



HIV and AIDS

Overview

Acquired immunodeficiency syndrome (AIDS) is a chronic, potentially life-threatening condition caused by the human immunodeficiency virus (**HIV**). By damaging your immune system, **HIV** interferes with your body's ability to fight the organisms that cause disease. However, it is possible to be infected with HIV without developing **AIDS**. Without treatment, the **HIV** infection can progress and, eventually, it will develop into **AIDS** in the vast majority of cases. Once someone has received an **AIDS** diagnosis, it will always carry over with them in their medical history.

HIV is a sexually transmitted infection. It can also be spread by contact with infected blood or from mother to child during pregnancy, childbirth or breast-feeding. Without medication, it may take years before **HIV** weakens your immune system to the point that you have **AIDS**.

There's no cure for **HIV/AIDS**, but there are medications that can dramatically slow the progression of the disease. These drugs have reduced **AIDS** deaths in many developed nations.



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Causes of HIV and AIDS

HIV is a viral infection that can be transmitted through sexual contact, through blood or from mother to child during pregnancy, childbirth or breast-feeding.

How does HIV become AIDS?

HIV destroys CD4 cells — a specific type of white blood cell that plays a large role in helping your body fight disease. Your immune system weakens as more CD4 cells are killed. You can have an HIV infection for years before it progresses to AIDS.

People infected with HIV progress to AIDS when their CD4 count falls below 200 or they experience an AIDS-defining complication.

How HIV is transmitted?

Sexual transmission - it can happen when there is contact with infected sexual fluids (rectal, genital, or oral mucous membranes). This can happen while having unprotected sex, including vaginal, oral, and anal sex, or sharing sex toys with someone infected with HIV.

Perinatal transmission - a mother can pass the infection on to her child during childbirth, pregnancy, and also through breastfeeding.



Blood transmission - the risk of transmitting HIV through blood transfusion is nowadays extremely low in developed countries, thanks to meticulous screening and precautions. However, among injection or IV drug users, sharing and reusing syringes contaminated with HIV-infected blood is extremely hazardous.

By sharing needles- HIV can be transmitted through needles and syringes contaminated with infected blood. Sharing intravenous drug paraphernalia puts you at high risk of HIV and other infectious diseases, such as hepatitis.

HIV and AIDS myths and facts

There are many misconceptions about **HIV and AIDS**. The virus CANNOT be transmitted from:

- shaking hands
- hugging
- casual kissing
- sneezing
- touching unbroken skin
- using the same toilet
- sharing towels
- sharing cutlery
- mouth-to-mouth resuscitation
- other forms of "casual contact"

Symptoms

HIV symptoms

For the most part, the symptoms of **HIV** are the result of infections caused by bacteria, viruses, fungi, and/or parasites.

The symptoms of **HIV** and **AIDS** vary, depending on the phase of infection.



Primary infection (Acute HIV)

The majority of people infected by **HIV** develop a flu-like illness within a month or two after the virus enters the body. This illness, known as primary or acute **HIV** infection, may last for a few weeks. Possible signs and symptoms include:

- Fever
- Headache
- Muscle aches and joint pain
- Rash
- Sore throat

Clinical latent infection (Chronic HIV)

In some people, persistent swelling of lymph nodes occurs during clinical latent **HIV**. Otherwise, there are no specific signs and symptoms. **HIV** remains in the Clinical latent infection generally lasts around 10 years if you're not receiving antiretroviral therapy. But some people progress to more severe disease much sooner.

Early symptomatic **HIV** infection

As the virus continues to multiply and destroy immune cells, you may develop mild infections or chronic signs and symptoms such as:

- Fever
- Fatigue
- Swollen lymph nodes — often one of the first signs of HIV infection
- Diarrhea
- Weight loss
- Oral yeast infection (thrush)
- Shingles (herpes zoster)



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Progression to **AIDS**

If you receive no treatment for your **HIV** infection, the disease typically progresses to **AIDS** in about 10 years. The signs and symptoms of some of these infections may include:

- Soaking night sweats
- Recurring fever
- Chronic diarrhea
- Persistent white spots or unusual lesions on your tongue or in your mouth
- Persistent, unexplained fatigue
- Weight loss
- Skin rashes or bumps

Diagnosis of HIV and AIDS

HIV blood tests and results

Diagnosis is made through a blood test that screens specifically for the virus. If the HIV virus has been found, the test result is "positive." The blood is re-tested several times before a positive result is given to the patient.



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If a person has been exposed to the virus, it is crucial that they get tested as soon as possible. The earlier HIV is detected, the more likely the treatment will be successful. A home testing kit can be used as well.

After infection with HIV, it can take from 3 weeks to 6 months for the virus to show up in testing. Re-testing may be necessary. If the moment a patient was most at risk of infection was within the last 6 months, they can have the test immediately. However, the provider will urge that another test be carried out within a few weeks.

Treatment

AIDS treatments

There is currently no cure for **HIV** or **AIDS**. Treatments can slow the course of the condition - and allow most infected people the opportunity to live a long and relatively healthy life.

