CONDITION

Asymptomatic HIV infection

Learn what asymptomatic HIV infection means, how HIV is diagnosed and treated, and why regular care matters even when no symptoms are present.

WHAT IT IS
HIV infection without current symptoms

BODY SYSTEM
Immune system

MAIN SYMPTOMS
No noticeable symptoms, no physical signs, feels healthy

WHAT CAUSES IT
HIV infection

HOW IT IS DIAGNOSED
HIV testing with follow-up confirmation

MAIN TREATMENT
Antiretroviral therapy

CAN IT BE CURED?
No, HIV remains in the body

IS IT AN EMERGENCY?
Sometimes, severe trouble breathing

LONG-TERM OUTLOOK
Treatment enables many healthy years and near-normal life expectancy

Overview

Asymptomatic HIV infection means a person has human immunodeficiency virus, or HIV, but does not currently have symptoms caused by the infection. This period is sometimes called chronic HIV infection or clinical latency.

Having no symptoms does not mean HIV is inactive. The virus continues to make copies of itself and can gradually damage CD4 cells, a type of white blood cell that helps the immune system fight infection. A person may feel well even while these changes are taking place.

Asymptomatic HIV is not the same as AIDS. AIDS is the most advanced stage of HIV infection. It is diagnosed when the immune system is severely weakened or when certain serious infections or cancers develop. Effective HIV treatment can prevent progression to AIDS.

Antiretroviral therapy, often shortened to ART, can reduce HIV in the blood to a level that standard tests cannot detect. This is called an undetectable viral load. People who take treatment consistently can remain healthy for many years and generally have a life expectancy approaching that of people without HIV.

Maintaining an undetectable viral load also prevents sexual transmission of HIV. This is known as "undetectable equals untransmittable," or U=U.

Symptoms

By definition, asymptomatic HIV infection does not cause noticeable symptoms. A person may look and feel healthy, and there may be no physical sign that HIV is present. Testing is the only way to know a person's HIV status.

Before the asymptomatic stage, some people develop a short illness during the first few weeks after infection. This is called acute HIV infection. Possible symptoms include fever, sore throat, rash, swollen lymph nodes, fatigue, headache, or muscle aches. Other people have no early symptoms.

These symptoms are not specific to HIV. They can occur with influenza, COVID-19, mononucleosis, and many other illnesses. Symptoms alone cannot confirm or rule out HIV.

Without treatment, the immune system may eventually become weaker. Later symptoms can include persistent fever, night sweats, unexplained weight loss, ongoing diarrhea, repeated infections, swollen lymph nodes, mouth sores, or severe fatigue. These symptoms also have many possible causes and need medical evaluation rather than self-diagnosis.

A new HIV diagnosis usually requires prompt outpatient care, but it is not automatically an emergency. Seek urgent medical advice if you have HIV and develop persistent fever, worsening cough, new shortness of breath, severe headache, painful swallowing, or a rapidly spreading rash. Call emergency services for severe trouble breathing, chest pain, confusion, a seizure, fainting, or another immediately life-threatening symptom.

Causes and risk factors

HIV attacks cells in the immune system. It can be transmitted through blood, semen, preseminal fluid, vaginal or rectal fluids, and breast milk.

The most common routes of transmission are sex without effective HIV prevention, sharing needles or other injection equipment, and transmission during pregnancy, birth, or breastfeeding. Transmission through screened blood products is now uncommon in places

with established blood-screening programs.

HIV is not spread by hugging, shaking hands, sharing dishes or toilets, coughing, sneezing, or ordinary social contact. It is not transmitted through sweat, tears, or saliva during routine contact. Insects do not spread HIV.

Factors that may increase the chance of exposure include:

Risk is related to specific exposures, not to a person's identity or sexual orientation. A person taking ART who maintains an undetectable viral load does not transmit HIV through sex.

If a possible exposure happened within the past 72 hours, seek urgent medical advice about post-exposure prophylaxis, or PEP. PEP is a short course of HIV medicine intended to prevent infection after a recent exposure. It works best when started as soon as possible.

- Having vaginal or anal sex with a partner whose HIV status or viral load is unknown
- Sharing needles, syringes, or other equipment used to inject drugs
- Having another sexually transmitted infection, which may make HIV transmission easier
- Receiving medical injections or blood products in settings without adequate safety procedures
- Being exposed to blood through a needlestick or similar occupational incident
- Being born to or breastfed by a person with HIV who is not receiving effective treatment

Diagnosis

HIV cannot be diagnosed from symptoms or a physical examination. Diagnosis requires testing.

Laboratory antigen-antibody tests are commonly used for screening. These tests look for HIV antibodies made by the immune system and for part of the virus called the p24 antigen. Some rapid or home tests look only for antibodies.

