

## **HIV transmission - Frequently Asked Questions (FAQs)**

By AVERT (<http://www.avert.org/faq1.htm>)

### **What are the main routes of HIV transmission?**

These are the main ways in which someone can become infected with [HIV](#):

- Unprotected penetrative sex with someone who is infected.
- Injection or transfusion of contaminated blood or blood products, donations of semen (artificial insemination), skin grafts or organ transplants taken from someone who is infected.
- From a mother who is infected to her baby; this can occur during pregnancy, at birth and through breastfeeding.
- Sharing unsterilised injection equipment that has previously been used by someone who is infected.

### **Can I be infected if my partner doesn't have HIV?**

No. Like all sexually transmitted infections, HIV cannot be 'created', only passed on. If you are sure that your partner does not have HIV, then there is no risk of acquiring it, even if you do have unprotected sex (whether it be vaginal, anal or oral). However, pregnancy and other [sexually transmitted diseases](#) (if your partner has one) remain a risk, so you should still use a condom or other suitable form of birth control wherever possible.

### **How safe is oral sex?**

Although it is possible to become infected with HIV through [oral sex](#), the risk of becoming infected in this way is much lower than the risk of infection via unprotected sexual intercourse with a man or woman.

When giving oral sex to a man (sucking or licking a man's penis) a person could become infected with HIV if infected semen came into contact with damaged and receding gums, or any cuts or sores they might have in their mouth.

Giving oral sex to a woman (licking a woman's vulva or vagina) is also considered relatively low risk. Transmission could take place if infected sexual fluids from a woman got into the mouth of her partner. The likelihood of infection might be increased if there is menstrual blood involved or if the woman is infected with another sexually transmitted disease.

The likelihood of either a man or a woman becoming infected with HIV as a result of receiving oral sex is extremely low, as saliva does not contain infectious quantities of HIV.

More information can be found in our [oral sex & HIV](#) page.

### **[What are the chances of becoming infected with HIV if he doesn't come inside me?](#)**

Whilst research suggests that high concentrations of HIV can sometimes be detected in pre-cum, it is difficult to judge whether HIV is present in sufficient quantities for infection to occur. To guard against the possibility of infection with HIV or any other STD it is best to practise safer sex, i.e. sex with a condom.

### **[Is deep kissing a route of HIV transmission?](#)**

Deep or open-mouthed kissing is a very low risk activity in terms of HIV transmission. HIV is only present in saliva in very minute amounts, insufficient to cause infection with HIV.

There has been only one documented case of someone becoming infected with HIV through kissing; a result of exposure to infected blood during open-mouthed kissing. If you or your partner have blood in your mouth, you should avoid kissing until the bleeding stops.

### **[Are lesbians or other women who have sex with women at risk for HIV?](#)**

Lesbians/bisexual women are not at high risk of contracting HIV through woman-to-woman sex. Very few women are known to have passed HIV on to other women sexually, though it is theoretically possible if infected vaginal fluids or blood from an HIV positive partner enter the other woman's vagina (perhaps on fingers or sex toys).

AVERT has more information about [lesbians](#), bisexual women & HIV.

### **[Is unprotected anal intercourse more of an HIV risk than vaginal or oral sex?](#)**

Unprotected anal intercourse does carry a higher risk than most other forms of sexual activity. The lining of the rectum has fewer cells than that of the vagina, and therefore can be damaged more easily, causing bleeding during intercourse. This can then be a route into the bloodstream for infected sexual fluids or blood. There is also a risk to the insertive partner during anal intercourse, though this is lower than the risk to the receptive partner.

### **[Does 'fingering' during sex carry a risk of HIV transmission?](#)**

Inserting a finger into someone's anus or vagina would only be an HIV risk if the finger had cuts or sores on it and if there was direct contact with HIV infected blood, vaginal

fluids or semen from the other person. There might also be a risk if the person doing the fingering had HIV and their finger was bleeding.

### **Is there a connection between HIV and other STDs (sexually transmitted diseases)?**

HIV and other STDs can impact upon each other. The presence of STDs in an HIV infected person can increase the risk of HIV transmission. This can be through a genital ulcer which could bleed or through increased genital discharge.

An HIV negative person who has an STD can be at increased risk of becoming infected with HIV through sex. This can happen if the STD causes ulceration or breaks in the skin (e.g. syphilis or herpes), or if it stimulates an immune response in the genital area (e.g. [chlamydia](#) or [gonorrhea](#)). HIV transmission is more likely in those with ulcerative STDs than non-ulcerative.

Using condoms during sex is the best way to prevent the sexual transmission of diseases, including HIV. AVERT.org has more information on [STDs](#).

### **Can I become infected with HIV through normal social contact/activities such as shaking hands/toilet seats/swimming pools/sharing cutlery/kissing/sneezes and coughs?**

No. HIV is not an airborne, water-borne or food-borne virus, and does not survive for very long outside the human body. Therefore ordinary social contact such as kissing, shaking hands, coughing and sharing cutlery does not result in the virus being passed from one person to another.

