

Frequently Asked Questions HIV Basics

What is HIV?

Human Immunodeficiency Virus (HIV) is the virus that causes AIDS. It attacks the immune system and leaves the body vulnerable to many infections and cancers that rarely develop in HIV uninfected people.

Without treatment, people with HIV infection may have no symptoms, mild health problems, or severe health problems and AIDS. Over time, most HIV-infected persons experience progression of their disease and develop symptoms related to immune system dysfunction.

What is AIDS?

Acquired Immune Deficiency Syndrome (AIDS) is the late stage of HIV infection. By the time a diagnosis of AIDS is made, HIV will already have seriously damaged the body's immune system. Before the use of effective treatment, it commonly took 8-10 years from the time of initial HIV infection to a diagnosis of AIDS. New treatments can dramatically slow the destruction of the immune system caused by HIV and prolong life expectancy.

How is HIV transmitted?

HIV is transmitted when infected blood, semen, vaginal fluids, or breast milk enters another person's body. This most often occurs during unprotected sex or during injection drug use (when needles or other drug paraphernalia (cottons or cookers) are shared). Anyone who is infected with HIV can transmit the virus, whether or not he/she appear sick, has an AIDS diagnosis, or is taking effective treatment for his/her infection. Although patients taking highly active anti-retroviral treatment (HAART) may reduce the blood virus to an undetectable level, they can still infect others. Once infected always infectious. Infected women who become pregnant can transmit HIV to their newborns and are much more likely to do so if they are not treated effectively.

HIV is spread in the following ways:

- *Unprotected sexual intercourse*
HIV can enter the body during sex through the mucous membranes of the anus, vagina, penis (urethra), or mouth, and through cuts, sores, and abrasions on the skin. Unprotected anal and vaginal sex are the riskiest sexual activities. There are a small, but growing, number of reported cases of HIV transmission through oral sex; however, the risk of oral sex transmission is lower than that for anal or vaginal sex. With each of these practices, the receptive partner (vagina, anus, mouth) is probably at greater risk; however, the inserting partner is also at risk.
- *Injection drug use*
Sharing needles or using non-sterile needles and syringes carries a high risk of HIV transmission. Sharing cookers, cottons, and water for mixing/bleaching can also transmit HIV. After use, small amounts of blood can remain in the used needles, syringes, cookers, and cottons. Blood may also remain in the water used for mixing drugs or bleaching equipment. This remaining blood can enter the body of the next user when any of these items are shared. If this blood is HIV infected, transmission can easily occur.

- *From an infected mother to her infant*

HIV can be transmitted from mother to child during pregnancy, during birth, or through breast-feeding. Before treatment with AZT to prevent transmission became routine, about 1 in 4 babies born to HIV-infected women became infected. Now, with effective treatment, the HIV transmission rate from an infected mother to her baby is less than 1 in 100. Consequently, all pregnant women should see their doctor, be tested for HIV, and obtain recommended treatment.

HIV is *rarely* transmitted in the following ways:

- *Blood transfusions and organ transplants*

The risk of acquiring HIV from a blood transfusion today is exceedingly rare; it has been estimated at between 1 per 200,000-2,000,000 transfusions [Goodnough, NEJM 340:438]. The risk of acquiring HIV from an organ transplant is probably similar. Before 1985, there were no tests to screen blood and organ donations for HIV. Today, blood and organ banks screen out most potential donors who are at risk for HIV infection in advance. Accepted donors and their blood are then extensively tested to rule out infection with HIV and other blood-borne germs.

- *The health care setting*

There is a very small, but real, risk of health care workers getting HIV from patients as a result of needle stick accidents and other substantial blood exposures. ***The risk of patients getting infected from health care workers is very small.*** A large series of studies of HIV-infected surgeons and dentists have not shown any transmissions to patients. Nonetheless, seven patients may have become infected from a dentist with AIDS in Florida, and several other transmissions have been traced to surgeons.

HIV is *not* transmitted by:

- *Casual contact*

HIV is **not** spread by casual contact. It dies quickly outside the body and is easily killed by soap and by common disinfectants such as bleach. **There is no risk of HIV infection from:**

- donating blood
- mosquito bites
- toilet seats
- shaking hands
- hugging
- sharing eating utensils
- food or objects handled by people with HIV or AIDS
- spending time in the same house, business, or public place with a person with HIV/AIDS

Who is at risk of HIV infection?