No HIV test detects infection immediately after exposure. The time between infection and when a test can reliably detect HIV is called the window period. Its length depends on the type of test. A negative result soon after a possible exposure may need to be repeated.

If very recent infection is suspected, a clinician may order a nucleic acid test, also called an HIV RNA test. It looks directly for the virus and can detect infection earlier than antibody-only tests in some cases.

A reactive screening test is not usually considered a final diagnosis by itself. Laboratories use follow-up testing to confirm the result and identify whether HIV-1 or HIV-2 is present. A

reactive home test also requires confirmation through a healthcare setting.

After HIV is confirmed, initial tests commonly include:

Testing can also identify whether a person needs vaccinations, preventive medicines, or additional specialist care.

- Viral load: Measures how much HIV is in the blood
- CD4 count: Estimates the strength of the immune system
- Drug-resistance testing: Helps identify HIV medicines that may not work against the person's virus
- General health tests: Check blood cells, kidney and liver function, and other conditions that may affect care
- Infection screening: May include hepatitis, tuberculosis, and sexually transmitted infections

Treatment and management

ART is recommended for people with HIV, including those who feel well and have a healthy CD4 count. Starting treatment promptly protects the immune system, lowers the risk of HIV-related illness, and reduces transmission.

ART uses a combination of medicines that block different steps in the HIV life cycle. Many treatment plans are available as a single daily tablet. Long-acting injectable treatment may be an option for some people who have already achieved viral suppression or meet other clinical requirements.

The best regimen depends on factors such as drug resistance, kidney and liver health, pregnancy plans, other medical conditions, and possible interactions with medicines or supplements. Treatment decisions should be made with an HIV clinician rather than based on general online information.

Most people experience a major drop in viral load after starting effective therapy. The goal is to reach and maintain an undetectable level. HIV remains in the body, so treatment controls the infection rather than curing it.

Taking medicine consistently is important. Missed doses or long interruptions may allow the virus to multiply and develop resistance. Anyone having trouble taking ART should tell their care team. Simplifying the regimen, treating side effects, arranging reminders, or addressing costs and access may help. ART should not be stopped without medical guidance.

HIV medicines are generally well tolerated, but side effects and interactions can occur. A

clinician or pharmacist should review prescription drugs, over-the-counter medicines, vitamins, herbal products, and recreational substances.

Management also includes routine vaccinations, sexual health care, mental health support, and treatment for tobacco, alcohol, or substance use when needed. Condoms can help prevent other sexually transmitted infections. Partners without HIV can ask about pre-exposure prophylaxis, or PrEP, even when the person with HIV is working toward viral suppression.

Complications

Untreated HIV can progressively damage the immune system. This may eventually lead to AIDS and increase the risk of opportunistic infections. These are infections that are more likely to become serious when immune defenses are weak, such as certain types of pneumonia, tuberculosis, fungal infections, or infections affecting the brain.

Advanced HIV can also raise the risk of certain cancers, including lymphoma and cervical cancer. Chronic inflammation related to uncontrolled HIV may contribute to heart, kidney, liver, bone, and nervous system problems.

These complications are much less likely when ART is started and the viral load remains suppressed. If the CD4 count is very low, temporary preventive medicine may be used against specific infections while ART helps the immune system recover.

Some people develop inflammatory symptoms soon after beginning treatment for advanced HIV. This is called immune reconstitution inflammatory syndrome, or IRIS. It occurs when the recovering immune system reacts strongly to an existing infection. Clinicians can evaluate and manage this without automatically stopping ART.

HIV may also affect emotional health, relationships, employment, or access to care. Confidential counseling, peer support, social services, and legal resources may be useful.

Follow up

Regular follow-up is needed even when there are no symptoms. Early visits usually focus on whether treatment is working, whether doses are being missed, and whether side effects or interactions are present.

Viral load testing shows how well ART is controlling HIV. It is usually checked after treatment begins or changes and then periodically after suppression is stable. CD4 testing is used to monitor immune function, especially early in care or when the count is low.

Routine care may also include kidney and liver tests, cholesterol and glucose checks, vaccination review, cancer screening, and screening for tuberculosis, hepatitis, and sexually transmitted infections. The timing depends on medical history, medicines, test results, age, and pregnancy status.

Contact the care team between routine visits if medicine is running out, doses are difficult to take, side effects are interfering with daily life, or new symptoms develop. Prompt assistance can often prevent an interruption in treatment.

People who are pregnant, planning pregnancy, or breastfeeding should discuss this promptly with an HIV specialist and pregnancy care clinician. Effective treatment greatly reduces the chance of passing HIV to a baby, but care must be coordinated.

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