HIV/AIDS

No matter how young or old you are, if you have sex or inject illegal drugs, you should be concerned about becoming infected with human immunodeficiency (IH-myoo-noh-dih-FISH-uhn-see) virus, or HIV. HIV causes acquired immunodeficiency syndrome (AIDS), a disease that weakens your body's ability to fight infections and certain cancers.

The good news is that there are ways to prevent and treat HIV/AIDS. And if you are infected, there are treatments that can help you stay healthy for a long time.

The difference between HIV and AIDS

HIV is a type of virus. When you are infected with a virus, it first invades a few cells in the body and makes many copies of itself. The new viruses then leave these cells and seek out more cells to invade. Viruses often kill the cells they invade.

HIV invades cells of the immune system, which protects the body from disease. HIV primarily invades immune cells called CD4 positive ($CD4^+$) T cells. These cells tell other immune cells when they are needed to fight a specific infection.

Usually, a healthy, uninfected person has about 1000 $CD4^+$ T cells per microliter (millionth of a liter) of blood. This is known as your CD4 count. If you become HIV-infected, your CD4 count may stay normal for several years. This is because your body is able to replace the $CD4^+$ T cells that HIV destroys, at least for a while.

Without treatment, your CD4 count will eventually drop. When it drops below 200, you have developed AIDS. You can also develop AIDS if your CD4 count is above 200 and you have certain infections or cancers.

AIDS rates among women

Women are increasingly affected by AIDS. In 1985, less than 5 percent of new AIDS cases in the United States were among women and girls aged 13 years and older. By 2005, it was nearly 27 percent.

African American and Hispanic women have higher rates of new AIDS cases. Together, these two groups represent 24 percent of all U.S. women. But in 2005 they accounted for 82 percent of new AIDS cases in women.

Older women also get AIDS. Most women with AIDS are diagnosed between the ages of 15 and 39. But in 2005, 9 percent of new AIDS cases in women occurred in those older than 45.

How HIV is spread

Having sex

The main way to get HIV is through sexual activity. This is because HIV in an infected man is present in his semen. HIV in an infected woman is present in her vaginal fluid.

- **Vaginal sex.** During vaginal sex, HIV is more likely to be spread from a man to a woman than from a woman to a man. This is because the vaginal lining is exposed to semen for a longer period of time than the opening of the man's penis is exposed to vaginal fluid.
- **Anal sex.** Anal sex with an HIV-infected man is even riskier than vaginal sex. This is because the lining in

Prevention Tips

- **Abstinence,** which means not having sex of any kind. Abstinence is the only way to be sure that you won't become HIV-infected from having sex.
- **Use condoms.** If you do have sex, you should use a male or female condom every time. For information on condoms, see the *Sexually Transmitted Infections* chapter on page 119. If you have a casual sexual encounter, you should always use a condom. If you are in a long-term relationship, you and your partner should get tested regularly for HIV and other sexually transmitted infections (STIs). (See pages 142–144 for information on HIV testing.) If you both remain disease-free and have sex with only each other, then the risk of getting HIV from sex is low. If your partner gets violent when you ask him to use a condom, see the *Violence Against Women* chapter on page 235 for tips on dealing with domestic violence.
- **Use dental dams.** These are small square pieces of latex that are sometimes used by dentists. They can also be used to help reduce your risk of getting HIV and other STIs during oral-vaginal or oral-anal sex. The partner performing oral sex holds the dam against the vulva or anus of the partner. Women who have sex with women should also use dental dams.

the rectum is thinner and more likely to be torn during sex than is the vaginal lining.

- **Oral sex.** Becoming infected with HIV through oral sex is rare but does occur.

Injection drug use

The next most common way that HIV is spread is by sharing items used in injection drug use, such as injection needles and syringes. Some drug users think that they can avoid becoming HIV-infected if they don't inject into a vein. Instead, they inject just under the skin's surface or into a muscle. These types of injections can also spread HIV.

