

Signs and symptoms

Q.How can I tell if I'm infected with HIV? What are the symptoms?

Ans. The only way to determine for sure whether you are infected is to be tested for HIV infection. You cannot rely on symptoms to know whether or not you are infected with HIV. Many people who are infected with HIV do not have any symptoms at all for many years.

The following may be warning signs of infection with HIV:

- rapid weight loss
- dry cough
- recurring fever or profuse night sweats
- profound and unexplained fatigue
- swollen lymph glands in the armpits, groin, or neck
- diarrhea that lasts for more than a week
- white spots or unusual blemishes on the tongue, in the mouth, or in the throat
- pneumonia
- red, brown, pink, or purplish blotches on or under the skin or inside the mouth, nose, or eyelids
- memory loss, depression, and other neurological disorders

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 infection.

What is the difference between HIV and AIDS?

Human immunodeficiency virus (HIV) is an agent responsible for producing AIDS. AIDS is an acronym for Acquired Immunodeficiency Syndrome.

Once HIV enters the human body, it attacks the white blood cells, which are responsible for coordinating the body's defence mechanisms and protect the body from assaults of various infective organisms like bacteria, virus's, fungi etc.

After HIV enters the human body, the virus silently keeps on reproducing within our immune system engages the virus silently keeps on reproducing within our immune system engages the virus in a battle. The immune response is able to keep a check on the replication of the virus during the initial stage of HIV infection. During this period the person does not develop of any specific symptom or sign. This asymptomatic period can be as long as ten years in almost half the HIV inside the body to the development of any specific symptom is called the "incubation period", also known as the "early stage of HIV disease".

There is a gradual reduction in the number of CD4 lymphocytes and after a certain period their counts reach a low level. This period is variable in different individuals. Generally symptoms start occurring when the absolute CD4 count reaches below 200 cells per cubic milliliter. Such a significant reduction the immune response (bodily resistance), reduces the ability of the body to suppress old infectious agents such as germs of tuberculosis which are lying dormant in the body. It also affects the immune response to infections of common and uncommon bacteria, viruses or fungi that he/she may be exposed to. These infections, which become apparent or develop only in the presence of weakened bodily resistance, are also called "opportunistic infections" and are likely to be severe in its manifestations. Thus, these individuals become an easy target for germs.

When HIV start producing certain specific symptoms or signs of specific indicator diseases, the disease stage is called AIDS or "late stage HIV disease". On an average an AIDS patient generally succumbs to opportunistic infections within a couple of years.

It is essential to avoid loose use of the term AIDS in the asymptomatic period as it is likely to make the patient feel that she/he may die in a couple of years.

What are the first symptoms of HIV infection?

The only way to know for sure whether you are infected with HIV is to have an HIV antibody test.

The symptoms of initial HIV infection are not very specific. If a person is infected, a few weeks after infection some people experience a flu-like illness. Only a fifth of people experience symptoms which are serious enough to require a doctor's attention.

Several years after infection a person may experience symptoms of particular illnesses and cancers. These are the result of the infected person's immune system being damaged by HIV to the point where it is no longer able to fight off these opportunistic infections.

In each case, HIV infection is difficult to diagnose without having taken an HIV antibody test first.

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How do I know if I have AIDS?

You cannot tell whether a person is infected with HIV or has developed AIDS by how they look and appear to you.

A person infected with HIV is diagnosed as having AIDS when they develop an AIDS defining illness. This is the result of HIV weakening their immune system to the point at which it has difficulty fighting off infections that would otherwise be controlled by a healthy immune system. Because these illnesses take advantage of an infected person's immune system to cause illness, they are also known as opportunistic infections.

In many countries anti-viral drugs are available to people with HIV to help reduce the rate at which HIV weakens the immune system. There are also drugs available to prevent and treat some of the specific opportunistic infections.

How does HIV infection develop into AIDS?

Once HIV enters the body of an individual, it disappears into blood cells such as CD4 lymphocytes, macrophage etc. and certain cells of the nervous system. Effective functioning of lymphocytes in the blood especially the CD4 lymphocytes is critical to maintain bodily resistance against different infecting organisms. HIV stays and replicates in such host cells and lymph nodes, resulting in progressive qualitative and quantitative defects in the immune response. HIV quietly destroys the CD4 lymphocytes though the patient may remain asymptomatic in the early stage of HIV disease. This asymptomatic stage lasts for about ten years in 50% of HIV-infected individuals. Recent studies on viral dynamics have shattered the myth that HIV turnover rates are slower and there is no regeneration of CD4 lymphocytes. Current estimates suggest that at least 10 billion HIV particles are produced and destroyed everyday. Simultaneously, about 5-6% of the total CD4 lymphocyte count and plasma HIV viral load are useful in assessing the stage of HIV disease.

As the number of CD4 lymphocytes gets reduced, the dormant infections in the body such as tuberculosis, herpes etc. get reactivated. Concurrently, the body becomes vulnerable to many new infections including those which do not normally have the capability to invade the human body such as fungi, pneumocystis carinii etc. In the late stages of HIV infection, when the patient becomes symptomatic, the body harbors many disease-causing germs. The constellation of certain signs and symptoms is called AIDS or late stage of HIV disease. When this stage is reached, the CD4 count is generally below 200 cells per cubic millimeter. AIDS patients succumb to such opportunistic illnesses within a couple of years.

What are the external signs and symptoms of AIDS?

