REDUCING HIV: PREVENT, TEST AND TREAT

Best protection against HIV? Education. Three keys: avoiding risky behaviors, learning your status and knowing treatment options.

In the decades since the HIV (human immunodeficiency virus) epidemic began in the 1980s, tremendous strides have been made in fighting the virus. Lifesaving antiretroviral therapy (ART) drugs have turned an HIV diagnosis from a death sentence to a manageable condition. Prevention efforts have also led to a drop in new HIV infections.

Despite these important advances, in the United States about 40 percent of new HIV infections come from people who don't know they have HIV, and globally only 70 percent of people with HIV know their status.

A key place to start is HIV testing, which allows people who have HIV to know their status, get lifesaving treatment and care and prevent HIV transmission to others.

What is HIV?

It's a virus that attacks and can damage your immune system, making it harder for your body to fend off infections.

Untreated, HIV reduces the number of cells (CD4 cells or T cells) that help the immune system fight infections. Over time, HIV can destroy so many of these cells that the body can't fight off infections and disease. These opportunistic infections or cancers take advantage of a very weak immune system and signal that the person has AIDS, the last stage of HIV infection.

"You can only become infected with HIV through specific types of exposures, such as through sexual interactions and using contaminated needles or syringes. It can also be spread from mother to child during pregnancy, birth or breastfeeding," said Mary Rodgers, Ph.D., a senior scientist in Abbott’s diagnostics business. "Only certain body fluids — blood, semen, pre-seminal fluid, rectal fluids, vaginal fluids and breast milk — from a person who has HIV can transmit HIV."

While there is no cure for HIV, there are effective treatments to manage the disease and slow its progress. Taken the right way, every day, antiretroviral therapy can dramatically prolong the lives of many people infected with HIV, keep them healthy and greatly lower their chance of infecting others.

Protecting Yourself

The best protection against HIV is educating yourself about the virus and avoiding any behaviors that allow HIV-infected fluids — blood, semen and vaginal secretions — into your body.

When condoms are used consistently and correctly, they provide a barrier against these fluids. It is important to use condoms for all sexual activities with partners who have HIV, who are at-risk for HIV or whose sexual history you don't know.

Sharing needles, syringes and other injection equipment is a direct route of HIV transmission. Persons who inject drugs can substantially reduce their risk of getting and transmitting HIV, viral hepatitis and other bloodborne infections by using a sterile needle and syringe for every injection. In many regions, people who inject drugs can access sterile
needles and syringes through syringe services programs or through pharmacies, often without a prescription. Though less common, access to sterile needles and syringes also may be possible through a prescription written by a doctor and through other healthcare services.

If you're HIV-negative and in an ongoing sexual relationship with a partner who is HIV-positive, talk to your doctor about whether it's appropriate for you to take HIV medicines daily (called Pre-exposure prophylaxis, or PrEP) to lower your chance of getting infected. Daily PrEP reduces the risk of getting HIV from sexual activities by more than 90 percent, according to the Centers for Disease Control and Prevention. Among people who inject drugs, daily PrEP reduces the risk by more than 70 percent. Your risk of getting HIV from sexual activities can be even lower if you combine PrEP with condoms and other prevention methods.

**What to Expect from Testing**

Whether you think you may have HIV or feel certain you don't, the only way to know for sure is to get tested.

There are three types of tests available, typically performed on blood or oral fluid:

- **Nucleic acid test (NAT):** This test looks for the actual virus in the blood, but it is not routinely used for screening individuals.
- **Antigen/antibody test:** It looks for HIV antibodies as well as the HIV p24 antigen. Antibodies are produced by your immune system when you're exposed to bacteria or viruses like HIV. HIV p24 antigen is part of the virus that activates your immune system to form antibodies. This antigen is present even before antibodies develop. Antigen/antibody tests are recommended for testing done in labs and are now common in the United States. A rapid antigen/antibody test is also available.
- **Antibody test:** Most rapid tests and home tests are antibody tests. In general, antibody tests that use blood from a vein can detect HIV antibodies sooner after infection than tests done with blood from a finger prick or with oral fluid.

**What You Can Do If You're HIV-Positive**

If you're HIV-positive, there are steps you can take to prevent transmission and maintain your health.

ART drugs have advanced to the point of making the virus undetectable in your body — meaning you can live a healthy life and nearly eliminate your risk of transmission. Research has shown that people living with HIV whose treatment has brought their viral load to an undetectable level are not at risk of sexually transmitting HIV to someone else, according to the CDC.

ART usually consists of a combination of medicines that needs to be taken exactly as your healthcare provider prescribes. However, if you do experience nausea, headache, diarrhea or fatigue, contact your doctor rather than stopping medication. They can adjust your treatment. But the recommendation is to begin medication as soon as you're aware of your status. ART is recommended for all people with HIV, regardless of how long you've had it or how healthy you are.

The thing is, you can't treat this illness unless you know you have it. The CDC cites that 40 percent of new HIV cases are passed through undiagnosed partners. That's where the importance of the HIV testing comes into play.

**The Bottom Line**

"HIV remains a persistent problem in the U.S. and around the world. While great progress has been made in preventing and treating HIV, there is still a big gap in public awareness," said Dr. Rodgers. "Antiviral therapies can help manage HIV, but you need to know your status in the first place to take proper steps to protect your health. An HIV test can be given in many different settings, including hospitals, doctor's offices, clinics, health centers and more."

To find a testing center near you, you can search online at hivtest.org or text your ZIP code to KNOW IT (566948).

Added Dr. Rodgers: "It's critical to talk to your doctor to determine your risk and understand how frequently you should be tested for HIV. Today, more tools than ever are available to prevent and detect HIV, so talk to your doctor about what you can do. If you're living with HIV, there are many actions you can take to prevent passing it to others. The most important things to do are to use precaution during sexual interactions and take medicines to treat HIV the right
way, every day as they can keep you healthy for many years and greatly reduce your chance of transmitting HIV to your partners.”

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