- **Get treated for any STIs.** Having an STI, particularly herpes simplex virus, increases your chances of becoming HIV-infected during sex. If your partner has an STI in addition to HIV, that also increases your risk for HIV infection. If you have an STI, you should also get tested for HIV. (See pages 142–144 for information on HIV testing.)
- **Get treated for vaginal infections.** These also increase your chances of becoming HIV-infected during sex. For information on vaginal infections, see the *Reproductive Health* chapter on page 153.
- **Avoid inserting into your vagina objects** or sex toys that have not been cleaned with soap and water. This also applies to women who have sex with women.
- **Avoid douching.** Vaginal douching increases your risk of developing a vaginal infection.
- **Avoid using:**
  - **vaginal deodorants or vaginal cleansers**
  - **substances to dry or tighten the vagina**
  - **alcohol or drugs** when you're having sex, because you're more likely to take risks when you're drunk or under the influence of drugs

Also, you shouldn't confuse preventing pregnancy with preventing HIV infection. Taking the pill, using an intrauterine device (IUD) or diaphragm, or having your "tubes tied"—all of which are used for preventing pregnancy—will not prevent HIV infection.

Drug Use and HIV Prevention

- If you inject drugs, think about getting help from a drug treatment program.
- If you are unable to stop injecting drugs, don't share needles, syringes, and other items used to prepare drugs.
- If you are unable to stop injecting drugs and cannot get new needles and syringes, clean used ones with undiluted household bleach after each use.

Spread of HIV from mother to child

HIV can be spread from an infected mother to her fetus during pregnancy or delivery. Also, HIV from an infected mother can be spread to her baby through breastfeeding. The spread of HIV from mother to infant has been greatly reduced by:

- giving the mother anti-HIV drugs during pregnancy, labor, and delivery
- giving the newborn baby an anti-HIV drug for 6 weeks after birth
- giving the mother good prenatal care

- avoiding procedures during pregnancy or delivery that expose the baby to the mother's blood or vaginal secretions
- delivering the baby by cesarean section (in cases in which treatment with anti-HIV drugs is not able to reduce the HIV level in the mother's blood to a "safe" level for vaginal delivery)
- feeding the baby formula rather than breastfeeding

Blood transfusion

Because U.S. blood banks test donated blood for HIV, getting infected with HIV through a blood transfusion is very unlikely.

Ways that HIV is not spread

HIV is not spread through:

- kissing
- sharing of food utensils, towels and bedding, telephones, or toilet seats
- swimming pools
- hugging or handshakes
- being around someone with HIV
- biting insects such as mosquitoes or bedbugs

Get tested for HIV

By the end of 2003, more than a million people in the United States were living with HIV or AIDS. Of these people, about 25 percent were unaware that they were infected. Many new HIV infections are caused by people who are unaware that they have the virus. Experts estimate that somewhere between 54 and 70 percent of new HIV infections that occur through sexual activity happen because of having sex with someone who is un-

aware that they are HIV-infected. Getting tested is crucial to helping stop the spread of HIV.

If you have been infected with HIV, the earlier you know, the better. It's important that your infection be detected early so that you can start treatment. Taking anti-HIV drugs early in the infection may prevent you from developing AIDS. Also, once you know your HIV status, you can take the proper steps to protect your sexual partners.

Types of HIV tests

- **Antibody tests** detect the presence of anti-HIV antibodies in body fluids. Antibodies are substances produced by the immune system to try to fight germs such as HIV. Antibodies against HIV generally can be detected between 2 weeks and 3 months after infection. Most tests detect these antibodies in the blood, but some can detect them in saliva or urine.

  When you get tested for HIV, your doctor or nurse will first give you a screening test. Some of these tests provide results within 20 minutes. If you test positive with the screening test, then you will need to get a second type of test to confirm that you are infected. With this more sensitive test, you have to return after a few days or weeks to get the results.

  A home HIV antibody test, called "The Home Access HIV-1 Test System," is also available. It can be found in most drugstores. With this test, you mail a blood sample to a lab. Results are provided over the phone by a counselor. If you use the home test, you do not have to supply your name. Instead, the laboratory assigns a personal identification number to your sample. If you test positive with the home test, your counselor will give you a referral to a doctor or medical clinic where you can get a second test to confirm whether you are infected.

- **Tests for HIV genetic material.** Instead of detecting antibodies against HIV, these tests detect parts of HIV itself. As such, they measure your "viral load," which is the number of HIV copies per milliliter of blood. Tests of HIV genetic material are useful:
  - in the period between when you're infected and when your body starts producing anti-HIV antibodies
  - if the results of standard antibody tests are unclear
  - in testing for HIV in a newborn baby whose mother is infected
  - in helping your doctor see if your treatments for HIV infection are working

Preventing HIV After Exposure

Some research shows that if you have been exposed to HIV, you may be able to prevent HIV infection if you:

- start taking anti-HIV drugs within 3 days of your exposure
- continue taking the drugs for 28 days

If you think that the blood or genital fluids of someone you know or suspect to have HIV has entered your body, see a doctor as soon as possible.