### **Can I become infected with HIV from needles on movie/cinema seats?**

There have been a number of stories circulating via the Internet and e-mail, about people becoming infected from needles left on cinema seats and in coin return slots. These rumours appear to have no factual basis.

For HIV infection to take place in this way the needle would need to contain infected blood with a high level of infectious virus. If a person was then pricked with an infected needle, they could become infected, but there is still only a 0.4% chance of this happening.

Although discarded needles can transfer blood and blood-borne illnesses such as Hepatitis B, Hepatitis C and HIV, the risk of infection taking place in this way is extremely low.

Further information on this topic can be found on the [CDC website](#).

## **Is there a risk of HIV transmission when having a tattoo, body piercing or visiting the barbers?**

If instruments contaminated with blood are not sterilised between clients then there is a risk of HIV transmission. However, people who carry out body piercing or tattooing should follow procedures called 'universal precautions', which are designed to prevent the transmission of blood borne infections such as HIV and Hepatitis B.

When visiting the barbers there is no risk of infection unless the skin is cut and infected blood gets into the wound. Traditional 'cut-throat' razors used by barbers now have disposable blades, which should only be used once, thus eliminating the risk from blood-borne infections such as Hepatitis and HIV.

## **Are healthcare workers at risk from HIV through contact with HIV infected patients?**

The risk to healthcare workers being exposed to HIV is extremely low, especially if they follow universal healthcare precautions. Everyday casual contact does not expose anyone, including healthcare workers, to HIV. The main risk is through accidental injuries from needles and other sharp objects that may be contaminated with HIV.

It has been estimated that the risk of infection from a needlestick injury is less than 1 percent. In the UK for instance, there have been five documented cases of HIV transmission through occupational exposure in the healthcare setting, the last being in 1999. In the US, there were 57 documented cases of occupational HIV transmission up to 2006.

The risk posed by a needlestick injury may be higher if it is a deep injury; if it is made with a hollow bore needle; if the source patient has a high viral load; or if the sharp instrument is visibly contaminated with blood. For further information, see our [HIV and healthcare workers](#) page.

## **Am I at risk of becoming infected with HIV when visiting the doctor or dentist?**

Transmission of HIV in a healthcare setting is extremely rare. All health professionals are required to follow infection control procedures when caring for any patient. These procedures are called universal precautions for infection control. They are designed to protect both patients and healthcare professionals from the transmission of blood-borne diseases such as Hepatitis B and HIV.

## **If blood splashes into my eye, or I get some in my mouth, can I become infected with HIV?**

Research suggests that the risk of HIV infection in this way is extremely small. A very small number of people - usually in a healthcare setting - have become infected with HIV as a result of blood splashes in the eye.

Blood in the mouth carries an even lower risk. The lining of the mouth is very protective, so the only way HIV could enter the bloodstream would be if the person had a cut, open sore or area of inflammation somewhere in their mouth or throat (if the blood was swallowed). Even then, the person would have to get a fairly significant quantity of fresh blood (i.e. an amount that can be clearly seen or tasted) directly into the region of the cut or sore for there to be a risk. HIV is diluted by saliva and easily killed by stomach acid once the blood is swallowed.

### **Can I become infected with HIV through biting?**

Infection with HIV in this way is unusual. There have only been a couple of documented cases of HIV transmission resulting from biting. In these particular cases, severe tissue tearing and damage were reported in addition to the presence of blood.

### **Can I be infected with HIV through contact with animals such as dogs and cats?**

No. HIV is a Human Immunodeficiency Virus. It only affects humans. There are some other types of immunodeficiency viruses that specifically affect cats and other primates, namely the Feline Immunodeficiency Virus (FIV) and Simian Immunodeficiency Virus (SIV). These viruses are of no risk to humans.

Some people have expressed concern that they could become infected if scratched by an animal that has previously scratched an HIV positive person. This is exceptionally unlikely, and there are no documented cases of transmission occurring in this way.

### **Can I get HIV from a mosquito?**

No, it is not possible to get HIV from mosquitoes. When taking blood from someone, mosquitoes do not inject blood from any previous person. The only thing that a mosquito injects is saliva, which acts as a lubricant and enables it to feed more efficiently.

### **Can HIV be transmitted in household settings?**

HIV is overwhelmingly transmitted through sexual contact, through intravenous drug use, through infected blood donations and from mother to child during pregnancy, birth and breastfeeding. HIV is not transmitted through everyday social contact. There have however been a few cases in which it is thought that family members have infected each other through ways other than those stated above.

