

HIV is a virus that damages the immune system. It is transmitted through body fluids. Treatments are available for HIV infection, but there is no vaccine and no cure. AIDS is a late stage of HIV infection.

HIV Infection

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What is HIV?

HIV stands for human immunodeficiency virus. Infection with HIV damages the body's immune system, which makes it more difficult to fight off infections and some cancers.

HIV is a serious infection; more than 70 million people have been infected with HIV and about 35 million have died from HIV worldwide. Now effective treatment has been developed and people with HIV infection who take treatment daily can lead a full and long life.

Recent evidence shows that people who begin HIV treatment early in their infection have better health outcomes than those who begin HIV treatment at a later stage.

Are HIV and AIDS the same thing?

No; AIDS (Acquired Immune Deficiency Syndrome) is a late stage of HIV infection. AIDS is diagnosed when a person with HIV infection has a severely damaged immune system so that they develop a disease caused by an organism that doesn't usually affect healthy people. AIDS is also present if a person with HIV infection develops certain kinds of cancers. People with HIV infection who are on effective treatment do not develop AIDS, as the treatment stops damage to the immune system.

What are the symptoms of HIV infection?

Most people have mild symptoms or no symptoms when they are first infected with HIV. Some people develop a flu-like illness with fever, sore throat, swollen glands or a rash a few weeks after being infected. These symptoms usually disappear without treatment after a week or two. This is called the seroconversion illness. After the initial illness, people with HIV infection usually have no symptoms for many years, despite the virus living in their body.

How is HIV spread?

HIV is in the blood, semen, vaginal fluid or breast milk of an infected person and can be transmitted:

- during anal or vaginal sex without the protection of a condom
- by sharing drug injecting equipment (contaminated needles, syringes and other injecting equipment and drug solutions)
- by unsafe injections, tattoos and other procedures that involve unsterile cutting or piercing
- to a baby during pregnancy, childbirth or breast-feeding.

HIV is not transmitted by kissing or cuddling, by day-to-day social contact such as shaking hands, by sharing cutlery, cups or glasses, by eating food prepared by someone with HIV, through toilet seats, or by mosquito or other insect bites.

Who is at risk of getting infected with HIV?

In Australia, people at the highest risk of getting HIV infection are:

- men who have sex with men
- people who have sex with people from countries with a high rate of HIV infection
- people who inject drugs
- people who had tattoos or other piercings overseas using unsterile equipment
- people who have sex with a person with a high risk of HIV as listed here.

People can be infected with several different sexually transmitted infections at the same time. Having a sexually transmissible infection (STI) makes it easier to also pick up HIV infection. And if someone is HIV positive, having another STI makes them more likely to pass on HIV to sexual partners.

HIV testing is recommended at least once every year for all gay and homosexually active men, and people who inject drugs. Testing within these groups should be done up to every three months if the person has many sexual partners (more than 5 within 3 months) or has anal sex without a condom. HIV testing is also recommended for:

- people with multiple partners or a recent partner change;
- anyone diagnosed with a STI;
- people using pre-exposure prophylaxis to prevent HIV;
- sexual contacts of someone with HIV or at risk of HIV;
- migrants from countries with a high rate of HIV;
- pregnant women; and
- anyone with symptoms of HIV or an AIDS illness.

How is HIV prevented?

HIV infection can be prevented by:

- using condoms every time for anal and vaginal sex
- never sharing needles, syringes or other injecting equipment
- avoiding getting tattooed or having a body piercing done unless you are sure that sterile equipment is being used
- taking pre-exposure prophylaxis (PrEP)
PrEP is an HIV prevention option for people who don't have HIV but who are at high risk of becoming infected with HIV. Recent studies have shown that if a HIV negative person takes PrEP their risk of getting HIV from having sex with a HIV positive person is greatly reduced. PrEP contains two antiretroviral medicines that are also used to treat people who already have HIV infection. Condoms should be used in even if PrEP is being taken.
- a person with HIV infection taking antiretroviral treatment
Antiretroviral medication taken by a HIV positive woman during pregnancy, childbirth and breast-feeding is used to help prevent spread of HIV from a woman to her baby. Antiretroviral treatment, if taken properly so that the level of virus in the blood of the person with HIV is very low, prevents the spread of HIV to sexual partners.

