

# HIV Infection: The Basics

**H**uman immunodeficiency virus (HIV for short) is the virus that causes AIDS (acquired immunodeficiency syndrome). AIDS is a serious, life-threatening illness that has a variety of symptoms. HIV infection can be treated with medications to make patients feel better and to prolong life. However, there is no cure for HIV infection or AIDS. Approximately 33 million people are infected with HIV worldwide. The August 6, 2008, issue of *JAMA* is dedicated to HIV/AIDS. This Patient Page is adapted from one previously published in the August 16, 2006, *JAMA* HIV/AIDS theme issue.

## HOW HIV IS TRANSMITTED

You cannot get HIV infection from drinking from a water fountain, contact with a toilet seat, or touching an infected person. You can get HIV infection from

- Bodily fluids, including semen and vaginal secretions (through sexual contact with an infected person) and blood. There is no evidence that HIV infection is transmitted through saliva.
- Infected blood from shared drug injection needles or an accidental needlestick with a needle contaminated with infected blood.
- Infected blood and blood products through transfusion (this is rare in developed countries but still occurs in countries with inadequate blood donor testing programs). Women with HIV infection can transmit the virus to their babies during pregnancy or delivery or through their breast milk.

## SYMPTOMS OF HIV-RELATED DISEASE

Individuals with HIV infection may not feel sick at first. However, HIV infection is often accompanied by a variety of symptoms, which can vary depending on how long a person has been infected. Since HIV affects the way the immune system functions, people who are infected develop illnesses that could previously be fought off by the immune system. Symptoms tend to increase in severity and number the longer the virus is in the body if the individual remains untreated.

- Symptoms may include
- Swollen lymph nodes
  - Fever, chills, and night sweats
  - Diarrhea
  - Weight loss
  - Coughing and shortness of breath
  - Persistent tiredness
  - Skin sores
  - Blurred vision and headaches
  - Development of other infections, such as certain kinds of pneumonia

## PREVENTING HIV INFECTION

- Do not have sexual contact with any persons (opposite- or same-sex partners) unless you are sure they are free of HIV infection. This includes oral, anal, or vaginal contact of any type.
- If your partner has had prior sexual experience, even if you believe you are in a mutually monogamous relationship, to protect yourself, use a new latex condom each and every time you have any sexual contact, unless you are certain that your partner is HIV negative. However, keep in mind that condoms can break. If you are allergic to latex, polyurethane condoms are available.
- If you inject drugs, seek treatment and do not ever share needles with others. Use only a new, clean needle each time you inject.

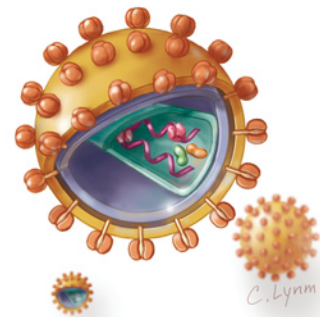
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Diagram of HIV



## FOR MORE INFORMATION

- Centers for Disease Control and Prevention  
[www.cdc.gov/hiv](http://www.cdc.gov/hiv)
- Division of Acquired Immunodeficiency Syndrome  
National Institute of Allergy and Infectious Diseases  
[www.niaid.nih.gov](http://www.niaid.nih.gov)
- World Health Organization  
[www.who.int/hiv/en](http://www.who.int/hiv/en)

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Sources: Centers for Disease Control and Prevention, World Health Organization

