# Targets the Body's Immune System

The human immunodeficiency virus (HIV) is a virus that attacks the body's immune system. Over time, and with significant damage to the immune system, it can become harder to fight off infections. When opportunistic infections or cancers begin to develop as a result of a weakened immune system, an individual is considered to have developed acquired immune deficiency syndrome (AIDS), the most advanced stage of HIV. Before the introduction of antiretroviral therapy in the 1990s, an individual infected with HIV could progress to AIDS very quickly. But with early treatment with antiretroviral therapy, a person diagnosed with HIV can live nearly as long as someone without the disease.

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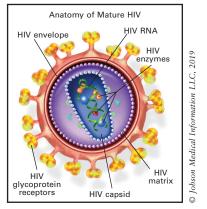


### **PATIENTTEACHINGAID**

## **Bodily Fluids Spread Disease**

HIV is a virus that targets the protein CD4 type T-cells of the body's immune system. The T-cells are responsible for triggering an immune response to infections. HIV destroys the CD4 T-cells, reducing their overall number and ultimately limiting the body's ability to fight off infections and certain types of cancers.

HIV is spread from person to person by exposure to certain bodily fluids of an infected person. Not all body fluids carry HIV, but blood, semen (and preseminal fluid), vaginal fluid, breast milk, and rectal fluid transmit HIV. In the United States, HIV is typically spread via unprotected sexual contact or from sharing needles to inject drugs.



HIV destroys a patient's immune response–triggering T-cells, leaving the individual vulnerable to infections.

#### **Three Phases of HIV Infection**

In the acute phase, about 2 to 4 weeks after infection with HIV, a person may develop flu-like symptoms, such as fever, chills, or a rash. The symptoms can last for several days or a couple of weeks. After symptoms subside, the virus continues to multiply, but at lower levels. This is the second stage, or chronic HIV infection. Patients in this stage may not have symptoms, but they can spread the virus to others.

AIDS is the final and most severe stage of HIV infection, and it is marked by the presence of opportunistic infections or certain cancers. Under normal circumstances, these infections and cancers are well controlled by the body's immune system. But with a significantly weakened immune system, these infections and cancers are able to spread because the body can no longer fight them off.

### **New Advances in Prevention and Treatment**

It is essential to get tested to know your current HIV status. Consider regular testing if you are involved in behaviors that place you at a higher risk, such as intravenous drug use or unprotected sex. Practice safer sex by wearing a condom or by taking medication to treat or prevent HIV infection. Do not participate in intravenous drug use, and if you do, be sure to use sterile injection equipment and never share needles with others.

Pre-exposure prophylaxis (PrEP) are medications that can be taken daily to prevent HIV infection in people who do not have HIV but who are at high risk of becoming infected with HIV. In the U.S., Truvada (emtricitabine/tenofovir disoproxil fumarate) is an FDA-approved, commercially available medication for PReP. Daily use of PrEP medication has been shown to lower the risk of getting HIV from sex by 90% and from injection drug use by 70% or more.

There is no cure for HIV infection. As soon as possible after diagnosing HIV, doctors will prescribe antiretroviral therapy (ART). ART is very useful in slowing HIV progression and maintaining immune function to fight off infection. Compared with earlier versions of ART, today's HIV medications have fewer and less severe side effects, but side effects are still experienced. The most commonly encountered side effects are nausea and vomiting, diarrhea, disrupted sleep, dry mouth, headache, rash, dizziness, fatigue, and pain.

Skipping doses of ART can lead to drug-resistant strains of HIV or a viral mutation that is not responsive to medications. So it is important to take medication every day, exactly as prescribed. If you have questions about your medications or side effects, seek out the help of your healthcare practitioner or your pharmacist.



