HIV/AIDS

Patient Education Module

What Is HIV?

"HIV" stands for Human Immunodeficiency Virus. To understand what that means, let's break it down: H – Human – This particular virus can only infect human beings. I – Immunodeficiency – HIV weakens your immune system by destroying important cells that fight disease and infection. A "deficient" immune system can't protect you. V – Virus – A virus can only reproduce itself by taking over a cell in the body of its host.

HIV is a lot like other viruses, including those that cause the "flu" or the common cold. But there is an important difference – over time, your immune system can clear most viruses out of your body. That isn't the case with HIV – the human immune system can't seem to get rid of it. That means that once you have HIV, you have it for life. We know that HIV can hide for long periods of time in the cells of your body and that it attacks a key part of your immune system – your T-cells or CD4 cells. Your body has to have these cells to fight infections and disease, but HIV invades them, uses them to make more copies of itself, and then destroys them. Over time, HIV can destroy so many of your CD4 cells that your body can't fight infections and diseases anymore. When that happens, HIV infection can lead to AIDS, the final stage of HIV infection.

However, not everyone who has HIV progresses to AIDS. With proper treatment, called "antiretroviral therapy" (ART), you can keep the level of HIV virus in your body low. ART is the use of HIV medicines to fight HIV infection. It involves taking a combination of HIV medicines every day. These HIV medicines can control the virus so that you can live a longer, healthier life and reduce the risk of transmitting HIV to others. Before the introduction of ART in the mid-1990s, people with HIV could progress to AIDS in just a few years. Today, a person who is diagnosed with HIV and treated before the disease is far advanced can have a nearly normal life expectancy. No safe and effective cure for HIV currently exists, but scientists are working hard to find one, and remain hopeful.

What Is AIDS?

"AIDS" stands for Acquired Immunodeficiency Syndrome. To understand what that means, let's break it down: A – Acquired – AIDS is not something you inherit from your parents. You acquire AIDS after birth. I – Immuno – Your body's immune system includes all the organs and cells that work to fight off infection or disease. D – Deficiency – You get AIDS when your immune system is "deficient," or isn't working the way it should. S – Syndrome – A syndrome is a collection of symptoms and signs of disease. AIDS is a syndrome, rather than a single disease, because it is a complex illness with a wide range of complications and symptoms.

As noted above, AIDS is the final stage of HIV infection, and not everyone who has HIV advances to this stage. People at this stage of HIV disease have badly damaged immune systems, which put them at risk for opportunistic infections (OIs).

You are considered to have progressed to AIDS if you have one or more specific OIs, certain cancers, or a very low number of CD4 cells. If you have AIDS, you will need medical intervention and treatment to prevent death.

How Do You Get HIV?

Certain body fluids from an HIV-infected person can transmit HIV. These body fluids are: blood, semen, pre-seminal fluid, rectal fluids, vaginal fluids, and breast milk. These body fluids must come into contact with a mucous membrane or damaged tissue or be directly injected into your bloodstream (by a needle or syringe) for transmission to possibly occur. Mucous membranes are the soft, moist areas just inside the openings to your body. They can be found inside the rectum, the vagina or the opening of the penis, and the mouth.

How Is HIV Spread?

Approximately 50,000 new HIV infections occur in the United States each year. HIV is spread mainly by having sex with someone who has HIV. In general, anal sex is the highest-risk sexual behavior. Having multiple sex partners or having sexually transmitted infections can increase the risk of HIV infection through sex. HIV is also spread by sharing needles, syringes, rinse water, or other equipment ("works") used to prepare injection drugs with someone who has HIV. Less commonly, HIV may be spread by being born to an infected mother. HIV can be passed from mother to child during pregnancy, birth, or breastfeeding. HIV can also be spread by being stuck with an HIV contaminated needle or other sharp object.

Additionally, HIV can be transmitted by the following: receiving blood transfusions, blood products, or organ/tissue transplants that are contaminated with HIV; eating food that has been pre-chewed by an HIV-infected person; being bitten by a person with HIV; oral sex; contact between broken skin, wounds, or mucous membranes and HIV-infected blood or blood-contaminated body fluids; and deep, open-mouth kissing if the person with HIV has sores or bleeding gums and blood is exchanged. HIV is not spread through saliva.

How Do You Get AIDS?

The terms "HIV" and "AIDS" can be confusing because both terms refer to the same disease. However, "HIV" refers to the virus itself, and "AIDS" refers to the late stage of HIV infection, when an HIV-infected person's immune system is severely damaged and has difficulty fighting diseases and certain cancers. Before the development of certain medications, people with HIV could progress to AIDS in just a few years. But today, most people who are HIV-positive do not progress to AIDS. That's because if you have HIV and you take antiretroviral therapy (ART) consistently, you can keep the level of HIV in your body low. This will help keep your body strong and healthy and reduce the likelihood that you will ever progress to AIDS. It will also help lower your risk of transmitting HIV to others.

What Should I Do If I Think I Have HIV?

The only way to know for sure if you have HIV is to get tested. Testing is relatively simple. You can get an HIV test from your doctor or healthcare provider, community health center, Veteran's health center, Title X family planning clinic, and other locations. There also are FDA-approved HIV home test kits you can use.