

## What is HIV?

Ans. HIV (Human Immunodeficiency Virus) is the virus that causes AIDS. This virus is passed from one person to another through blood, using shared needles and sexual contact. In addition, infected pregnant women can pass HIV to their baby during pregnancy or delivery, as well as through breast-feeding. People with HIV have what is called HIV infection. Most of these people develop AIDS as a result of HIV infection.

These body fluids have been proven to spread HIV:

- blood
- semen
- vaginal fluid
- breast milk
- other body fluids containing blood.

Other additional body fluids that may transmit the virus that healthcare workers may come into contact with are:

- cerebrospinal fluid surrounding the brain and the spinal cord
- synovial fluid surrounding bone joints
- Amniotic fluid surrounding a foetus.

## Q. What is AIDS? What causes AIDS?

Ans. AIDS stands for Acquired Immunodeficiency Syndrome. An HIV-infected person receives a diagnosis of AIDS after developing one of the CDC-defined AIDS indicator illnesses. An HIV positive person who has not had any serious illnesses also can receive an AIDS diagnosis on the basis of certain blood tests (CD4+ counts). A positive HIV test result does not mean that a person has AIDS. A diagnosis of AIDS is made by a physician using certain clinical criteria (e.g. AIDS indicator illnesses).

Infection with HIV can weaken the immune system to the point that it has difficulty fighting off certain infections. These type of infections are known as "opportunistic" infections because they take the opportunity a weakened immune system gives to cause illness.

Many of the infections that cause problems or may be life-threatening for people with AIDS are usually controlled by a healthy immune system. The immune system of a person with AIDS is weakened to the point that medical intervention may be necessary to prevent or treat serious illness.

## Q. Where did HIV come from?

Ans. We do not know. Scientists have different theories about the origin of HIV, but none have been proven. The earliest known case of HIV was from a blood sample collected in 1959 from a man in Kinshasha, Democratic Republic of Congo. (How he became infected is not known.) Genetic analysis of this blood sample suggests that HIV-1 may have stemmed from a single virus in the late 1940s or early 1950s.

We do know that the virus existed in the United States since at least the mid to late 1970s. From 1979-1981 rare type of pneumonia, cancer, and other illnesses were being reported by doctors in Los Angeles and New York among a number of gay male patients. These were conditions not usually found in people with healthy immune systems.

In 1982 public health officials began to use the term "Acquired Immunodeficiency Syndrome," or AIDS, to describe the occurrences of opportunistic infections, Kaposi's sarcoma, and Pneumocystis carinii pneumonia in healthy men. Formal tracking (surveillance) of AIDS cases began that year in the United States.

The inescapable conclusion of more than 15 years of scientific research is that people, if exposed to HIV through sexual contact or injecting drug use, may become infected with HIV. If they become infected, most of them will eventually develop AIDS.

## **Q. How long does it take for HIV to cause AIDS?**

Ans. Since 1992, scientists have estimated that about half the people with HIV develop AIDS within 10 years after becoming infected. This time varies greatly from person to person and can depend on many factors, including a person's health status and their health-related behaviours.

Today there are medical treatments that can slow down the rate at which HIV weakens the immune system. As with other diseases, early detection offers more options for treatment and preventative healthcare.

## **Q. Why is the AIDS epidemic considered so serious?**

Ans. AIDS affects people primarily when they are most productive and leads to premature death thereby severely affecting the socio-economic structure of whole families, communities and countries. Besides, AIDS is not curable and since HIV is transmitted predominantly through sexual contact, and with sexual practices being essentially a private domain, these issues are difficult to address.

## **Q. How can I avoid being infected through sex?**

Ans. You can avoid HIV infection by abstaining from sex, by having a mutually faithful monogamous sexual relationship with an uninfected partner or by practicing safer sex. Safer sex involves the correct use of a condom during each sexual encounter and also includes non-penetrative sex.

## **Q. How can children and young people be protected from HIV?**

Ans. Children and adolescents have the right to know how to avoid HIV infection before they become sexually active. As some young people will have sex at an early age, they should know about condoms and where they are available. Parents and schools share the responsibility of ensuring that children understand how to avoid HIV infection, and learn the importance of tolerant, compassionate and non-discriminatory attitudes towards people living with HIV/AIDS.

