

What you and the people you care about need to know about HIV/AIDS





What is amfAR?

amfAR, The Foundation for AIDS Research, is dedicated to ending the global AIDS epidemic through innovative research. With the freedom and flexibility to respond quickly to emerging areas of scientific promise, amfAR plays a catalytic role in accelerating the pace of HIV/AIDS research and achieving real breakthroughs.

Among its accomplishments, amfAR provided the essential early funding for research that contributed to the development of four of the six classes of lifesaving HIV medications, and pioneered early studies that eventually led to the virtual elimination of mother-to-infant HIV transmission in many parts of the world.

Research conducted by amfAR-funded scientists is bringing us closer to answering questions about HIV that may eventually lead to a vaccine, new drug therapies, and even a cure.

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What is HIV?

HIV stands for human immunodeficiency virus. It is the virus that causes AIDS. When a person is infected with HIV, the virus enters the body and then resides and multiplies primarily in the white blood cells—the immune cells that normally protect us from disease.

What is AIDS?

AIDS stands for acquired immunodeficiency syndrome.

As HIV grows in an infected person, it damages or kills specific immune cells, weakening the immune system and leaving the person vulnerable to infections and illnesses ranging from pneumonia to cancer.

Only when someone with HIV begins to experience one or more of these conditions or loses a significant amount of immune cells are they diagnosed with AIDS.

How do I know if I'm infected?

Soon after infection, some people may develop mild, temporary flu-like symptoms, or persistently swollen glands. Even if you look and feel healthy, you may be infected.

The only way to know your HIV status for sure is to be tested for HIV.

Can I tell whether someone has HIV or AIDS?

You cannot tell by looking at someone whether he or she is infected with HIV or has AIDS. An infected person can appear completely healthy.

How quickly do people infected with HIV develop AIDS?

In some people, AIDS develops soon after infection with HIV. But many people do not develop symptoms for 10 to 12 years, and a few remain symptom-free for much longer.

Early detection and treatment play an important role in keeping HIV at bay. Today's antiretroviral drugs are so effective that most people with HIV live long and relatively healthy lives.

How many people are living with HIV?

Nearly 37 million people are living with HIV worldwide. Many of them do not know they are infected and may be spreading the virus to others. In the U.S., 1.2 million people are living with HIV, and approximately 40,000 Americans become newly infected with the virus each year.

It is estimated that one in eight people living with HIV in the U.S. do not know they are infected.

Photo: Kevin Tachman



How is HIV transmitted?

A person who has HIV carries the virus in certain body fluids, including blood, semen, vaginal secretions, and breast milk. A new HIV infection is established when a virus from these fluids encounters a cell that is susceptible to infection. Usually, HIV is transmitted through:

- Unprotected sexual intercourse (either vaginal or anal) with someone who has HIV.
- Unprotected oral sex with someone who has HIV.
 There are far fewer cases of HIV transmission attributed to oral sex than to either vaginal or anal intercourse, but oral–genital contact does pose a risk of HIV infection.
- Sharing needles, syringes, or other injection equipment with someone who has HIV. HIV can survive in used syringes for a month or more. That's why people who inject drugs should never reuse or share syringes or drug preparation equipment. This includes needles or syringes used to inject both legal and illegal drugs as well as other types of needles, such as those used for body piercing and tattoos.
- Mother-to-child transmission during pregnancy, childbirth, or breastfeeding. Any woman who is pregnant or considering becoming pregnant should be tested for HIV. In the U.S., mother-to-infant transmission has dropped to just a few cases each year because pregnant women are routinely tested for HIV. Those who test positive can get drugs to prevent HIV from being passed on to their fetus or infant. Research shows that a combination of exclusive breastfeeding and the use of antiretroviral treatment can significantly reduce the risk of transmitting HIV to babies

through breastfeeding.

How is HIV not transmitted?

HIV is not transmitted through food or air (for instance, by coughing or sneezing).

There has never been a case where a person was infected by a household member, relative, coworker, or friend through casual or everyday contact such as sharing eating utensils or bathroom facilities, or through hugging or kissing.

In the U.S., screening the blood supply for HIV has virtually eliminated the risk of infection through blood transfusions. And because of strict medical precautions, you cannot get HIV from giving blood at a blood bank or other established blood collection center.

There have been no documented cases of HIV transmission through other body fluids such as sweat, tears, vomit, and urine. Mosquitoes, fleas, and other insects do not transmit HIV.

For those already infected with HIV, preventing transmission to partners is possible. Early and effective antiretroviral therapy (ART) can reduce the risk of transmission to HIV-negative partners by 96%.



Are some people at greater risk of HIV infection than others?

Engaging in certain types of behavior—such as having unprotected sex or sharing drug injection equipment—will increase your risk of contracting HIV.

While in general it is not who you are but what you do that determines whether you are at risk of becoming infected with HIV, in the U.S. the epidemic is concentrated among certain groups:

- More new HIV infections occur among young people aged 13 to 29 than any other age group.
- About 25% of Americans living with HIV are women. In fact, women are at least twice as likely to contract HIV through vaginal sex with infected males than vice versa.
- 67% of all new HIV infections occur in gay men and other men who have sex with men (MSM), even though they represent only 2% of the U.S. population.
- African Americans, who comprise only 12% of the population, account for 45% of all new HIV infections.

Should I get tested?

If you are sexually active or are injecting drugs, you should get tested as soon as possible.

Here's why:

- The survival and long-term health of people with HIV are significantly improved by beginning HIV treatment earlier. Getting tested and starting treatment sooner rather than later means that you can begin to protect your health when it matters most.
- If you are HIV positive, you will be able to take the precautions necessary to protect others from becoming infected, such as consistently using condoms. Treatment reduces your risk of infecting others.
- If you are HIV positive and pregnant, you can take medications to significantly reduce the risk of infecting your infant.

