov.au](http://www.sesahs.nsw.gov.au)).

[ItsMyHealth.com.au](http://ItsMyHealth.com.au)