



Patient Information

Update on HIV and AIDS

When a person becomes infected with human *immunodeficiency* (im-mew-no-dih-fish-un-see) virus, better known as HIV, the virus begins to attack the immune system, the body's natural defense against disease. Specifically, HIV destroys certain white blood cells, called CD4 or T cells, that the immune system uses to fight infection.

Most healthy people have over 1,000 CD4 cells in every cubic millimeter of blood. But when HIV infection causes this level to fall below 200, a person is said to have AIDS, or acquired immunodeficiency syndrome. This process usually takes about 10 years.

In 2003, an estimated 40 million people worldwide were living with HIV or AIDS. In the United States, about 900,000 people currently are infected—one quarter of whom are unaware of the infection. While there's no cure for HIV or AIDS, advances in treatment are helping people with the disease live longer, more comfortable lives.

How do I know if I'm at risk?

HIV is transmitted through contact with infected blood, semen, vaginal fluid, or breast milk. Risk of such exposure is greatest if you have anal or vaginal sex without correctly using a condom or if you share drug injection equipment (such as a needle or syringe). You're less likely to contract HIV through oral sex, but using protection is still a good idea.

HIV also can be passed from mother to child during pregnancy, at birth, or through breastfeeding. While transmission through a blood transfusion is possible, it's very rare in the United States today, since all donated blood has been screened for HIV since 1985.

You can't get HIV simply by being around infected people. Even coming into contact with their sweat, saliva, tears, feces, or urine—or sharing food, clothes, drinking fountains, telephones, or toilet seats with them—does not raise your risk of infection.

What are the warning signs?

It's possible to have HIV for years and feel perfectly healthy. If symptoms do appear early on, they're usually mild and similar to those of the flu. They include fever, headache, sore muscles, swollen lymph glands, nausea, diarrhea, chills, night sweats, and rash.

If you already have HIV, a sign of progression to AIDS is the development of certain diseases that are uncommon in healthy people. These are called "opportunistic" infections, because a weakened immune system gives them the opportunity to develop. Symptoms of such infections include difficulty breathing or swallowing; mouth sores or loose teeth; fever lasting more than two days; weight loss; nausea, vomiting, or abdominal cramps; extreme fatigue; severe headaches; or vision problems. Any of these require immediate medical attention.

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What tests do I need?

If you think you may have been exposed to HIV, visit your local health department, doctor's office, or hospital for a screening test. It's best to be tested about six to 12 weeks after possible exposure, because that's when most people who've been infected start to produce HIV *antibodies* (ant-ih-bah-deez), or proteins to fight the infection. But don't wait too long—an early diagnosis can mean a better response to treatment.

During an HIV test, a sample of blood, urine, or cells from inside your mouth is collected and sent to a laboratory. If the sample contains HIV antibodies, it means you're infected. If you test negative three months after exposure, it's a good idea to be tested again at six months. Before using any over-the-counter, home HIV test, make sure it's been approved by the FDA.

If you're diagnosed with HIV infection, you'll need to start having routine tests—usually every three to six months—to monitor the virus' activity in your body. These include a test that counts the number of CD4 cells in your blood and one that measures viral load, or the amount of virus in your blood. These levels help doctors decide when and how you should be treated.

How can I avoid the problem?

To avoid HIV, don't share injection drug equipment or needles used to pierce or tattoo. If you're sexually active, have sex with only one partner who has tested negative for HIV, and use a male or female latex condom every time you have anal, vaginal, or oral sex. If you're allergic to latex, use a polyurethane condom. Don't use a lamb-skin condom because it won't protect you

against HIV. And don't share razors or toothbrushes—these may contain small amounts of fresh blood. If you're HIV-positive and pregnant, you can avoid passing the virus on to your child by taking certain medications and not breastfeeding.

How is it treated?

If you have HIV, your doctor may advise you to be vaccinated against certain infections, take vitamins, quit smoking or using illicit drugs, eat healthier foods, exercise regularly, and get plenty of sleep to keep your immune system as strong as possible.

If your CD4 levels drop too low or your viral load is high, your doctor probably will recommend drug therapy. This involves a combination of powerful medications, including *protease* (**pro**-ee-ace) inhibitors, reverse *transcriptase* (tran-**skrip**-tase) inhibitors, and *nonnucleoside* (non-**new**-klee-uh-side) transcriptase inhibitors. Such drug combinations are known as highly active *antiretroviral* (an-tie-**reh**-troe-vy-rul) therapy, or HAART. These treatments aren't cures, and they often cause many unwanted effects. But when taken *exactly* as directed, they can keep the virus under control for long periods of time. It's very important not to miss a dose, because this can cause the virus to become resistant to the drugs, which in turn, can make the drugs stop working.

HIV changes your life, but it doesn't mean you can't live a long and rewarding one. For emotional, medical, or psychological support in coping with HIV, contact your local health department or call the National AIDS Hotline at (800) 342-2437. ●