Anyone can become infected with HIV. In the United States, men who have sex with other men and people who use needles to inject illicit drugs are at the highest risk of HIV infection. Female partners of injection drug users and bisexual men account for a growing number of reported AIDS cases in the United States.

About 900,000 persons are believed to be infected with HIV in the United States, including approximately 6,000-9,000 people in King County, Washington.

How can HIV transmission from injection drug use be prevented?

The surest way to completely avoid HIV infection from injection drug use is to abstain. The next surest way is to use a new syringe every time you inject. If new syringes are not available, properly bleaching a used syringe and needle may be an effective method of reducing HIV transmission.

In addition to needles, sharing cookers, cottons, other parts of the syringe (e.g., the barrel and plunger), or water used for mixing/bleaching also can transmit HIV. To avoid infection, these items must not be shared.

Public Health - Seattle & King County operates Needle Exchange Programs in several locations. Needle Exchanges trade new needles/syringes for used ones free of charge. For more information, call the HIV/STD Hotline at (206) 205-STDS (7837).

Drugs -- injected or not -- can also increase a person's risk for HIV by impairing judgment, decision-making ability, and/or by enhancing sexual drive. People who are drunk or high often take more risks than if they were sober.

How can sexual transmission of HIV be prevented?

The surest way to avoid the sexual transmission of HIV infection is to abstain from sexual activity with other people. The next surest way is to have sex with only one partner who is known to be uninfected with HIV and who only has sex with you.

For someone with an HIV positive partner, a partner who does not know their HIV status, or multiple sexual partners, touching, dry kissing, body rubbing, and mutual masturbation are the safest sexual activities. For any penetrative sex acts such as vaginal, anal, or oral sex, condoms are highly effective at reducing the risk of HIV transmission especially when used consistently and correctly. You may ask any clinic staff for condoms at each of your visits.

If you are HIV positive, one should practice safe sex to reduce the further spread of the virus, to avoid acquiring other sexually transmitted diseases or a more aggressive strain of HIV.

For those with a new sex partner, abstain or use condoms for at least 3 months and then get tested for HIV. If you and your partner are both HIV negative and each of you are not engaging in other risk behaviors (e.g., sharing needles or having other sex partners), then you shouldn't have to worry about HIV infection.

What is the HIV Antibody Test?

There are several types of HIV antibody tests used today. All are highly accurate at detecting HIV antibodies, specific proteins made in response to an HIV infection. After infection with HIV, however, it can take up to 3 months for HIV antibodies to develop.

A negative HIV antibody test result means that a person does not have detectable HIV antibodies at the time of the test. Since it can take up to 3 months after HIV infection for antibodies to develop, a negative test result is reliable *only* if the person has **not** had any sexual or needle-sharing risk behavior during the 3 months prior to testing. Some people with recent risk behavior will test HIV antibody negative but be infected with HIV. These people are likely to be highly infectious and may easily transmit HIV to their sex and needle-sharing partners. Finally, a negative test result does **not** mean that a person is safe from future HIV infection. People who test HIV antibody negative are

urged to continue to follow HIV prevention guidelines to avoid becoming infected. People who continue risk behaviors should retest at least every 6 months.

A positive HIV antibody test result means that HIV antibodies are present and that the person has HIV infection. It does not mean the person has AIDS, although many HIV-positive people may develop AIDS after years of infection with HIV. Anyone who tests HIV-positive can transmit the virus to others, regardless of how long they have been infected, whether they have AIDS or other symptoms, or whether their HIV infection is being treated effectively. It is extremely important that HIV-positive people follow HIV prevention guidelines, not only to protect their partners from getting HIV infection, but also to protect themselves from infection with other germs that could cause HIV/AIDS-related disease and avoid acquiring a more aggressive type of HIV.

People at increased risk of HIV infection should NEVER donate blood, plasma, or other organs, or go to such facilities to be tested. Public Health offers HIV antibody testing and counseling to all people at risk for infection. All test results are confidential; anonymous testing is also available. HIV antibody testing is also available at a variety of other sites, and HIV home test kits are available in local pharmacies. For risk assessment and referral to testing sites, call the HIV/STD Hotline at (206) 205-STDs (7837).

Do condoms provide 100% protection from HIV?

No, condoms are not 100% effective at preventing HIV transmission; however, **when used correctly and consistently, condoms are highly effective and reliable in reducing the risk of transmitting and acquiring HIV and other sexually transmitted diseases (STDs).** The surest ways to avoid the sexual transmission of HIV (and other STDs) is:

1. to abstain from sex, or
2. to have sex with only one partner known to be uninfected. The next surest way is to use condoms consistently and correctly during all penetrative sexual acts. When condoms do fail, it is most often because of improper and/or inconsistent use.