## **Q. Can injections transmit HIV infection?**

Ans. Yes, if the injecting equipment is contaminated with blood containing HIV. Avoid injections unless absolutely necessary. If you must have an injection, make sure the needle and syringe come straight from a sterile package or have been sterilized properly; a needle and syringe that has been cleaned and then boiled for 20 minutes is ready for reuse. Finally, if you inject drugs of whatever kind, never use anyone else's injecting equipment.

## **Q. Is there a treatment for HIV/AIDS?**

Ans. All the currently licensed antiretroviral drugs, namely AZT, DDL and DDC, have effects which last only for a limited duration. In addition, these drugs are very expensive and have severe adverse reactions while the virus tends to develop resistance rather quickly with single-drug therapy. The emphasis is now on giving a combination of drugs including newer drugs called protease inhibitors; but this makes treatment even more expensive.

WHO's present policy does not recommend antiviral drugs but instead advocates strengthening of clinical management for HIV- associated opportunistic infections such as tuberculosis and diarrhea. Better care programmes have been shown to prolong survival and improve the quality of life of people living with HIV/AIDS

## **Q. Is it safe to work with someone infected with HIV?**

Ans. Yes. Most workers face no risk of getting the virus while doing their work. The virus is mainly transmitted through the transfer of blood or sexual fluids. Since contact with blood or sexual fluids is not part of most people's work, most workers are safe.

## **Q. What about working every day in close physical contact with an infected person?**

Ans. There are no risks involved. You may share the same telephone with other people in your office or work side by side in a crowded factory with other HIV infected persons, even share the same cup of tea, but this will not expose you to the risk of contracting the infection. Being in contact with dirt and sweat will also not give you the infection.

## **Q. Who is at risk while at work?**

Ans. Those who are likely to come into contact with blood that contains the virus are at risk. These include healthcare workers - doctors, dentists, nurses, laboratory technicians, and a few others. Such workers must take special care against possible contact with infected blood, as for example by using gloves.

## **Q. If a worker has HIV infection, should he or she be allowed to continue work?**

Ans. Workers with HIV infection who are still healthy should be treated in the same way as any other worker. Those with AIDS or AIDS-related illnesses should be treated in the same way as any other worker who is ill. Infection with HIV is not a reason in itself for termination of employment.

## **Q. Does an employee infected with the virus have to tell the employer about it?**

Ans. Anyone infected, or thought to be infected, must be protected from discrimination by employers, co-workers, unions or clients. Employees should not be required to inform their employer about their infection. If correct information and education about AIDS are available to employees, a climate of understanding may develop in the workplace protecting the rights of the HIV-infected person.

## **Q. Should an employer test a worker for HIV?**

Ans. Testing for HIV should not be required of workers. Imagine that you are a worker with HIV infection and are healthy and able to work. As far as your work is concerned, the information about the infection is private. If it is made public, you could be a target for discrimination. If AIDS-related illness makes you unfit for a particular job, you should be treated in the same way as any other employee with a chronic illness. A suitable alternative job can often be arranged by the employer. The employers in different parts of the world are beginning to deal with these problems more humanely. Their associations and workers' unions can be consulted for advice.

## **Q. What if you are already infected with HIV? Can you still travel?**

Ans. If you are already infected, consult your healthcare provider for guidance well before you plan to travel. Some immigration officials insist on an HIV free certificate. Your travel counselor will advise you.

## **Q. 'AIDS is mainly a problem of developing countries.' or 'No, AIDS is really a problem of developed countries'. Which of these opinions is more accurate?**

Ans. Many people would like to claim that AIDS only affects others - other people or other countries. AIDS breaks the patterns that we associate with major diseases, for example, linking malaria with the tropics or perhaps heart disease with the industrialized world. AIDS affects both developing and industrialized countries, both cold and hot countries. HIV can spread anywhere where people live and have sex.

## **Q. If a person becomes infected with HIV; does that mean he has AIDS?**

Ans. No, HIV is an unusual virus because a person can be infected with it for many years and yet appears to be perfectly healthy. But the virus gradually multiplies inside the body and eventually destroys the body's ability to fight off illnesses.

