

What is HIV? By Avert

HIV stands for: **H**uman **I**mmunodeficiency **V**irus

HIV is a [virus](#). Viruses cannot grow or reproduce on their own, they need to infect the cells of a living organism in order to replicate (make new copies of themselves). The human immune system usually finds and kills viruses fairly quickly, but HIV attacks the immune system itself – the very thing that would normally get rid of a virus.

With around 2.7 million people becoming infected with HIV in 2007, there are now an estimated 33 million people around the world who are living with HIV, including millions who have developed AIDS.



What is the connection between HIV and AIDS?

HIV causes [AIDS](#) by damaging the immune system cells until the immune system can no longer fight off other infections that it would usually be able to prevent.

It takes around ten years on average for someone with HIV to develop AIDS. However, this average is based on a person having a [reasonable diet](#), and someone who is malnourished may well progress from HIV to AIDS more rapidly.

How is HIV treated?

[Antiretroviral drugs](#) keep the levels of HIV in the body at a low level, so that the immune system is able to recover and work effectively. Antiretroviral drugs enable many HIV positive people to live long and healthy lives.

[Starting antiretroviral treatment](#) involves commitment – drugs have to be taken every day, and for the rest of a person's life. Adhering to treatment is important, particularly because not doing so increases the risk of [drug resistance](#). [Side effects](#) can make adherence difficult, and are sometimes very severe. There are ways of reducing the impact of these side effects, but sometimes it is necessary to change to an alternative treatment regime.

There are more than 20 [approved antiretroviral drugs](#) in the US and Europe, as well as many [new drugs](#) currently undergoing trials. Although treatment for HIV has become more widely available in recent years, [access to antiretroviral treatment is limited](#) in some parts of the world due to a lack of funding.

How is HIV passed on?

HIV is found in the blood and the sexual fluids of an infected person, and in the breast milk of an infected woman. HIV transmission occurs when a sufficient quantity of these fluids get into someone else's bloodstream.

There are various ways a person can become infected with HIV:

- **Unprotected sexual intercourse with an infected person:** [Sexual intercourse](#) without a [condom](#) carries the risk of HIV infection.
- **Contact with an infected person's blood:** If sufficient blood from somebody who has HIV enters someone else's body then it can pass on the virus.
- **Use of infected blood products:** Many people in the past have been infected with HIV by the use of blood transfusions and blood products which were contaminated with the virus. In much of the world this is no longer a significant risk, as blood donations are routinely tested for HIV.
- **Injecting drugs:** HIV can be passed on when injecting equipment that has been used by an infected person is then used by someone else. In many parts of the world, often because it is illegal to possess them, injecting equipment or works are shared.
- **From mother to child:** HIV can be transmitted from an infected woman to her baby during pregnancy, delivery and [breastfeeding](#).

Certain groups of people, such as [injecting drug users](#), [sex workers](#), [prisoners](#), and [men who have sex with men](#) have been particularly affected by HIV. However, HIV can infect anybody, and everyone needs to know how they can and can't become [infected with HIV](#).

Does HIV have symptoms?

Some people experience a flu-like illness, develop a rash, or get swollen glands for a brief period soon after they become infected with HIV. However, these are also common [symptoms](#) of other less serious illnesses, and do not necessarily mean that a person has HIV.

Often people who are infected with HIV don't have any symptoms at all. It is important to remember that a person who has HIV can pass on the virus immediately after becoming infected, even if they feel healthy. It's not possible to tell just by looking if someone has been infected with HIV.

The only way to know for certain if someone is infected with HIV is for them to be tested.

Testing for HIV



A sign promoting HIV testing in Livingstone, Zambia

It is important for a person to get an [HIV test](#) if they think they may have been at risk of HIV infection.

There are various types of HIV test, but the most commonly used - the antibody or ELISA test - detects HIV antibodies in a person's blood. It is necessary to wait at least 3 months after the last possible exposure before having an HIV antibody test, to be certain of an accurate result.

The prospect of receiving a positive test result (meaning that a person is infected with HIV) may be daunting, but [learning that you are HIV positive](#) is the first step to getting support and staying healthy. HIV testing is also very important for stopping the spread of HIV, as somebody who is aware of their HIV status can take steps to ensure they do not pass on the virus.

How can HIV be prevented?

Despite considerable investment and research, there is currently no vaccine for HIV, and [microbicides](#) (designed to prevent HIV being passed on during sex) are still undergoing trials. However, there are other ways that people can protect themselves from HIV infection, which are the basis of [prevention efforts around the world](#).

Education about HIV and how it is spread is an essential part of [HIV prevention](#). HIV education needs to be culturally appropriate and can take place in various settings, for example lessons at school, media campaigns, or peer education.

Preventing sexual transmission of HIV



HIV and AIDS education for Scouts in the Central African Republic

If a person has sexual intercourse with someone who has HIV they can become infected. 'Safer sex' refers to things that a person can do to minimise their risk of HIV infection during sexual intercourse; most importantly, using [condoms](#) consistently and correctly.

A person can be certain that they are protected against HIV infection by choosing not to have sex at all, or by only doing things that do not involve any blood or sexual fluid from one person getting into another person's body. This kind of sexual activity is the only thing that can be considered 'safe sex'.

[Effective sex education](#) is important for providing young people with the knowledge and skills to protect themselves from sexual transmission of HIV. Comprehensive sex education should develop skills and attitudes that encourage healthy sexual relationships, as well as provide detailed information about how to practise 'safer sex'.

Preventing transmission of HIV through blood

A person can protect him or herself against HIV infection by ensuring that HIV infected blood does not enter their body.

Injecting drug users who share injecting equipment or works are at risk of HIV infection. [Needle exchange](#) programmes can help to prevent HIV transmission among drug users by providing clean needles and disposing of used ones.

Health care workers can be exposed to HIV infected blood while at work. The most effective way to limit their risk of infection is to use [standard precautions](#) with every patient, for example washing hands and wearing protective barriers (gloves, aprons, goggles). In the event that a healthcare worker is exposed to potentially infected blood at work, [PEP](#) (Post exposure prophylaxis) is recommended as an HIV prevention measure.

Preventing mother-to-child transmission

[Mother-to-child transmission](#) of HIV can be prevented by using antiretroviral drugs, which reduce the chances of a child becoming infected from around 25% to less than 2%. Once a child is born, [safer infant feeding](#) practices can also greatly reduce the risk of HIV being passed on from mother to child.

For these precautions to be taken, an HIV positive mother must firstly be aware of her status. This is why [HIV testing in pregnancy](#) is a crucial prevention measure.

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