

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

amfAR



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 main 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.

As amfAR's work has touched on related diseases and conditions including hepatitis, certain cancers, COVID-19, and mental health, the Foundation also leverages its 40 years of experience and expertise to address global health challenges beyond HIV.

However, core research conducted by amfAR-funded scientists will continue to focus on answering questions about HIV that may eventually lead to a vaccine, new drug therapies, and even a cure.

For a monthly update on amfAR's programs and activities, sign up to receive amfAR's *Insights* e-newsletter: www.amfar.org/subscribe

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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 have HIV?

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 have HIV.

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 living with HIV or has AIDS. A person living with HIV can appear completely healthy.

How quickly do people infected with HIV develop AIDS?

In most cases, people living with HIV who take their meds as prescribed will not develop AIDS. If HIV is left untreated, AIDS symptoms may take 5–10 years or more to appear, though sometimes less.

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?

Approximately 40 million people are living with HIV worldwide. Many of them do not know they have the virus and may be putting their health and the health of others at risk. In the U.S., nearly 1.2 million people are living with HIV, and approximately 32,000 Americans get HIV each year.

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

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 transmission.
- 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. If treated for HIV early in the pregnancy, a woman's risk of transmitting HIV to her baby can be 1% or less. After delivery, she can prevent transmitting HIV to her baby by avoiding breastfeeding, since breast milk contains HIV.

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 got HIV from 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 transmission 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.

Can I transmit HIV if I'm on treatment and virally suppressed?

In recent years, the scientific data on the effectiveness of antiretroviral therapy (ART) as a means of preventing the transmission or acquisition of HIV has evolved significantly. In fact, it has evolved to a point where in July 2019 the Centers for Disease Control and Prevention (CDC) clarified its position on the issue, declaring on its website that:

"For persons who achieve and maintain viral suppression, there is *effectively no* risk of transmitting HIV to their HIV-negative sexual partner. This translates to an effectiveness estimate of 100% for taking ART regularly as prescribed and achieving and maintaining viral suppression."

amfAR is proud to have been a supporter of the Opposites Attract study, one of the key studies the CDC cites as evidence in support of its position on this matter.



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

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

- 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 37% of all new HIV diagnoses.
- Hispanic/Latino people, who comprise only 18% of the population, account for 32% of all new HIV diagnoses.
- Approximately 1 in 5 new HIV diagnoses in the United States are in youth aged 13 to 24.
- Women (assigned female sex at birth) make up 18% of new diagnoses.
- Nearly half (49%) of new HIV infections are among people living in the South.

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 getting HIV, such as consistently using condoms. Also if taken the right way, every day, the medicine to treat HIV (ART) reduces the amount of HIV (called "viral load") in the blood and elsewhere in the body to very low levels. This is called "viral suppression." Besides being good for an HIV-positive person's overall health, being virally suppressed effectively eliminates the chance of transmitting the virus to a partner.
- If you are HIV-positive and pregnant, you can take medications to significantly reduce the risk of transmitting the virus to 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 some of the home test kits, are sent to a laboratory for testing.

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 getting HIV through sexual contact?

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

When used properly and consistently, condoms are highly 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.

Consider pre-exposure prophylaxis (PrEP) to prevent infection if you are at risk for HIV from sex or injecting drugs. PrEP is a once-daily pill or long-acting injectable treatment that reduces the risk of getting HIV from sex by about 99%.

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

What if I think I have been recently exposed to HIV?

Post-exposure prophylaxis (PEP) is a regimen of HIV medications taken within 72 hours (3 days) after a possible exposure to HIV in order prevent infection. PEP is only prescribed in emergency situations and not regularly available like other prevention tools.

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 getting and transmitting HIV.

HIV-positive individuals who have another STI are more likely to transmit the virus through sex. And HIV-negative individuals who have another STI are at least two to five times more likely than a person who doesn't have an STI to get HIV through sexual contact with an HIV-positive person.

How can I avoid getting 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 https://www.hiv.gov/hiv-basics/hiv-prevention/reducing-risk-from-alcohol-and-drug-use/substance-use-and-hiv-risk.

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.

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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 or a long-acting injectable formulation 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?

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 medications enable most people with HIV to lead full and healthy lives, there is still no cure for HIV. Nonetheless, recent scientific advances have created a groundswell of optimism that a cure can be found.

Timothy Ray Brown, known as the "Berlin patient," was the first 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. For more than a decade, until he lost his battle with cancer, he remained virus-free.

Since then, nine other people—all living with HIV and cancer—have been cured, all as a result of stem cell transplantation. In most cases, the donor cells carried the same rare genetic mutation conferring resistance to HIV.

Stem cell transplants are high-risk procedures, so they are only an option for a very small number of people with both HIV and certain blood cancers. These cases do, however, provide a wealth of information for developing a more widely accessible cure. amfAR is a leader in supporting research aimed at producing a safe and affordable cure for all who need it.

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
- KFF (formerly The Kaiser Family Foundation): 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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