Earlier HIV antiretroviral treatment is crucial - it improves quality of life, extends life expectancy, and reduces the risk of transmission, according to the World Health Organization's guidelines issued in June 2013.

Currently, there is no vaccine or cure for **HIV**, but treatments have evolved which are much more effective and better tolerated - they can improve patients' general health and quality of life considerably, in as little as one pill per day.

HIV PREVENTION

To prevent being infected with HIV, healthcare professionals advise precautions related to:

Unprotected sex - having sex without a condom can put a person at risk of being infected with **HIV** and other sexually transmitted infections (STIs). **HIV** can be spread by having unprotected sex (vaginal, oral, and/or anal sex). It can also be caught from sharing sex toys with someone infected with **HIV**. Condoms should be used with every sexual act.

Doctors In Service Clinics



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Use only water-based lubricants. Oil-based lubricants can weaken condoms and cause them to break. During oral sex use a nonlubricated, cut-open condom or a dental dam — a piece of medical-grade latex

Drug abuse and needle sharing - intravenous drug use is an important factor in **HIV** transmission in developed countries. Sharing needles can expose users to **HIV** and other viruses, such as hepatitis C. Strategies such as needle-exchange programs are used to reduce the infections caused by drug abuse. If someone needs to use a needle, it must be a clean, unused, unshared needle.

Body fluid exposure - exposure to **HIV** can be controlled by employing precautions to reduce the risk of exposure to contaminated blood. At all times, healthcare workers should use barriers (gloves, masks, protective eyewear, shields, and gowns). Frequent and thorough washing of the skin immediately after being contaminated with blood or other bodily fluids can reduce the chance of infection.

If you're pregnant, get medical care right away-If you're **HIV**-positive, you may pass the infection to your baby. But if you receive treatment during pregnancy, you can cut your baby's risk significantly.

Consider male circumcision. There's evidence that male circumcision can help reduce a man's risk of acquiring **HIV**.

Complications

HIV infection weakens your immune system, making you highly susceptible to numerous infections and certain types of cancers.

Infections common to HIV/AIDS



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Tuberculosis (TB)- In resource-poor nations, TB is the most common opportunistic infection associated with HIV and a leading cause of death among people with **AIDS**.

Cytomegalovirus- This common herpes virus is transmitted in body fluids such as saliva, blood, urine, semen and breast milk. A healthy immune system inactivates the virus, and it remains dormant in your body. If your immune system weakens, the virus resurfaces — causing damage to your eyes, digestive tract, lungs or other organs.

Candidiasis- Candidiasis is a common **HIV**-related infection. It causes inflammation and a thick, white coating on the mucous membranes of your mouth, tongue, esophagus or vagina.

Cryptococcal meningitis- Meningitis is an inflammation of the membranes and fluid surrounding your brain and spinal cord (meninges). Cryptococcal meningitis is a common central nervous system infection associated with **HIV**, caused by a fungus found in soil

MANAGING HIV

Adherence - **HIV** treatment is effective if the patient is committed and constant in taking the medication on time. Missing even a few doses may jeopardize the treatment. A daily, methodical routine should be programmed to fit the treatment plan around the patient's lifestyle and schedule. A treatment plan for one person may not be the same treatment plan for another. "Adherence" is sometimes known as "compliance".

General Health - it is crucial for patients to take medication correctly and take steps to avoid illness. Patients should seek to improve their general health and reduce the risk of falling ill by practicing regular exercise, healthy eating, and not smoking.



Additional precautions - **HIV**-infected people should be extra cautious to prevent exposure to infection. They should be careful around animals, avoid coming into contact with cat litter, and animal feces, and often birds too. Meticulous and regular washing of hands is recommended.

Long-term condition - **HIV** is a lasting condition, and therefore patients have to be in regular contact with their healthcare team. Treatment plan is reviewed regularly.

Psychological - common misconceptions about **AIDS** and **HIV** are diminishing. However, the stigma of the condition persists in many parts of the world. People infected with the virus may feel excluded, rejected, discriminated, and isolated.

Being diagnosed with **HIV** can be very distressing, and feelings of anxiety or depression are common. If you feel anxious or have symptoms of depression, seek medical help immediately.

Preparing for your appointment

If you think you might have **HIV** infection, you're likely to start by seeing your family doctor. You may be referred to an infectious disease specialist.

What you can do

Before your appointment, you might want to write a list answering the following questions:

- How do you think you were exposed to **HIV**?
- What are your symptoms?
- Do you have risk factors, such as participating in unprotected sex or using intravenous drugs?
- What prescription drugs or supplements do you take?

What to expect from your doctor

Your doctor will ask you questions about your health and lifestyle. He or she will also conduct a thorough physical exam, checking you for:

- Swollen lymph nodes



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- Lesions on your skin or in your mouth
- Neurological problems
- Abnormal sounds in your lungs
- Enlarged organs in your abdomen

What you can do in the meantime

If you think you might have **HIV** infection, there are some precautions you can take to protect yourself and others before your appointment.

- Have only protected sexual intercourse.
- Inject drugs with a clean needle only, and don't share it with others.