



National Institute  
on Drug Abuse

# Drug Facts

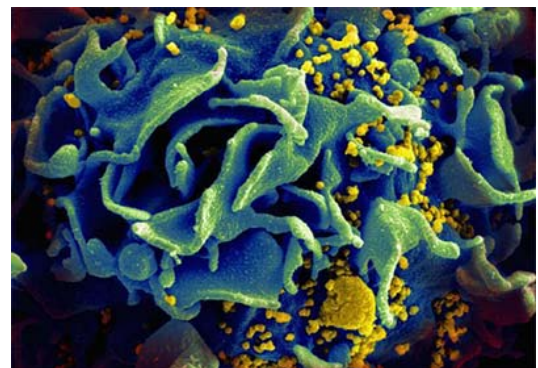
[www.drugabuse.gov](http://www.drugabuse.gov)

## Drug Use and Viral Infections (HIV, Hepatitis)

### *What's the relationship between drug use and viral infections?*

People who engage in drug use or high-risk behaviors associated with drug use put themselves at risk for contracting or transmitting viral infections such as human immunodeficiency virus (HIV), acquired immune deficiency syndrome (AIDS), or hepatitis. This is because viruses spread through blood or other body fluids. It happens primarily in two ways: (1) when people inject drugs and share needles or other drug equipment and (2) when drugs impair judgment and people have unprotected sex with an infected partner. This can happen with both men and women.

Drug use and addiction have been inseparably linked with HIV/AIDS since AIDS was first identified as a disease. According to the CDC, one in 10 HIV diagnoses occur among people who inject drugs.<sup>1</sup> In 2016, injection drug use (IDU) contributed to nearly 20 percent of recorded HIV cases among men—more than 150,000 patients. Among females, 21 percent (about 50,000) of HIV cases were attributed to IDU.<sup>2</sup> Additionally, women who become infected with a virus can pass it to their baby during pregnancy, regardless of their drug use. They can also pass HIV to the baby through breastmilk.



*HIV-infected T cell*  
Image by [NIAID](#)

### *What is HIV/AIDS?*

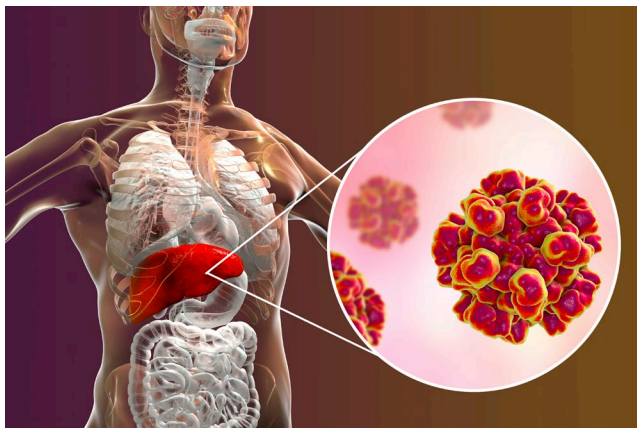
HIV stands for *human immunodeficiency virus*. This virus infects the body's immune cells, called CD4 cells (T cells), which are needed to fight infections. HIV lowers the number of these T cells in the immune system, making it harder for the body to fight off infections and disease. *Acquired immune deficiency syndrome* (AIDS), is the final stage of an HIV infection when the body is unable to fend off disease. A person with a healthy immune system has a T cell count between 500 and 1,600.

Being infected with HIV does not automatically mean that it will progress to AIDS. A patient is diagnosed with AIDS when identified with one or more infections and a T cell count of less than 200.

More than 1.1 million people in the United States live with an HIV infection, with an estimated 162,500 who are unaware of their condition.<sup>3</sup> While there are medicines that help prevent the transmission and spread of HIV and its progression to AIDS, there is no vaccine yet developed for the virus, and there is no cure.

### ***What is hepatitis?***

Hepatitis is an inflammation of the liver and can cause painful swelling and irritation, most often caused by a family of viruses: [A, B, C, D, and E](#). Each has its own way of spreading to other people and needs its own treatment. Hepatitis B virus (HBV) and hepatitis C virus



©iStock/Dr. Microbe Digital image of Hepatitis E viral infection, Stock photo ID:988500128

(HCV) can spread through sharing needles and other drug equipment. Infections can also be transmitted through risky sexual behaviors linked to drug use, though this is not common with HCV.

Hepatitis can lead to cirrhosis—scarring of the liver—resulting in loss of liver function. It can also lead to liver cancer. In fact, HBV and HCV infections are the major risk factors for liver cancer in the United States.<sup>4</sup>

There is a vaccine to prevent HBV infection and medicines to treat it. There are also [medicines to treat HCV infection](#), but no vaccine. Some people recover from infection without treatment. Other people need to take medicine for the rest of their lives and be monitored for liver failure and cancer.

### ***How does drug use affect symptoms and outcomes of a viral infection?***

Drug use can worsen the progression of HIV and its symptoms, especially in the brain. Studies show that drugs can make it easier for HIV to enter the brain and cause greater nerve cell injury and problems with thinking, learning, and memory. Drug and alcohol use can also directly damage the liver, increasing risk for chronic liver disease and cancer among those infected with HBV or HCV.

