HIV Facts

What is HIV?
HIV stands for Human Immunodeficiency Virus:
• Viruses are germs that only survive by living in cells.
• Coughing or sneezing can spread the viruses that cause a cold or the flu. The HIV virus is much harder to catch because it lives in the blood.
• Most viruses, like a cold or the flu, are destroyed by the body’s immune system. But HIV attacks the immune system and weakens it so that the immune system cannot fight back.
• The immune system is the body’s disease-fighting system, like a shield that protects against infection. When you have HIV, your body’s immune system is unable to fight the germs as well.

What is the difference between HIV and AIDS?
• HIV is a virus that can damage the immune system. Many people with HIV feel fine and have no symptoms at all. But as their immune system weakens, they may develop illnesses.
• These illnesses are called opportunistic infections. This is because they take the “opportunity” to cause problems when the immune system is too damaged to fight them off. Some of the names of these infections are: pneumocystis jiroveci pneumonia (PCP), thrush, esophageal candidiasis and mycobacterium avium intracellulare (MAI).
• AIDS stands for Acquired Immune Deficiency Syndrome. AIDS occurs when HIV has weakened the immune system and a person with HIV gets one of the infections or illnesses listed as an AIDS-defining condition. Not all people with HIV infection have AIDS.
• People with weakened immune systems from HIV may need to take medicines to prevent them from getting opportunistic infections.

What are some common terms used when talking about HIV?

CD4
• CD4 cells, also called T-helper cells, are a key part of the immune system. They help the other cells of the immune system fight off infections. These are the main cells that HIV attacks.
• Once HIV is inside of the CD4 cell, it can start to make copies of itself. The HIV kills the CD4 cells and makes their number go down.
• A CD4 test is done to measure the number of CD4, or T-helper, cells in the blood. The lower the CD4 count, the weaker the immune system.
**Viral Load**

Viral load is a test done to measure the amount of HIV in the blood. The higher the level of virus in the blood, the faster the CD4 cells are being destroyed by the HIV. The lower the viral load, the less harm the HIV is doing to the immune system.

**How is HIV spread?**

There are five ways that HIV can be spread (transmitted) from one person to another. HIV can be spread:

- From an infected mother to her baby during pregnancy or childbirth. This can be prevented with medication and help from a healthcare provider.
- When a baby drinks breast milk from a mother infected with HIV.
- Through contact with blood. People should not touch other people’s blood or allow others to touch their blood.
- When needles are shared. A needle used by a person infected with HIV and that has not been sterilized correctly can pass HIV to others.
- Unprotected sexual intercourse. An infected person can transmit HIV to another person through vaginal and anal intercourse when a condom is not used. The virus in high-risk fluids (such as semen, vaginal fluids and blood) can get into the bloodstream through openings in the lining of the vagina and rectum. During oral sex, HIV can enter through a break in the skin, the gums or in or around the mouth. With any type of unprotected sex (vaginal, anal or oral) it is easier for HIV to enter the bloodstream if someone already has a sexually transmitted disease. This is because these diseases often create openings in the skin that can allow HIV into the bloodstream.

**HIV is not spread by:**

- Living in the same place with a person who has HIV
- Coughing or sneezing
- Toilet seats
- Sharing cups or plates
- Hugging or touching
- Drinking fountains
- Bug bites

HIV is fragile and dies quickly when it is outside of the body. Even so, toothbrushes and razors should not be shared.

**Can HIV be treated?**

Yes. At this time, there is not a cure for HIV, but there are many medicines to control HIV. The medicines, called antiretrovirals, keep the virus from making copies of itself and killing the CD4 cells. The medicines have to be taken every day as prescribed. Many of the medicines have side effects, but if taken right, they can keep people living with HIV infection healthy for a long time.
The material for this handout was adapted from:
- avert.org
- kidshealth.org/parent/infections/std/hiv.html
- talkingwithkids.org/sex.html

Seattle Children's offers interpreter services for Deaf, hard of hearing or non-English speaking patients, family members and legal representatives free of charge. Seattle Children's will make this information available in alternate formats upon request. Call the Family Resource Center at 206-987-2201.

This handout has been reviewed by clinical staff at Seattle Children’s. However, your child’s needs are unique. Before you act or rely upon this information, please talk with your child’s healthcare provider.

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