How often should you get tested?

Everyone aged 13 to 64 years should be tested routinely for HIV infection. How often you should get tested depends on your HIV risks.

- You and your partner should get tested before starting a new sexual relationship.
- Pregnant women should be tested as early as possible during pregnancy.

People at High Risk

- injection drug users and their sex partners
- people who exchange sex for money or illicit drugs
- sex partners of HIV-infected persons
- people who have had any new sex partners since their most recent HIV test
- people whose sex partners have had any new sex partners since their most recent HIV test

Where can you get tested?

To find an HIV testing site near you, visit the National HIV Testing Resources Web site or call the CDC National Prevention Information Network listed in the resource section on page 151. You can also get tested at your doctor's office or local public health clinic.

Testing should be repeated in the third trimester for women known to be at high risk for HIV.

- If you are at high risk for HIV infection, you should be tested at least once a year.
- You should also get tested if you:
  - have tuberculosis (too-bur-kyuh-LOH-suhss) (TB) (a common disease among AIDS patients)
  - are being treated for an STI
  - have early symptoms of HIV infection (see "Symptoms of HIV infection and AIDS" below)

If you do not fit any of the categories listed above, talk with your doctor about how often you should get tested for HIV.

Symptoms of HIV infection and AIDS

Early symptoms of HIV infection

About half of people with HIV develop flu-like symptoms about 3 to 6 weeks after becoming infected. These symptoms include:

- fever
- feeling tired
- rash

- headache
- enlarged lymph nodes
- sore throat
- upset stomach
- night sweats
- stiff neck
- open sores in the mouth

Because these symptoms are not specific for HIV infection, doctors may sometimes make the wrong diagnosis. If you have these symptoms and have been behaving in ways that put you at risk for HIV infection, be sure to tell your doctor or get tested for HIV.

After the initial infection, you may have no symptoms. This may last a few months or it may last more than 10 years. During this time, HIV is making many copies of itself. It is also infecting and killing cells of your immune system. As your viral load goes up, your CD4 count goes down. Starting treatment early can:

- slow the spread of HIV in your body
- slow the destruction of your immune system
- delay the onset of AIDS-related infections and cancers

Opportunistic infections and cancers

If you don't get treatment for HIV infection, you will probably get one or more opportunistic infections. They are called opportunistic because the germs that cause these infections take advantage of the opportunity provided by your weakened immune system. You may also get certain types of cancer.

AIDS-Related Diseases

Disease	What it is	What you need to know
Pneumocystis pneumonia (noo-muh-SISS-tuhss noo-MOH-nyuh), or PCP	A lung disease	Symptoms include: • Shortness of breath when you are physically active • A cough that does not produce phlegm (a "dry" cough)
Candidiasis (kan-dih-DEYE-uh-suhss)	A type of fungal infection	Candidiasis causes different symptoms, depending on the site of infection. Thrush is candidiasis inside the mouth. Thrush causes white curdlike patches on the tongue, roof of the mouth, and lips. Vaginal candidiasis, or vaginal yeast infection, may cause: • Vaginal itch or soreness • A thick vaginal discharge that looks like cottage cheese • Pain or discomfort while having sex

AIDS-Related Diseases		
Disease	**What it is**	**What you need to know**
Toxoplasmosis (tok-soh-plaz-MOH-suhss)	A parasitic infection that can damage your brain	You can avoid toxoplasmosis by: • Cooking meat until it is no longer pink in the center • Avoiding contact with cat feces. Ask someone who is not HIV-infected and is not pregnant to change the litter box daily. If you must clean the box yourself, wear gloves and wash your hands well with soap and water right after changing the litter.
Cytomegalovirus retinitis (SEYE-toh-MEG-uh-loh-VEYE-ruhss ret-uhn-EYE-tuhss)	An inflammation in the back of your eye that can cause vision loss	To avoid becoming infected with cytomegalovirus: • Wash your hands frequently and thoroughly • Use condoms
Tuberculosis	A disease that most often affects the lungs	Symptoms include: • Pain in the chest • Coughing up blood or phlegm from deep inside the lungs
Cervical cancer	Caused by infection with certain types of human papillomavirus (See the *Sexually Transmitted Infections* chapter on page 119.)	HIV-infected women should get regular Pap tests to check for precancerous cells. How often they should get tested depends on test results.
Lymphomas (lim-FOH-muhz)	Cancers of the immune system	See your doctor if you have any of the following problems: • Weight loss or fever for no known reason • Night sweats • Painless, swollen lymph nodes in the neck, chest, underarm, or groin • A feeling of fullness below the ribs

Treatment for HIV/AIDS

Drugs that are used to treat HIV/AIDS are known as antiretroviral (an-teye-RE-troh-veye-ruhl) drugs. Different antiretroviral drugs block HIV at different stages of the infection.

