**The Facts on HIV/AIDS**

**What is HIV infection?**

 HIV infection is caused by the human immunodeficiency virus (HIV). HIV virus destroys important cells that fight infections and diseases called CD4 cells or T cells. If a person with an HIV infection does not receive any treatment, HIV can severely weaken that person's immune system and cause the disease AIDS (acquired immune deficiency syndrome). Without treatment, most people with AIDS will die within 3 years.1

**How common is HIV infection?**

 In 2016, 36.7 million people worldwide were living with HIV and 1.8 million people had become newly infected, and of that, 1 million people died from this infection. 4 An estimated 35 million people have died from AIDS-related illnesses since the start of the epidemic.2

 In the US, 39,513 people were diagnosed with HIV in 2015. African Americans accounted for 45% of HIV diagnoses. Among people aged 13-24 who were living with HIV, an estimated 44% didn’t know.6 Gay and bisexual men accounted for 82% of HIV diagnoses among males and 67% of all diagnoses.5

HIV remains a leading cause of death worldwide and the leading cause of death among women of reproductive age globally.7

**How is HIV infection spread?**

 There are different transmission routes for HIV. It can be spread through vaginal, anal, and oral sex. Anal sex is the riskiest sexual behavior for getting and transmitting HIV for men and women. The receiving (bottom) partner) is 13 times more likely to get infected then the top partner. The inserting (top) partner is also at risk. It is possible for either partner to get HIV through anal sex from certain body fluids—blood, semen, or rectal fluids—of a person who has HIV.8

Although HIV is not transmitted by saliva, if both partners have sores or bleeding gums, blood from the HIV positive partner could get into the bloodstream of the un-infected partner through deep, open- mouth kissing.9

 HIV can also be spread from a mother to her baby, during pregnancy, birth, or breast- feeding.

Needle sharing, occupational exposure (health care and emergency workers), and contaminated transfusions are other ways the virus can be transmitted.

HIV can survive in the blood and infect a person receiving a blood transfusion. However, the risk of catching a virus from a blood transfusion is very low. Blood banks carefully screen donated blood to keep blood safe. Only about 1 and 2 million donations might carry and transmit HIV.11

**Does HIV infection cause symptoms?**

Symptoms of HIV vary, depending on the phase of infection. Newly infected people are immediately able to pass on the disease. Majority of people infected develop symptoms of a primary acute infection with a month or two after the virus enters the body (see below).12

**What are the symptoms of HIV infection?**

 There are 3 stages of HIV where symptoms may be present. Stage 1, acute primary infection, can feel flu- like symptoms within 1-4 weeks of infection, but not everyone will experience this. Stage 2, the asymptomatic stage, may not reveal any other symptoms for 10 years or so depending on age, background, and overall health. The virus is still active, infecting new cells and making copies of itself. Stage 3, symptomatic HIV infection, occurs when the immune system has been so badly damaged that it can no longer fight off serious infections and diseases. AIDS is the most severe phase of HIV infection. Common symptoms of AIDS include chills, fever, sweats, swollen lymph glands, weakness, and weight loss.

**Are there any treatments for HIV infection available?**

The earlier the diagnosis and treatment for HIV, the greater the chances are for long term health. With treatment, it’s possible to recover from AIDS related infections and diseases and bring HIV under control.13 There is no vaccine to prevent HIV/AIDS and there is no cure. Since there is no vaccine for HIV, the first line of defense is identifying HIV positive persons. Overall, approximately 16% of HIV positive people are unaware of their infection in the United States.16

Combination anti-retroviral therapy (ART) is recommended to slow the progression of the disease and to decrease the likelihood of transmission. ART is recommended for all individuals with HIV-1 infections, including those with early HIV-I infections. 17

**What complications can result from HIV infection?**

An untreated or drug resistant HIV infection can develop to AIDS. People are diagnosed with AIDS when their CD4 cell count drops below 200 cells/mm or if they develop certain opportunistic infections. A weakened immune system increases chances for opportunistic infections: fungal infections, lung infections, tuberculosis, HIV-related brain disorder, and certain types of cancer (lymphoma, sarcoma, and cervical).14  People with AIDS can have a high viral load and be very infectious. Without treatment, people with AIDS typically survive about 3 years.15

Over time, people living with HIV may begin to develop certain side effects to treatment such as accelerated aging, cancer, and cognitive impairment.14

Without HIV medicine and other available interventions, infected mothers pass HIV to their babies 25% of the time.18 Testing and treating pregnant women who are infected is vital not only to maintain the health of the woman, but to reduce perinatal transmission of HIV. Retesting in the third trimester is recommended for women at high risk for acquiring HIV infection (e.g., women who use illicit drugs, have STDs during pregnancy, have multiple sex partners during pregnancy, live in areas with high HIV prevalence, or have partners with HIV infection).19

**Can HIV infection be prevented?**

 Yes. By refraining from sexual activity until a person is in a lifelong, mutually monogamous relationship with an uninfected partner, they can prevent the sexual transmission of HIV infection.