### ***How can people lessen the spread of viral infections?***

People can reduce the risk of getting or passing on a viral infection by:

- **Not using drugs.** This decreases the chance of engaging in unsafe behavior, such as sharing drug-use equipment and having unprotected sex, which can lead to these infections.

- **Never sharing drug equipment.** However, if you inject drugs, never share needles or injection equipment. Many communities have [syringe services programs \(SSPs\)](#) where you can get free sterile needles and syringes and safely dispose of used ones. They can also refer you to substance use disorder treatment services and help you get tested for HIV and hepatitis. Contact your local health department or [North American Syringe Exchange Network \(NASEN\)](#) to find an SSP. Also, some pharmacies may sell needles without a prescription. Read more about safe disposal in the U.S. Food and Drug Administration fact sheet, [Be Smart With Sharps](#).
- **Getting tested and treated for viral infection.** People who inject drugs should get tested for HIV, HBV, and HCV. Those who are infected may look and feel fine for years and may not even be aware of the infection. So, testing is needed to help prevent the spread of disease—whether or not you are among those most at risk or part of the general population. Get treatment if needed. Read more about HIV testing at the HIV.gov webpage, [HIV Test Types](#). Read more about hepatitis in the CDC's fact sheet, [Hepatitis C: Information on Testing and Diagnosis](#).
- **Practicing safe sex every time.** People can reduce their chances of transmitting or getting HIV, HBV, and HCV by using a condom every time they have sex. This is true for those who use drugs and those in the general population.
- **Pre-exposure prophylaxis (PrEP) for HIV.** PrEP is when people who are at significant risk for contracting HIV take a daily dose of HIV medications to prevent them from getting the infection. Research has shown that PrEP has been effective in reducing the risk of HIV infection in people who inject drugs.
- **Post-exposure prophylaxis (PEP) for HIV.** PEP is when people take antiretroviral medicines to prevent becoming infected after being potentially exposed to HIV. According to the CDC, PEP should be used within 72 hours after a recent possible exposure and only be used in emergency situations. If you think you've recently been exposed to HIV during sex, through sharing needles, or sexual assault, talk to your health care provider or an emergency room doctor about PEP right away. Read more about PEP in the Centers for Disease Control and Prevention's (CDC's) fact sheet, [PEP 101](#).
- **Getting vaccinated for HBV.** If you live in the same household, have sexual contact with or share needles with a person with HBV, then you should be vaccinated to prevent transmission. Read more about the vaccine on the CDC's webpage, [Hepatitis B In-short](#).
- **Getting treatment for substance use disorder.** Talk with a counselor, doctor, or other health care provider about substance use disorder treatment, including medications if you have opioid use disorder. To find a treatment center near you, check out the locator tools on [Substance Abuse and Mental Health Services Administration \(SAMHSA\)](#) or [www.hiv.gov](#), or call 1-800-662-HELP (4357). Read more about drug use disorder treatments in [DrugFacts: Treatment Approaches for Drug Addiction](#).

## Learn More

For more information about drug use disorder treatment, visit our [Treatment webpage](#).

For more information about HIV/AIDS, including testing and treatment, visit:

- [NIDA's HIV/AIDS webpage](#)
- [HIV.gov](#)
- [CDC's HIV Basics](#)

### Points to Remember

- People who engage in drug use or high-risk behaviors associated with drug use put themselves at risk for contracting or transmitting viral infections. This is because viruses spread through blood or other body fluids.
- The viral infections of greatest concern related to drug use are HIV and hepatitis.
- People can get or transmit a viral infection when they inject drugs and share needles or other drug equipment.
- Drugs also impair judgment and can cause people to make risky decisions, including having unprotected sex.
- Women who become infected with a virus can pass it to their baby during pregnancy or while breastfeeding, whether or not they use drugs.
- People can reduce their risk of getting or passing on a viral infection by not using drugs, taking PrEP if they are at high risk for infection, getting PEP if you've been exposed to HIV, getting tested for HIV and HCV, consistently practicing safer sex, getting the HBV vaccine, and getting treatment for drug use.

For more information about NIDA's AIDS Research program, visit the webpage, [AIDS Research Program \(ARP\)](#).

For more information about hepatitis, including testing and treatment, visit:

- NIDA's webpage, [Viral Hepatitis—A Very Real Consequence of Substance Use](#)
- CDC's [Viral Hepatitis webpage](#)

## References

1. Centers for Disease Control and Prevention (CDC). *HIV and Injection Drug Use*; 2017. <https://www.cdc.gov/hiv/risk/idu.html>
2. Centers for Disease Control and Prevention (CDC). HIV Surveillance Report: Diagnoses of HIV Infection in the United States and Dependent Areas, 2017 <https://www.cdc.gov/hiv/pdf/library/reports/surveillance/cdc-hiv-surveillance-report-2017-vol-29.pdf>
3. Centers for Disease Control and Prevention (CDC). *HIV in the United States: At A Glance*; 2017. <https://www.cdc.gov/hiv/statistics/overview/ataglance.html>
4. Ly KN, Xing J, Kleven RM, Jiles RB, Ward JW, Holmberg SD. The increasing burden of mortality from viral hepatitis in the United States between 1999 and 2007. *Ann Intern Med*. 2012;156(4):271-278. doi:10.7326/0003-4819-156-4-201202210-00004

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This page was last updated July 2019.