If you are HIV-infected, your doctor may give you a combination of antiretroviral drugs. Some combinations of antiretroviral drugs are known as "highly active antiretroviral therapy," or HAART. If you take the drugs as directed, HAART can reduce your viral load. This allows your immune system to recover and protect your body from infections.

It is common practice to say that HAART may be able to suppress HIV to "undetectable" levels. This means that most HIV tests cannot detect the virus. Some people make the mistake of thinking that "undetectable" means that they no longer have HIV. But the virus is still in their body and they can still infect other people. So far, no drug combination has been able to totally get rid of the virus.

AIDS Drug Assistance Programs

AIDS Drug Assistance Programs (ADAPs) provide antiretroviral drugs to low-income people with HIV/AIDS who:

- don't have health insurance, or
- have private health insurance that doesn't pay for antiretroviral drugs

For information on the ADAP program in your state, contact your state health department.

Some people have trouble taking antiretroviral drugs as directed because of side effects such as:

- nausea and vomiting
- skin rashes
- feeling tired or weak

If you get serious side effects, your doctor may switch you to other drugs. But it's important not to stop taking the drugs on your own. If you go on and off the drugs, the HIV in your body may develop a resistance to the drugs. When that happens, the drugs may no longer be able to suppress the virus.

If you have an opportunistic infection, your doctor can give you various antimicrobial (an-teye-meye-KROH-bee-uhl) drugs. These will help your body fight the infection. Your doctor may also give you vaccines to prevent you from getting other diseases, such as hepatitis or measles.

Tips for Staying Healthy Longer

There are many things you can do to stay healthy. Here are a few:

- Follow your doctor's instructions. If your doctor prescribes medicine for you, take it just the way he or she tells you to. Taking only some of your medicine gives your HIV infection more chance to fight back.
- If you get sick from your medicine, call your doctor for advice. Do not make changes to your medicine on your own or because of advice from friends.
- If you smoke or use drugs not prescribed by your doctor, quit.
- Eat healthy foods. This will help keep you strong, keep your energy and weight up, and help your body protect itself.
- Be physically active on a regular basis.
- Get enough sleep and rest.

Psychosocial issues

For many women, being told that they are HIV-infected or have AIDS adds to the many other serious problems they have to deal with, such as:

- unemployment
- low income
- depression
- sexual assault

Dealing with HIV infection on top of all of your other problems can seem overwhelming. A good place to start is to work with a case manager. A case manager is a health professional who can help you manage your care and connect you with programs that can help with:

- medical care
- mental health treatment
- treatment for drug and alcohol abuse
- job options or learning new job skills
- housing

- food
- domestic violence shelters
- child care

To find a case manager:

- Ask your doctor or nurse.
- Call your city, county, or state health department.
- Call your local AIDS organization.

Another problem faced by people with HIV/AIDS is the stigma associated with the disease. People with HIV/AIDS are often rejected by their families, loved ones, and communities because they feel that AIDS is a shameful disease. Women with HIV/AIDS can deal with HIV stigma by:

- joining HIV/AIDS support groups
- becoming HIV/AIDS patient advocates
- becoming HIV educators or public speakers

Research on HIV/AIDS

Many researchers around the world are working to find new ways to prevent and treat HIV/AIDS. Researchers are working to develop:

- **vaccines** that could prevent or treat HIV/AIDS
- **new drugs** that:
  - target HIV at different stages at which it is reproducing itself
  - could be given to high-risk people to prevent them from becoming HIV-infected
  - treat opportunistic infections
- **topical microbicides** (meye-KROH-buh-sydz). These are creams or gels that:
  - women could apply in their vagina or rectum before having sex
  - would help protect people from HIV and other STIs
  - would be non-irritating, inexpensive, and not easily detectable by their sex partner

If you would like to help with HIV/AIDS research, consider volunteering for a clinical trial. A clinical trial is a research study in which a new drug, vaccine, or other product is tested in people after having been shown to be safe and effective in animals. AIDS clinical trials need women to volunteer, whether they test positive or negative for HIV.