A case in Australia in the late 1990s involved two sisters. Both tested positive within a month of each other. The risk exposure for the older sister was identified as being sexual

contact she had with a Russian man. The younger sister had had no obvious risk exposures, and investigators concluded that the only possible risk exposure was them sharing a razor to shave their legs. Further analysis established that they did have the same Russian virus strain, not commonly found in Australia.

The other case involved a mother and son, again in Australia, who both tested HIV positive. He had had risk exposures in Thailand some years before, whereas the mother could not identify a possible exposure. The son had had the skin condition psoriasis some time earlier, and the mother's application of the cream to his skin lesions was identified as the only possible route of infection. Analysis showed that they both had the same strain, found in Thailand and not common in Australia.

Whilst HIV transmission between family members and members of the same household is possible, it occurs in extremely low numbers and documented cases are very rare.

### **[Can I become infected with HIV if I inject drugs and share the needles with someone else, without sterilising them?](#)**

There is a possibility of becoming infected with HIV if you share injecting equipment with someone who has the virus. If HIV infected blood remains within the bore (inside) of the needle or in the syringe and someone else then uses it to inject themselves, that blood can be flushed into the bloodstream. Sharing needles, syringes, spoons, filters or water can pass on the virus. Disinfecting equipment between uses can reduce the likelihood of transmission, but does not eliminate it. More information can be found in our [Injecting drugs, drug users and HIV](#) page.

### **[Can I transmit HIV to my baby during pregnancy or breastfeeding?](#)**

An HIV-infected pregnant woman can pass the virus on to her unborn baby either before or during birth. HIV can also be passed on during breastfeeding. If a woman knows that she is infected with HIV, there are drugs she can take to greatly reduce the chances of her child becoming infected. Other ways to lower the risk include choosing to have a caesarean section delivery and not breastfeeding. Read more about [HIV and pregnancy](#).

### **[Does donating blood or having a blood transfusion mean that I am putting myself at risk from HIV?](#)**

Some people have been infected through a transfusion of infected blood. In most countries, however, all the blood used for transfusions is now tested for HIV. In those countries where the blood has been tested, HIV infection through blood transfusions is now extremely rare. Blood products, such as those used by people with haemophilia, are now heat-treated to make them safe.

Donating blood at an approved donation centre should carry no risk, as all equipment should be sterile and blood collection needles are not reused.

## **Can HIV be transmitted outside of the body?**

Whilst HIV may live for a short while outside of the body, HIV transmission has not been reported as a result of contact with spillages or small traces of blood, semen or other bodily fluids. This is partly because HIV dies quite quickly once exposed to the air, and also because spilled fluids would have to get into a person's bloodstream to infect them.

Scientists agree that HIV does not survive well in the environment, making the chance of environmental transmission remote. To obtain data on the survival of HIV, laboratory studies usually use artificially high concentrations of laboratory-grown virus. Although these concentrations of HIV can be kept alive for days or even weeks under controlled conditions, studies have shown that drying of these high concentrations of HIV reduces the amount of infectious virus by 90 to 99 percent within a few hours.

Since the HIV concentrations used in laboratory studies are much higher than those actually found in blood or other specimens, the real risk of HIV infection from dried bodily fluids is probably close to zero. Incorrect interpretation of conclusions drawn from laboratory studies have unnecessarily alarmed some people. AVERT.org has additional facts about [HIV](#) and [AIDS](#).

## **Does circumcision protect against HIV?**

There is very strong evidence showing that circumcised men are about half as likely as uncircumcised men to acquire HIV through heterosexual sex. However, circumcision does not make a man immune to HIV infection, it just means that it's less likely to happen. Male circumcision probably has little or no preventive benefit for women. Read more about [HIV and circumcision](#).

## **If I am taking antiretroviral drugs and have an 'undetectable' viral load, am I still infectious?**

Even if your tests show that you have very low levels of HIV in your blood, the virus will not have been totally eradicated and you will still be capable of infecting others. Some drugs do not penetrate the genitals very well and so do not disable HIV as effectively there as they do in the blood. This means that while you may have little active virus showing up on blood tests, there may still be quite a lot of HIV in your semen or vaginal fluids. Transmission may be less likely when you have a low viral load, but it is still possible so you should always take appropriate precautions.

For more information on this issue read AVERT's [HIV transmission and antiretroviral therapy briefing sheet](#).

## **If I am HIV positive is there a greater risk of contracting Swine flu?**

Currently, there does not seem to be a greater risk of contracting Swine flu if you are HIV positive but as with all types of flu, there can be complications. It is normal for health

services to advise that those living with HIV receive a flu vaccine annually and this is also the case for swine flu.

It has not been confirmed whether those with a [CD4 cell count](#) of less than 200 will be at a greater risk of complications but they should always seek medical advice from their HIV clinic if they start to suffer from flu like symptoms which persist or worsen despite antiretroviral treatment. It can be the case that they are not suffering from swine flu or flu but instead the symptoms could be an [opportunistic infection](#), mistaken for flu.