

Human Immunodeficiency Virus/Acquired Immune Deficiency Syndrome

What is HIV/AIDS?

HIV is another name for the human immunodeficiency virus. HIV is a virus that causes a weakening of the person's immune system. AIDS is another name for acquired immune deficiency syndrome. AIDS is caused by HIV, and it is a disease in which the body's immune system breaks down.

HIV damages a person's body by destroying specific blood cells, called CD4 + T cells. These cells are crucial to helping the body fight infectious diseases.

How is HIV/AIDS spread?

You get infected with HIV in two main ways:

- having sexual activity with an infected person
- sharing needles or syringes with an infected person

Babies born to HIV-infected women may become infected. People with hemophilia or anyone who received blood transfusions between 1978 and 1985 may be at risk for an HIV infection.

While the transmission of HIV from HIV positive patients to healthcare workers is rare, proper sterilization and disinfection procedures are required. Some healthcare workers have become infected after being stuck with needles containing HIV-infected blood or, less frequently, when infected blood comes in contact with a worker's open cut or is splashed into a worker's eyes or inside their nose.

You do not become infected by casual contact with an infected person or through insect bites or stings. HIV is not spread by coughs or sneezes. You cannot get HIV from giving blood at a blood bank or other established blood collection center. You won't get HIV from items such as clothes, phones, or toilet seats. It can't be passed on by things like spoons, cups, or other objects that someone who is infected with the virus has used.

What are the symptoms of HIV/AIDS?

The only way to know if a person is infected is to be tested for HIV infection. Many people who are infected with HIV do not have any symptoms at all for 10 years or more.

The following may be warning signs of advanced HIV infection:

- 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 they are infected if they have any of these symptoms. Each of these symptoms can be related to other illnesses. The only way to determine whether a person is infected is to be tested for HIV infection.

Are certain people at risk of getting HIV/AIDS?

The following persons are known to be at increased risk for HIV infection:

- current or former injection drug users, including those who injected only once many years ago
- recipients of clotting factor concentrates made before 1987, when more advanced methods for manufacturing those products were developed
- recipients of blood transfusions or solid organ transplants before July 1992, when better testing of blood donors became available
- chronic hemodialysis patients
- persons with known exposures to HIV, such as:
 - healthcare workers after needle sticks involving HIV-positive blood
 - recipients of blood or organs from a donor who tested HIV-positive
- persons with HIV infection
- children born to HIV-positive mothers

What is the treatment for HIV/AIDS?

Although there is no cure for HIV infection, there are treatment options that can help people living with HIV experience long and productive lives. Treatments include the use of antiretroviral agents and antiretroviral therapy.

The Centers for Disease Control and Prevention has treatment guidelines available on its website at: <http://www.cdc.gov/hiv/topics/treatment/index.htm>.

How can HIV/AIDS be prevented in the healthcare setting?

Healthcare personnel are at risk for occupational exposure to bloodborne pathogens, including HIV. Exposures occur through needle sticks or cuts from other sharp instruments contaminated with an infected patient's blood or through contact of the eye, nose, mouth, or skin with a patient's blood. Important factors that influence the overall risk for occupational exposures to bloodborne pathogens include the number of infected individuals in the patient population and the type and number of blood contacts. Most exposures do not result in infection.

To prevent the transmission of HIV in the healthcare setting, healthcare workers can do a few things, such as not recapping a used needle by hand, disposing of used needles in appropriate sharps disposal containers, and using medical devices with safety features designed to prevent injuries. Using appropriate barriers such as gloves, eye and face protection, or gowns when contact with blood is expected or a possibility can prevent exposures to the eyes, nose, mouth, or skin.

If an exposure occurs, what should a healthcare worker do?

- 1) Immediately following an exposure to blood:
 - a. Wash needle sticks and cuts with soap and water.
 - b. Flush splashes to the nose, mouth, or skin with water.
 - c. Irrigate eyes with clean water, saline, or sterile irrigants.

No scientific evidence shows that using antiseptics or squeezing the wound will reduce the risk of transmission of a bloodborne pathogen.

- 2) Report the exposure to the department responsible for managing exposures. Prompt reporting is essential because, in some cases, post exposure treatment may be recommended and it should be started as soon as possible.

The Centers for Disease Control and Prevention has informational resources available regarding the prevention and control of HIV in the healthcare setting both for protecting healthcare workers and for protecting patients. These informational resources are located at:
<http://www.cdc.gov/HAI/organisms/hiv/hiv.html>.

For more information regarding HIV/AIDS, visit the following resources:

- http://www.cdc.gov/ncidod/dhqp/bp_hiv.html
- <http://www.cdc.gov/hiv/guidelines/index.html>