For information on volunteering for an AIDS clinical trial, see the AIDS.gov and AIDSinfo contact information listed in the resource section on page 151.

Much progress has been made in treating HIV/AIDS since the disease first surfaced in the early 1980s. In fact, many people are living full lives with the help of treatment advances and support from family and friends. And with continued support from researchers and advocates around the world, a cure just may be possible. ■

One Woman's Story

When my mother was diagnosed in the late '80s, AIDS was still considered a "gay" disease. She was a single woman with two young children who didn't use drugs and wasn't a gay man, so how did she end up with this disease? My mother had no time to worry about the past. She had to figure out how to live for the future. Rather than burden others or shame herself, she kept her HIV status a secret from her family for over 10 years. She only shared this information with her doctors and partners.

My mother decided to tell her family that she was HIV positive in 1998. I couldn't believe what was happening. She is the smartest woman I know, my best friend, the wind beneath my wings. How could she have this disease that has killed millions? Was she going to die, too?

My mother said that she was afraid of what her family and friends would think of her. She didn't want to lose them. But what would they say except, "You are my sister/daughter/aunt/best friend, and I love you." Back then, the stereotypes attached to HIV were still considered truths. Even though the black community was strongly affected by this epidemic, it was still uneducated and misinformed about the disease. Who was to say that our family was any different?

I know firsthand that HIV/AIDS is not a death sentence.

In 2003, my mother started to feel more secure and was ready to talk about it. She began speaking to small groups and even did a radio interview. So when she was asked to participate in a special episode of the UPN show "Girlfriends," she proudly said yes. On May 12, 2003, the rest of our family and the world found out that my mother, Julaun Lewis, was living with HIV. During her appearance, she was beautiful, strong, and, most important, forever free of the burden of this secret. I had never been more proud of both her and my family. Like we'd hoped, everyone had the same response: "We love you and always will."

The key to stopping this disease is education and acceptance. Once we as a community educate ourselves about the disease, and our own personal status, we will open our hearts and minds and finally accept how HIV/AIDS has affected our community. I know firsthand that HIV/AIDS is not a death sentence. People with it can live long, full, and healthy lives. We need to move past stereotypes so that no one will have to keep being HIV-positive a secret.

Jeneane

Los Angeles, California

Taken from *Not in My Family: AIDS in the African-American Community* (Agate).

For More Information...

Office on Women's Health, HHS
200 Independence Ave SW, Room 712E
Washington, DC 20201
Web site: www.womenshealth.gov/hiv
Phone number: (800) 994-9662,
(888) 220-5446 TDD

AIDS.gov, HHS
200 Independence Ave SW
Washington, DC 20201
Web site: www.aids.gov

AIDSinfo, NIH
PO Box 6303
Rockville, MD 20849-6303
Web site: www.aidsinfo.nih.gov
Phone number: (800) 448-0440,
(888) 480-3739 TTY

Divisions of HIV/AIDS Prevention, CDC
1600 Clifton Rd NE
Atlanta, GA 30333
Web site: www.cdc.gov/hiv
Phone number: (800) 232-4636,
(888) 232-6348 TTY

HIV/AIDS Bureau, HRSA
5600 Fishers Ln
Rockville, MD 20857
Web site: www.hab.hrsa.gov
Phone number: (888) 275-4772

National HIV Testing Resources, CDC
PO Box 6003
Rockville, MD 20849-6003
Web site: www.hivtest.org
Phone number: (800) 458-5231

National Institute of Allergy and Infectious Diseases, NIH
6610 Rockledge Drive, MSC 6612
Bethesda, MD 20892-6612
Web site: www.niaid.nih.gov/healthscience/healthtopics/HIVAIDS
Phone number: (866) 284-4107,
(800) 877-8339

Office of Special Health Issues, FDA
5600 Fishers Ln
Rockville, MD 20857
Web site: www.fda.gov/oashi/aids/hiv.html
Phone number: (888) 463-6332

HIV and AIDS Medicines to Help You
www.fda.gov/womens/medicinecharts/hiv.html

AIDS InfoNet
PO Box 810
Arroyo Seco, NM 87514
Web site: www.aidsinfonet.org

The Body
250 W 57th St
New York, NY 10107
Web site: www.thebody.com

CDC National Prevention Information Network
PO Box 6003
Rockville, MD 20849-6003
Web site: www.cdcnpin.org
Phone number: (800) 458-5231

Project Inform
1375 Mission St
San Francisco, CA 94103-2621
Web site: www.projectinform.org
Phone number: (800) 822-7422