Anyone who is at risk of HIV infection should make sure that they are tested for HIV so that they can be certain that they don't place other people at risk of getting infected with HIV. Treatment should be started as early as possible as this has been shown to result in better health outcomes and dramatically reduces the risk of passing on HIV.

When someone is diagnosed with HIV infection, it is important that other people who may also be at risk, such as sexual partners, are informed that they should be tested urgently for HIV infection. Doctors and nurses can help by informing sexual partners anonymously.

Under the *Public Health Act 2010*, a person with HIV or another notifiable STI must take reasonable precautions to prevent the spread of the STI. Reasonable precautions against the spread of HIV include:

- use of a condom; or
- having an HIV viral load of less than 200 copies/mL, usually resulting from being on effective treatment; or
- seeking and receiving confirmation from a sexual partner that they are taking HIV pre-exposure prophylaxis (PrEP).

What should I do if I have put myself at risk?

If you think you have been very recently exposed to HIV, you may want to consider taking post exposure prophylaxis (PEP). PEP is a combination of drugs taken for one month that can prevent HIV from taking hold after a person has been exposed to the virus. It is important to commence PEP as soon as possible after the exposure, and PEP must be started within 72 hours (3 days). PEP drugs often have side effects and they are not suitable for everyone.

Find out about PEP (<http://www.health.nsw.gov.au/sexualhealth/Pages/post-exposure-prophylaxis.aspx>) by calling the **PEP Information Line on 1800 737 669**.

If your exposure was more than three days ago, you should consult your doctor or a sexual health clinic (<http://www.health.nsw.gov.au/sexualhealth/Pages/sexual-health-clinics.aspx>) about being tested for HIV.

How is HIV diagnosed?

HIV is diagnosed by a blood test. One type of test detects antibodies to the virus, while another type looks for the virus itself. It currently takes between 15-24 days before blood will show a positive test result after a new HIV infection (the window period), and may take longer. This means that if after a recent exposure more than one blood test may be needed over time to rule out a new infection.

How is HIV treated?

Treatment with antiretroviral drugs is very effective at preventing damage to the immune system caused by HIV. People living with HIV on antiretroviral therapy can lead full, long and normal lives. There are health benefits for immediate HIV treatment initiation for people with HIV. Successful treatment greatly reduces the amount of virus in the person's blood and other bodily fluids which prevents spread of the virus to other people.

What is the public health response?

HIV is a notifiable disease in NSW. This means that doctors and laboratory staff are legally required to provide some information about people diagnosed with HIV infection to NSW Health. The information collected is confidential and does not include the names and addresses of people diagnosed with HIV. Public health staff use these data to understand who is at risk of the disease in order to plan activities to prevent new infections in the future and to provide services for people living with HIV.

The NSW HIV Strategy 2016-2020 continues the commitment to achieving the virtual elimination of HIV transmission in NSW by 2020, building on the targets and activities that proved successful in implementing the NSW HIV Strategy 2012-2015. It is based on current evidence, and continues the focus by NSW on preventing, testing for and treating HIV. The Strategy can be found at: <http://www.health.nsw.gov.au/endinghiv/Publications/nsw-hiv-strategy-2016-2020.PDF> .

Further information

The Sexual Health Infoline		Freecall 1800 451 624
ACON	www.acon.org.au	Freecall 1800 063 060 .
Positive Life NSW	contact@positivelife.org.au	Freecall 1800 245 677
Pozhet	pozhet@pozhet.org.au	Heterosexual HIV infoline 1800 812 404
Multicultural HIV/AIDS and Hepatitis C Service	www.multiculturalhivhepc.net	Phone (02) 9515 5030 Freecall 1800 108 098 (outside Sydney).