How can I get tested?

You can be tested by your physician, at a local health clinic, or on your own at home.

Conventional HIV tests, including one of the home test kits, the Home Access HIV-1 Test System, are sent to a laboratory for testing. It can take a week or two before the test results are available. The Home Access Express HIV-1 Test System provides results the next business day.

Today, many facilities use rapid HIV tests that can give accurate results in as little as 20 minutes. Similarly, the OraQuick test, which can be purchased at drugstores and used at home, requires only a mouth swab and gives results in about 20 to 40 minutes.

Many states offer anonymous HIV testing. At most testing sites, counselors are available to help you understand the meaning of the test results, suggest ways you can protect yourself and others, and refer you to appropriate local resources.



How can I reduce my risk of becoming infected with HIV through sexual contact?

If you are sexually active, protect yourself against HIV by practicing safer sex.

When used properly and consistently, condoms are close to 99% effective in preventing the transmission of HIV. But remember:

- Use protection each and every time you have sex and limit the number of sexual partners you have.
- Use only latex condoms. A dental dam—a square of latex—is recommended for oral—genital and oral—anal sex.
- Use only water-based lubricants. Latex condoms are virtually useless when combined with oil- or petroleumbased lubricants such as Vaseline or hand lotion.

Limit the use of alcohol or recreational drugs, which can impair judgment.

Pre-exposure prophylaxis (PrEP) is an HIV prevention approach, whereby high-risk HIV-negative individuals take a once-daily pill to prevent infection.

Daily PrEP reduces the risk of getting HIV from sex by more than 90%.

However, taking the medication as prescribed is key. PrEP can be obtained from a healthcare provider.

Is there a link between HIV and other sexually transmitted infections?

Practicing safer sex will help you avoid other sexually transmitted infections (STIs), which can increase your risk of acquiring and transmitting HIV.

HIV-positive individuals who are infected with another STI are more likely to transmit the virus through sex. And HIV-negative individuals who are infected with another STI are at least two to five times more likely than an uninfected person to acquire HIV through sexual contact with an HIV-positive person.

How can I avoid acquiring HIV from a contaminated syringe?

If you are injecting drugs of any type, including steroids, do not share syringes or other injection equipment with anyone else. Detailed HIV prevention information for injecting drug users is available from the CDC's National Prevention Information Network at 1-800-CDC-INFO (1-800-232-4636) or online at www.cdc.gov/idu.

Many cities across the country have syringe services programs (SSPs), which allow people who inject drugs to exchange used needles and syringes for clean ones for little to no cost.

Should I be concerned about HIV if I am getting a tattoo or piercing?

If you are planning to get a tattoo or have any part of your body pierced, be sure to see a qualified professional who uses sterile equipment. Single-use instruments that penetrate the skin should be used once, then disposed of. Reusable instruments that penetrate the skin should be thoroughly cleaned and sterilized between clients.

04/

Treatment and the Search for Solutions



Are there treatments for HIV/AIDS?

Today, a number of drugs are available to treat HIV/AIDS that make it easier than ever to stay healthy.

Many people living with HIV are able to take one pill daily that contains a combination of highly active antiretroviral therapy known as ART. When taken as directed, ART can reduce the amount of HIV in the blood to undetectable levels and enable the body's immune cells to rebound to normal levels. The number of AIDS-related deaths in the U.S. has dropped dramatically because of widely available, effective treatments.

Even when people respond well to ART, however, it does not cure HIV. And while today's ART can dramatically improve the health and well-being of people living with HIV, they may still face long-term side effects from treatment, such as heart disease and other disorders.

Is there a vaccine to prevent HIV infection?

Despite continued intensive research, a vaccine to prevent or even treat HIV is not available yet. Until it is, other HIV prevention methods, such as practicing safer sex, either through PrEP or condoms, and using sterile syringes, are necessary.

Is there a cure for HIV?

While new medications are helping many infected people live normal, healthier lives, HIV is still an infection for which there is no cure. Nonetheless, recent scientific advances have created a groundswell of optimism that a cure could be found.

Timothy Ray Brown, known as the "Berlin patient," is the first and only person in the world to be cured of HIV. Diagnosed with leukemia, Brown received a stem cell transplant from a donor with a rare genetic mutation conferring resistance to HIV. A decade later, he remains virus-free.

While scientists have been unable to replicate the "Berlin patient's" success, they are using the lessons learned from the case to develop a broadly applicable cure.

Through its **Countdown to a Cure for AIDS** Initiative, amfAR is investing \$100 million in the search for a cure.

05/ Join the Fight



Where can I get more information about HIV/AIDS?

There are many valuable sources of HIV/AIDS information, including:

- amfAR: www.amfar.org
- The Centers for Disease Control and Prevention www.cdc.gov/hiv
- The Kaiser Family Foundation's HIV/AIDS information section: www.kff.org/hivaids
- · Your state or local health department
- Your local AIDS service organization
- Joint United Nations Programme on HIV/AIDS (UNAIDS): www.unaids.org

How can I help fight HIV/AIDS?

Everyone can play a role in confronting the HIV/AIDS epidemic.

Here are just a few suggestions for how you can make a difference:

- Volunteer with your local AIDS service organization.
- Talk with your friends and family about HIV/AIDS.
- Sponsor an HIV/AIDS education event or fundraiser with your local school, community group, or religious organization.
- Urge government officials to provide adequate funding for HIV research, prevention education, medical care, and support services.
- Speak out against HIV/AIDS-related stigma and discrimination.
- Support continued research into better treatments, new prevention methods, and ultimately a cure for HIV by making a donation to amfAR.



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