

HIV stands for Human Immunodeficiency Virus. It is a virus that attacks the body's immune system, which is the defense system that protects us from infections and diseases. Without a strong immune system, the body becomes more vulnerable to illnesses that it would normally be able to fight off.

A virus is a tiny infectious agent that can only reproduce inside living cells. HIV specifically targets CD4 cells (also called T-helper cells), which are important white blood cells that help the immune system coordinate its defense. When HIV destroys these cells, the immune system becomes weaker.

HIV is most commonly spread through certain body fluids, such as blood, semen, vaginal fluids, rectal fluids, and breast milk. It is not spread by casual contact like hugging, shaking hands, or sharing food. This means everyday interactions with people who have HIV are completely safe.

One of the main ways HIV can spread is through unprotected sex (sex without a condom). It can also spread through sharing needles used for drugs, tattoos, or piercings. In the past, HIV was sometimes spread through blood transfusions, but now donated blood is tested very carefully to prevent this.

If HIV is not treated, it can progress to a stage called AIDS, which stands for Acquired Immunodeficiency Syndrome. AIDS is the most severe stage of HIV infection, where the immune system is badly damaged and the person becomes very vulnerable to infections and cancers that would not normally be life-threatening.

There is no cure for HIV, but there are very effective treatments. The main type of treatment is called antiretroviral therapy (ART). These are medications that stop the virus from multiplying. With ART, people living with HIV can live long, healthy lives, often with a near-normal life expectancy.

A very important idea in HIV care is viral load, which means the amount of virus in the blood. ART can reduce the viral load to such a low level that tests cannot detect it. This is called being undetectable. When someone is undetectable, they cannot pass HIV to others through sex. This concept is often expressed as $U = U$, meaning *Undetectable equals Untransmittable*.

Another important term is prevention. People can reduce their risk of HIV infection by using condoms, never sharing needles, and, in some cases, taking medicine called PrEP (Pre-Exposure Prophylaxis). PrEP is a daily pill that can protect people who are at high risk of HIV.

HIV testing is also very important. Many people with HIV do not have symptoms for years, so the only way to know for sure is through a test. The earlier someone knows their status, the sooner they can begin treatment and protect their health.

HIV is often misunderstood because of stigma, which means negative attitudes or discrimination toward people with the condition. Stigma can make it harder for people to get tested or treated. Education about how HIV is spread and managed helps reduce this stigma.

Globally, HIV has affected millions of people since it was first identified in the early 1980s. However, scientific progress has been remarkable, and what was once seen as a fatal disease is now a manageable condition with proper treatment and care.

HIV is a virus that weakens the immune system, but with treatment, people can live full and healthy lives. Understanding prevention, testing, and treatment helps protect both individuals and communities from the impact of HIV.