The following these basic rules will further reduce the small chance of condom failure:

1. Use latex (rubber) or polyurethane condoms. These are preferable to "natural skin" condoms, which may have tiny holes through which HIV may pass.
2. Choose a condom that fits. Condoms come in different sizes, shapes, and styles. Experiment with different condoms and practice putting them on **before** intercourse. Also practice your negotiating skills by talking with a close friend about your desire and intention to use condoms.
3. Open and handle condoms carefully. Never use a condom in a damaged package or one that is past its expiration date. Do not store condoms in hot or sunny places (for example, in a wallet or by a window).
4. Use plenty of **water-based lubricant** to reduce the friction that can cause breakage. **Never** use oil-based lubricants like Vaseline, hand cream, Crisco, or mineral oil which can rapidly break down latex and allow the virus to pass through. Water-based lubricants include K-Y Jelly, Slippery stuff, ForPlay, and most contraceptive jellies.
5. Put the condom on after erection but **before** insertion. Leave some room at the tip for the discharged semen (some condoms have a reservoir tip for this). It is important to pinch the tip as you roll it down onto the penis to be sure that there are no air bubbles that could pop under pressure. **If the penis is uncircumcised**, pull back the foreskin before unrolling the condom all the way down to the base of the penis.
6. After intercourse, withdraw the penis while still erect, holding the base of the condom to prevent it from slipping off or spilling semen. Remove the condom and wash the penis with soap and water.
7. Use a condom only once and dispose of it in the garbage; do not flush condoms down the toilet. Never reuse a condom.

8. If a condom breaks during sex or one has unprotected sex with an HIV positive patient, there is treatment that may reduce the chance of acquiring HIV if care is sought immediately. If one is exposed to HIV (sexually or through needles), one can call the Madison Clinic at 731-5100 for advice or if after hours go immediately to the Harborview emergency room (phone number: 731-3074; 1 West Hospital).

What are the symptoms of a new HIV infection?

Approximately 50-90% of people with new HIV infections have mild to severe "flu-like" symptoms approximately 2 weeks to 3 months after the HIV exposure. Some people do not have any symptoms. In general, symptoms are not a reliable indicator of HIV infection. Many people with HIV infection do not experience symptoms for many years after infection. Likewise, many people with the symptoms listed below do not have HIV infection. An HIV antibody test taken 1 to 3 months after a potential exposure can tell you if infection has occurred. Many of the symptoms of HIV infection are the same as for other, less serious illnesses.

People who may have been exposed to HIV should see a doctor promptly if the following symptoms occur within 3 months of the exposure:

- **A persistent fever** of over 101 degrees that lasts for more than 2 days that is without a known cause.
- **Night sweats** that soak your pajamas or sheets when the room is not hot and heavy covers are not being used.
- **A persistent rash** of unknown cause.
- **Persistent swollen glands** (lumps under the skin) which occur in several places at once (especially the neck, armpits and groin).
- **Sore throat**
- **Constant tiredness**

Is there for a cure for HIV?

No, but, in recent years, medical providers have become much better at identifying, monitoring, and treating HIV infection and AIDS. In particular, drugs known as protease inhibitors -- when used in combination with other antiretroviral drugs -- may dramatically improve the health and quality of life for many people living with HIV/AIDS. While there is not currently a cure, vaccine or a microbicide for HIV/AIDS, there are many things that people infected with HIV can do to keep themselves healthy and to live longer. ***The first step for anyone who has HIV infection*** is to see a knowledgeable medical provider. This provider will be able to assess and monitor the infection, and, if appropriate, prescribe antiretroviral medicines. The benefits of early diagnosis and treatment of HIV/AIDS are important reasons for people at risk for HIV infection to learn their HIV antibody status through testing.

For people not infected, but at increased risk of infection, it is important to get tested regularly (every 3-6 months) for HIV antibodies. One purpose of regular testing is to assure that those who are newly infected with HIV may be assessed and treated at the earliest possible opportunity. Another purpose is to minimize the chance of HIV transmission when people are newly infected and highly infectious. In addition, it is hoped that people who are placing themselves at continued risk for HIV, will reduce this risk with the counseling that occurs with testing.

Although medical care and drugs are expensive, programs exist to ensure that people with HIV infection and AIDS can get assessment and treatment.