

## Fast facts about HIV

### What is HIV?

HIV stands for 'human immunodeficiency virus'. HIV is a virus (of the type called retrovirus) that infects cells of the human immune system (mainly CD4 positive T cells and macrophages—key components of the cellular immune system), and destroys or impairs their function. Infection with this virus results in the progressive deterioration of the immune system, leading to 'immune deficiency'.

The immune system is considered deficient when it can no longer fulfill its role of fighting off infections and diseases. Immunodeficient people are more susceptible to a wide range of infections, most of which are rare among people without immune deficiency.

Infections associated with severe immunodeficiency are known as 'opportunistic infections', because they take advantage of a weakened immune system.

### What is AIDS?

AIDS stands for 'acquired immunodeficiency syndrome' and is a surveillance definition based on signs, symptoms, infections, and cancers associated with the deficiency of the immune system that stems from infection with HIV.

### What are the symptoms of HIV?

Most people infected with HIV do not know that they have become infected, because they do not feel ill immediately after infection. However, some people at the time of seroconversion develop "Acute retroviral syndrome" which is a glandular fever-like illness with fever, rash, joint pains and enlarged lymph nodes.

Seroconversion refers to the development of antibodies to HIV and usually takes place between 1 and 6 weeks after HIV infection has happened.

Whether or not HIV infection causes initial symptoms, an HIV-infected person is highly infectious during this initial period and can transmit the virus to another person. The only way to determine whether HIV is present in a person's body is by testing for HIV antibodies or for HIV itself.

After HIV has caused progressive deterioration of the immune system, increased susceptibility to infections may lead to symptoms.

HIV is staged on the basis of certain signs, symptoms, infections, and cancers grouped by the World Health Organization (WHO).

*Interim WHO clinical staging of HIV/AIDS and HIV/AIDS case definitions for surveillance (2005): <http://www.who.int/hiv/pub/guidelines/clinicalstaging.pdf>:*

- Primary HIV infection - may be asymptomatic or experienced as Acute retroviral syndrome
- Clinical stage 1 - asymptomatic or generalized swelling of the lymph nodes
- Clinical stage 2 - includes minor weight loss, minor mucocutaneous manifestations, and recurrent upper respiratory tract infections
- Clinical stage 3 - includes unexplained chronic diarrhoea, unexplained persistent fever, oral candidiasis or leukoplakia, severe bacterial infections, pulmonary tuberculosis, and acute necrotizing inflammation in the mouth. Some persons with clinical stage 3 have AIDS.
- Clinical stage 4 - includes 22 opportunistic infections or cancers related to HIV. All persons with clinical stage 4 have AIDS.

Most of these conditions are opportunistic infections that can be treated easily in healthy people.

### When does a person have AIDS?

AIDS is a surveillance term defined by the United States Centers for Disease Control and Prevention (CDC): <http://www.cdc.gov/ncphi/diss/nndss/print/aidscurrent.htm>, and by the European Centre for the Epidemiological Monitoring of AIDS (EuroHIV): [http://www.eurohiv.org/case\\_definitions/definitions\\_eng.htm](http://www.eurohiv.org/case_definitions/definitions_eng.htm)

The term AIDS applies to the most advanced stages of HIV infection, defined by the occurrence of any of more than 20 opportunistic infections or HIV-related cancers. In addition, the CDC defines AIDS on the basis of a CD4 positive T cell count of less than 200 per mm<sup>3</sup> of blood.

### How quickly do people infected with HIV develop AIDS?

The length of time can vary widely between individuals. The majority of people infected with HIV, if not treated, develop signs of HIV-related illness within 5-10 years, but the time between infection with HIV and being diagnosed with AIDS can be 10–15 years, sometimes longer. Antiretroviral therapy can slow down disease progression to AIDS by decreasing the infected person's viral load.

WHO recommends initiation of antiretroviral therapy for all HIV-infected adolescents and adults who are at clinical stage 4 or have a CD4 positive T cell count below 200 per mm<sup>3</sup>, and for some persons who are at clinical stage 3.

*Antiretroviral therapy for HIV infection in adults and adolescents: Recommendations for a public health approach (2006 revision):*

<http://www.who.int/hiv/pub/guidelines/artadultguidelines.pdf>