It is still not certain that everyone with HIV infection will get AIDS. It seems likely that most people with HIV will develop serious health problems. But this may be after many years. A person with HIV may not know he is infected but can pass the virus on to other people.

## **Q. Is it true that male circumcision may provide protection against HIV infection?**

Ans. Yes, the interior side of the foreskin has a mucosal surface, which is more susceptible to trauma than the tougher skin of the penile shaft or the glans. The foreskin also contains high levels of HIV target cells such as Langerhan's cells. Recent study in Chicago has found out that foreskin mucosal tissue has a seven fold greater susceptibility to HIV-1 than cells in cervical tissue under same condition.

## **Q. What about getting AIDS from body fluids like saliva?**

Ans. Although small amounts of HIV have been found in body fluids like saliva, faeces, urine and tears, there is no evidence that HIV can spread through these body fluids.

## **Q. Could I be at risk?**

Ans. unless they know someone who has HIV, many people think this disease can't happen to them. Unfortunately, it can and does happen to all kind of people. By looking at your current and past sexual and drug practices (and your transfusion history), you can get a picture of your risk for HIV. Also you can figure out how you can reduce your future risk for HIV infection.

## **Q. How can I tell if I have HIV infection?**

Ans. The only way to know for sure if you have this virus is by taking a blood test called the "HIV Antibody Test." Some people call it the "HIV Test" or the "AIDS Test," even though this test alone cannot tell you if you have AIDS. The HIV test can tell you if you have the virus and can pass it to others in the ways already described. The test is not a part of your regular blood tests – you have to ask for it by name. It is a very accurate test.

If your test result is "positive," it means you have HIV infection and could benefit from special medical care. Additional tests can tell you how strong your immune system is and whether drug therapy is indicated. Some people stay healthy for a long time with HIV infection, while others develop serious illness and AIDS more rapidly. Scientists do not know why people respond in different ways to HIV infection. If your test is "negative," and you have not had any possible risk for HIV for six months prior to taking the test, it means you do not have HIV infection. You can stay free of HIV by following prevention guidelines.

## **Q. Should I take the HIV test?**

For some people taking the HIV antibody test can be a scary decision. Some people get tested every six months, even if they practice safer sex. No matter what the reasons are, taking the HIV antibody test can be a good idea. Sometimes taking the test is a way to make a new found commitment towards safer practices. One thing that is important to remember is that getting tested for HIV will not change your HIV status. It just tells you whether or not you have it. With all the new treatments available, finding out your HIV status early on can extend your life.

To find out if you are at risk for HIV, ask yourself the following questions:

- Have you had unprotected vaginal, oral or anal sex (e.g., intercourse without a condom, oral sex without a latex barrier)?
- Have you shared needles to inject street drugs or steroids or to pierce your skin?
- Have you had a sexually transmitted infection (STI) or unwanted pregnancy?
- Have you had a blood transfusion or received blood products before April, 1985?

The counselling that should be provided before and after testing provides a good opportunity to learn more about HIV, discuss your risks and how to avoid infection.

If you are a woman who is planning on getting pregnant, or are currently pregnant, you may want to consider getting tested. There are new treatments to help reduce the transmission of HIV from mother to child.

## **Q. If I am HIV Positive, what should I do?**

Ans. If you have tested positive for HIV, consider the following:

See a healthcare professional for a complete medical check-up for HIV infection and advice on treatment and health maintenance. Make sure you are tested for TB and other STDs. For women, this includes a regular gynecological exam.

Inform your sexual partner(s) about their possible risk for HIV. Your local health department has a partner notification programme that can assist you.

Protect others from the virus by following the precautions talked about on this page (for example, always using condoms and not sharing needles with others).

Protect yourself from any additional exposure to HIV.

Avoid drug and alcohol use, practice good nutrition, and avoid fatigue and stress.

Seek support from trustworthy friends and family when possible, and consider getting professional counseling.

Find a support group of people who are going through similar experiences.

Do not donate blood, plasma, semen, body organs or other tissue.