 Pregnant women should be screened for HIV to prevent the spread of HIV infection to babies. Exposure to infected blood should also be avoided to prevent the transmission of HIV infection.

 Post-exposure medication is now offered to partners of HIV infected individuals who were exposed within the preceding 72 hours of exposure with the hope of preventing infection.

**References**

1. Centers for Disease Control and Prevention, “HIV/AIDS: About HIV/AIDS”, http://www.cdc.gov/hiv/basics/whatishiv.html Accessed March 2016
2. “HIV/AIDS.” Centers for Disease Control and Prevention, Centers for Disease Control and Prevention, 22 Sept. 2017, www.cdc.gov/hiv/statistics/overview/index.html.
3. Centers for Disease Control and Prevention, “HIV-2 Infection Surveillance---United States, 1987—2009. http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6029a3.htm
4. “Data and Statistics.” World Health Organization, World Health Organization, [www.who.int/hiv/data/en/](http://www.who.int/hiv/data/en/).
5. Content Source: Centers for Disease Control and Prevention Date last updated: June 19, 2017. “U.S. Statistics.” HIV.gov, [www.hiv.gov/hiv-basics/overview/data-and-trends/statistics](http://www.hiv.gov/hiv-basics/overview/data-and-trends/statistics).
6. “HIV/AIDS.” Centers for Disease Control and Prevention, Centers for Disease Control and Prevention, 8 Sept. 2017, [www.cdc.gov/hiv/statistics/overview/ataglance.html](http://www.cdc.gov/hiv/statistics/overview/ataglance.html).
7. “The Global HIV/AIDS Epidemic.” The Henry J. Kaiser Family Foundation, 6 Oct. 2017, [www.kff.org/global-health-policy/fact-sheet/the-global-hivaids-epidemic/](http://www.kff.org/global-health-policy/fact-sheet/the-global-hivaids-epidemic/).
8. “HIV/AIDS.” Centers for Disease Control and Prevention, Centers for Disease Control and Prevention, 27 Oct. 2016, www.cdc.gov/hiv/risk/analsex.html.
9. CDC, “HIV Transmission” http://www.cdc.gov/hiv/basics/transmission.html
10. “Occupational HIV Transmission and Prevention among Health Care Workers.” Centers for Disease Control and Prevention, Centers for Disease Control and Prevention, 7 Nov. 2016, [www.cdc.gov/hiv/workplace/healthcareworkers.html](http://www.cdc.gov/hiv/workplace/healthcareworkers.html).
11. “What Are the Risks of a Blood Transfusion?” National Heart Lung and Blood Institute, U.S. Department of Health and Human Services, 30 Jan. 2012, [www.nhlbi.nih.gov/health/health-topics/topics/bt/risks](http://www.nhlbi.nih.gov/health/health-topics/topics/bt/risks).
12. “HIV/AIDS: The Epidemic Continues.” Mayo Clinic, Mayo Foundation for Medical Education and Research, 21 July 2015, www.mayoclinic.org/diseases-conditions/hiv-aids/basics/symptoms/CON-20013732.
13. “Symptoms and Stages of HIV Infection.” AVERT, 21 Sept. 2017, [www.avert.org/about-hiv-aids/symptoms-stages](http://www.avert.org/about-hiv-aids/symptoms-stages).
14. Scaccia, Annamarya, and Robin Madell. “Facts About HIV: Life Expectancy and Long-Term Outlook.” Healthline, Healthline Media, 9 Dec. 2016, www.healthline.com/health/hiv-aids/life-expectancy#complications5
15. “HIV/AIDS.” Centers for Disease Control and Prevention, Centers for Disease Control and Prevention, 30 May 2017, [www.cdc.gov/hiv/basics/whatishiv.html](http://www.cdc.gov/hiv/basics/whatishiv.html).
16. 1.CDC, “Sexually Transmitted Diseases Treatment Guidelines, 2015,” MMWR Recommendations and Reports/Vo. 64/No.3
17. CDC AIDS info, “Clinical Guidelines Portal: Guidelines for the Use of Antiretroviral Agents in HIV-1-Infected Adults and Adolescents,” <https://aidsinfo.nih.gov/guidelines/html/1/adult-and-adolescent-arv-guidelines/0>
18. “HIV/ AIDS During Pregnancy - American Pregnancy.” American Pregnancy Association, 12 Apr. 2017, americanpregnancy.org/pregnancy-complications/hiv-aids-during-pregnancy/.
19. CDC, “Sexually Transmitted Diseases Treatment Guidelines, 2015,”, MMWR Recommendations and Reports/Vol.64/No.3
20. Content Source: Division of HIV/AIDS Prevention, and Centers for Disease Control and Prevention, and National Center for HIV/AIDS, Viral Hepatitis, Sexual Transmitted Diseases and Tuberculosis PreventionDate last updated: May 15, 2017. “Pre-Exposure Prophylaxis.” HIV.gov, 12 Sept. 2017, www.aids.gov/hiv-aids-basics/prevention/reduce-your-risk/pre-exposure-prophylaxis/index.html.