The diagnosis of AIDS must be made by a physician and not a patient himself as the symptoms found during this stage can also be a manifestation of certain other disease conditions and not necessarily AIDS. Some of the symptoms are:

- I. Rapid loss of weight of more than 10% of baseline weight in one month (generally more than 5 kg in a month) without any other known cause like dieting, other disease or anxiety leading to loss of appetite.
- II. Loose motions lasting for more than one month.
- III. Cough and/or fever lasting more than one month.
- IV. Ulceration and creamy to yellowish coating in the oral cavity and gastrointestinal tract leading to difficulty in eating hot and spicy food, due to fungus causing thrush (Candidiasis).
- V. Cancer of the skin (Kaposi Sarcoma) and a type of herpes zoster infection.

Does AIDS affect the genitals?

HIV does not affect the genitals of men or women directly. Previous sexually transmitted disease (STDs) like warts, herpes and molluscum may however flare up. They may not respond easily to the routine line of treatment and may recur.

Does AIDS lead to profound weakness?

Weakness is one of the symptoms associated with AIDS. However AIDS alone does not cause it. Weakness may also be found in tuberculosis, high-grade fever, over-exertion, fasting and other such conditions. One should not presume a person has AIDS because s/he has developed general weakness.

Does AIDS lead to development of any painful conditions?

An HIV-infected person may suffer from opportunistic infections caused by bacteria, fungi, viruses. Certain cancers like Kaposi sarcoma and lymphomas may also occur. Some of these diseases may produce different painful conditions in the body depending upon the organism, the type of organs and the disease it produces.

Q. How does infection with TB affect the HIV/AIDS scenario?

Ans. TB shortens the survival of patients with HIV infection, accelerates the progression of HIV to AIDS as observed by a six- to seven-fold increase in the HIV viral load in TB patients and is the cause of death for one out of every three people with AIDS worldwide. Effective treatment using DOTS not only prolongs the survival of patients living with AIDS, but also improves their quality of life.

Q. What are the clinical features of TB and what type of TB is more commonly seen in HIV positive individuals?

Ans. As the HIV infection progresses, the CD4 lymphocytes decline in number and function. Therefore, the immune system is less able to prevent the growth and spread of the TB bacilli. As a result, disseminated and extra-pulmonary TB disease is more commonly seen in the later stages. Nevertheless, pulmonary TB is still the most common form of TB even in HIV-infected patients. Many studies have shown that pulmonary involvement occurs in 70-90 percent of all HIV/AIDS patients with TB.

What are the CLINICAL STAGING OF HIV/AIDS
REVISED WHO CLINICAL STAGING OF HIV/AIDS
FOR ADULTS AND ADOLESCENTS

(Interim African Region version for persons aged 15 years or more with positive HIV antibody test or

other laboratory evidence of HIV infection)^b

TABLE 1. REVISED WHO CLINICAL STAGING OF HIV/AIDS FOR ADULTS AND ADOLESCENTS

Primary HIV infection

Asymptomatic

Acute retroviral syndrome

Clinical stage 1

Asymptomatic

Persistent generalized lymphadenopathy (PGL)

Clinical stage 2

Moderate unexplained weight loss (<10% of presumed or measured body weight)

Recurrent respiratory tract infections (RTIs, sinusitis, bronchitis, otitis media, pharyngitis)

Herpes zoster

Angular cheilitis

Recurrent oral ulcerations

Papular pruritic eruptions

Seborrhoeic dermatitis

Fungal nail infections of fingers

Clinical stage 3

Conditions where a presumptive diagnosis can be made on the basis of clinical signs or simple investigations

Severe weight loss (>10% of presumed or measured body weight)

Unexplained chronic diarrhoea for longer than one month

Unexplained persistent fever (intermittent or constant for longer than one month)

Oral candidiasis

Oral hairy leukoplakia

Pulmonary tuberculosis (TB) diagnosed in last two years

Severe presumed bacterial infections (e.g. pneumonia, empyema, pyomyositis, bone or joint infection, meningitis, bacteraemia)

Acute necrotizing ulcerative stomatitis, gingivitis or periodontitis

Conditions where confirmatory diagnostic testing is necessary

Unexplained anaemia (< 8 g/dl), and or neutropenia (<500/mm³) and or thrombocytopenia (<50 000/ mm³) for more than one month

^b All clinical events or conditions referred to are described in the Annexes. The UN defines adolescents as persons aged 10–19 years but, in the present document, the category of adults and adolescents comprises people aged 15 years and over for surveillance purposes.

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Clinical stage 4

Conditions where a presumptive diagnosis can be made on the basis of clinical signs or simple investigations

HIV wasting syndrome

Pneumocystis pneumonia

Recurrent severe or radiological bacterial pneumonia

Chronic herpes simplex infection (orolabial, genital or anorectal of more than one month's duration)

Oesophageal candidiasis

Extrapulmonary TB

Kaposi's sarcoma

Central nervous system (CNS) toxoplasmosis

HIV encephalopathy

Conditions where confirmatory diagnostic testing is necessary:

Extrapulmonary cryptococcosis including meningitis

Disseminated non-tuberculous mycobacteria infection

Progressive multifocal leukoencephalopathy (PML)
Candida of trachea, bronchi or lungs
Cryptosporidiosis
Isosporiasis
Visceral herpes simplex infection
Cytomegalovirus (CMV) infection (retinitis or of an organ other than liver, spleen or lymph nodes)
Any disseminated mycosis (e.g. histoplasmosis, coccidiomycosis, penicilliosis)
Recurrent non-typhoidal salmonella septicaemia
Lymphoma (cerebral or B cell non-Hodgkin)
Invasive cervical carcinoma