## **Q. Why do people who are infected with HIV eventually die?**

Ans. When people are infected with HIV, they do not die of HIV or AIDS. They die due to the effects that the HIV has on the body. With the immune system down, the body becomes susceptible to many infections, from the common cold to cancer. It is actually those particular infections, and the body's inability to fight the infections that cause these people to become so sick, that they eventually die.

## **Q. How can I tell if I am infected with HIV? What are the symptoms?**

Ans. The only way to determine for sure whether you are infected is to be tested for HIV infection. You cannot rely on symptoms to know whether or not you are infected with HIV. Many people who are infected with HIV do not have any symptoms at all for many years.

The following may be warning signs of infection with HIV:

- rapid weight loss
- dry cough
- recurring fever or profuse night sweats
- profound and unexplained fatigue
- swollen lymph glands in the armpits, groin, or neck
- diarrhea that lasts for more than a week
- white spots or unusual blemishes on the tongue, in the mouth, or in the throat
- pneumonia
- red, brown, pink, or purplish blotches on or under the skin or inside the mouth, nose, or eyelids
- Memory loss, depression and other neurological disorders.

However, no one should assume he is infected if he has any of these symptoms. Each of these symptoms can be related to other illnesses. Again, the only way to determine whether you are infected is to be tested for HIV infection.

## **Q. How long after a possible exposure should I wait to get tested for HIV?**

Ans. The tests commonly used to detect HIV infection actually look for antibodies produced by your body to fight HIV. Most people will develop detectable antibodies within three months after infection, the average being 25 days. In rare cases, it can take up to six months. For this reason, the CDC currently recommends testing six months after the last possible exposure (unprotected vaginal, anal or oral sex or sharing needles). It would be extremely rare to take longer than six months to develop detectable antibodies.

## **Q. If I test HIV negative, does that mean that my partner is HIV negative also?**

Ans. No, your HIV test result reveals only your HIV status. Your negative test result does not tell you whether your partner has HIV or not. HIV is not necessarily transmitted every time there is an exposure. Therefore, your taking an HIV test should not be seen as a method to find out if your partner is infected.

## **Q. Why is injecting drugs a risk for HIV?**

Ans. At the start of every intravenous injection, blood is introduced into needles and syringes. HIV can be found in the blood of a person infected with the virus. The reuse of a blood-contaminated needle or syringe by another drug injector (sometimes called "direct syringe sharing") carries a high risk of HIV transmission because infected blood can be injected directly into the bloodstream.

In addition, sharing drug equipment (or "works") can be a risk for spreading HIV. Infected blood can be introduced into drug solutions by:

- using blood-contaminated syringes to prepare drugs
- reusing water
- reusing bottle caps, spoons or other containers ("spoons" and "cookers")
- used to dissolve drugs in water and to heat drug solutions
- reusing small pieces of cotton or cigarette filters ("cottons") used to filter out particles that could block the needle.

"Street sellers" of syringes may repackage used syringes and sell them as sterile syringes. It is important to know that sharing a needle or syringe for any use, including skin popping and injecting steroids, can put one at risk for HIV and other blood-borne infections.

## **Q. Are patients in a dentist's or doctor's office at risk of getting HIV?**

Ans. Although HIV transmission is possible in healthcare settings, it is extremely rare. Medical experts emphasise that the careful practice of infection control procedures, including universal precautions, protects patients as well as healthcare providers from possible HIV infection in medical and dental offices.

In 1990, the CDC reported on an HIV-infected dentist in Florida who apparently infected some of his patients while doing dental work. Studies of viral DNA sequences linked the dentist to six of his patients who were also HIV-infected. The CDC has as yet been unable to establish how the transmission took place.

Further studies of more than 22,000 patients of 63 healthcare providers who were HIV-infected have found no further evidence of transmission from provider to patient in healthcare settings.

## **Q. Should I be concerned about getting infected with HIV while playing sports?**

Ans. There are no documented cases of HIV being transmitted during participation in sports. The very low risk of transmission during sports participation would involve sports with direct body contact in which bleeding might be expected to occur.

If someone is bleeding, his participation in the sport should be interrupted until the wound stops bleeding and is both antiseptically cleaned and securely bandaged. There is no risk of HIV transmission through sports activities where bleeding does not occur.

