HIV/AIDS: The Basics

What is HIV/AIDS?

The **human immunodeficiency virus**, or **HIV**, is the virus that causes HIV infection. During HIV infection, the virus attacks and destroys the infection-fighting **CD4 cells** of the body's immune system. Loss of CD4 cells makes it difficult for the immune system to fight infections.

Acquired immunodeficiency syndrome, or **AIDS**, is the most advanced stage of HIV infection.

How is HIV transmitted?

HIV is transmitted (spread) through the blood, semen, genital fluids, or breast milk of a person infected with HIV. Having **unprotected sex** or sharing drug injection equipment (such as needles and syringes) with a person infected with HIV are the most common ways HIV is transmitted.

You can't get HIV by shaking hands, hugging, or closed-mouth kissing with a person who is infected with HIV. And you can't get HIV from contact with objects such as toilet seats, doorknobs, dishes, or drinking glasses used by a person infected with HIV.

Even though it takes many years for symptoms of HIV to develop, a person infected with HIV can spread the virus at any stage of HIV infection. Detecting HIV early after infection and starting treatment with anti-HIV medications before symptoms of HIV develop can help people with HIV live longer, healthier lives. Treatment can also reduce the risk of **transmission of HIV**.

What is the treatment for HIV?

Antiretroviral therapy (ART) is the recommended treatment for HIV infection. ART involves taking a combination (**regimen**) of three or more anti-HIV medications daily. ART prevents HIV from multiplying and destroying infection-fighting CD4 cells. This helps the body fight off life-threatening infections and cancer.

ART can't cure HIV, but anti-HIV medications help people infected with HIV live longer, healthier lives.

Can treatment prevent HIV from advancing to AIDS?

Yes. Treatment with anti-HIV medications prevents HIV from multiplying and destroying the immune system. This helps the body fight off life-threatening infections and cancers and prevents HIV from advancing to AIDS.

Terms Used in This Fact Sheet:

AIDS: Acquired immunodeficiency syndrome. AIDS is the most advanced stage of HIV infection. AIDS is diagnosed when a person infected with HIV has a CD4 count of less than 200 cells/mm^3 or has an AIDS-defining condition.

AIDS-defining condition: Any one of several illnesses that can lead to a diagnosis of AIDS in a person infected with HIV. AIDS is the most advanced stage of HIV infection.

Antiretroviral therapy (ART): The recommended treatment for HIV. ART involves taking a combination of three or more anti-HIV medications from at least two different drug classes every day to control the virus.

CD4 cells: Also called T cells or CD4+ T cells. Infection-fighting white blood cells of the immune system. HIV destroys CD4 cells, making it harder for the body to fight infections.

CD4 count: The number of CD4 cells in a sample of blood. A CD4 count measures how well the immune system is working.

HIV: Human immunodeficiency virus. HIV is a virus that attacks the immune system, putting people infected with HIV at risk for life-threatening infections and cancer. AIDS is the most advanced stage of HIV infection.

Opportunistic infection: An infection that occurs more frequently or is more severe in people with weakened immune systems (such as people with HIV or people receiving chemotherapy) than in people with healthy immune systems.

Regimen: A combination of three or more anti-HIV medications from at least two different drug classes.

Transmission of HIV: The spread of HIV from a person infected with HIV to another person through the infected person's blood, semen, genital fluids, or breast milk.

Unprotected sex: Sex without using a condom.

It takes many years, but without treatment, HIV infection can advance to AIDS. A diagnosis of AIDS requires that a person infected with HIV have either:

- A **CD4 count** of less than 200 cells/mm^3. (The CD4 count of a healthy person ranges from 500 to 1,200 cells/mm^3.)

OR

- An **AIDS-defining condition**. (AIDS-defining conditions include **opportunistic infections** and cancers that are life-threatening in a person with HIV. Having an AIDS-

defining condition signals that a person's HIV infection has advanced to AIDS.)

What illnesses are considered AIDS-defining conditions?

The Centers for Disease Control and Prevention (CDC) considers several illnesses AIDS-defining conditions. *Pneumocystis jiroveci* pneumonia, tuberculosis, and toxoplasmosis are examples of AIDS-defining conditions.

For more information:

Contact an AIDS*info* health information specialist at 1-800-448-0440 or visit http://aidsinfo.nih.gov. See your health care provider for medical advice.