## **Q. On viral load tests, what is considered a high viral load and what is considered a low one? What are these tests used for?**

Ans. Viral load tests measure how much of the HIV virus is in the bloodstream. They are very new tests and can be very expensive. Insurance companies may or may not cover the cost of the test. A result below 10,000 is considered a low result. A result over 100,000 is considered a high result. The primary use of these tests is to help determine how well a certain antiviral drug is working. If the viral load is high, your physician may consider switching you to another drug therapy. The viral load tests are best used if trends in results are compared over time. If the viral load increases over time, then the drug treatment may need to be changed. If the viral load goes down over time, antiviral treatment may be working for you. So rather than just taking one test, a series of viral load tests gives much more useful information. Of course, antiviral therapy must not be determined by this test alone. Other tests (like CD4 cell counts) are also important indicators as to how well antiviral therapy is working. It is presently not known what a test result between 10,000 and 100,000 means. That's why trends in viral load tests are of much greater value.

## **Q. Is there a vaccine for HIV?**

Ans. Most experts believe that an effective and widely available preventive vaccine for HIV may be our best long term hope to control the global pandemic.

Globally, most people who are carrying the AIDS virus live in countries with very limited budgets for healthcare. This means that in practice, there is little or no money for things like HIV testing, condoms, STI (Sexually Transmitted Infection) treatment and prevention. In settings like this, a vaccine would be very cost-effective.

Developing an effective and safe vaccine has proven to be a difficult challenge. A number of leading researchers are working on this problem, but no one knows when will they succeed.

## **Q. What is the difference between HIV-1 and HIV-2?**

Ans. Two type of HIV are currently recognised: HIV-1 and HIV-2. Worldwide, the predominant virus is HIV-1. Both type of virus are transmitted by sexual contact, through blood, and from mother to child, and they appear to cause clinically indistinguishable AIDS. However, HIV-2 is less easily transmitted, and the period between initial infection and illness is longer in the case of HIV-2.

## **Q. What are the common opportunistic infections encountered by HIV/AIDS patients?**

Ans. The common opportunistic infections encountered by HIV/AIDS patients are:

- Tuberculosis (Pulmonary and extra-pulmonary)
- Candidiasis
- Pneumocystis carinii
- Toxoplasmosis
- Cryptococcosis
- Cryptosporidial Diarrhoea
- Cytomegalo virus infections
- P. Marneffea infections (a fungus infection in North Eastern part of the country) HIV-TB.
- Testing for Pregnant Women

## **Q. Can a baby have the HIV test?**

Ans. Yes, but it will not necessarily show whether the baby is infected. This is because the test is for HIV antibodies and all babies born to mothers with HIV are born with HIV antibodies. Babies who are not infected lose their antibodies by the time they are about 18 months old. However most babies can be diagnosed as either infected or uninfected by the time they are three months old by using a different test, called a PCR test. The PCR test is more sensitive than the HIV test, and is not used in the standard HIV testing of adults. It looks for the presence of HIV itself, not antibodies.

## **Q. How does a mother transmit HIV to her unborn child?**

Ans. An HIV-infected mother can infect the child in her womb through her blood. The baby is more at risk if the mother has been recently infected or is in a later stage of AIDS. Transmission can also occur at the time of birth when the baby is exposed to the mother's blood and to some extent transmission can occur through breast milk.

## **Q. Are all pregnant women tested?**

Ans. Pregnant women are not automatically tested for HIV. In some ante-natal clinics the test is offered and in others women have to ask for it. All pregnant women can have an HIV test. A woman will never be tested without her consent. If a woman is not sure what the arrangements are at her ante-natal clinic, she can ask her doctor or midwife about an HIV test.

## **Q. Is that there is any law for the Save the HIV infected Peoples.**

Ans. Yes, there is the laws to Safeguard the Priority of Infected people the Law was pass in the all the judiciary level that if any one faces the situation of Stigma & Discrimination that he/she has the right to suit or file case against the person who does the activity with any affected people and he will be punished under the Indian law with the Penalty of Rs. 2 Lakh or Jail for the 2-3 Years.