Substance Use and HIV

HOW DOES SUBSTANCE USE AFFECT HIV?

Drug and alcohol use is related to HIV in the following ways:

- Use of alcohol and recreational drugs can lead to risky behaviors that increase the chances of getting or transmitting HIV. Recreational drugs include injection and non-injection drugs such as opioids (including heroin), methamphetamine (meth), cocaine, and inhalants.
- Drug and alcohol use can harm the health of a person with HIV. Specifically, drug and alcohol use can weaken the immune system and damage the liver.

SUBSTANCE USE AND HIV TRANSMISSION

Drugs and alcohol affect the brain, making it hard to think clearly. People using drugs or alcohol may make poor decisions and take risks. Some risky behaviors can increase the risk of getting or transmitting HIV. For example, a person using drugs or alcohol may have sex without a condom. Read more about safer sex guidelines.

If recreational drugs are injected using shared needles, there is increased risk of infection with blood-borne diseases, including HIV and viral hepatitis. Read more about injection drug use guidelines.

People who use drugs should be tested regularly for HIV. The long-term symptoms of persistent drug use may be similar to those of HIV or AIDS. Be sure to tell your healthcare provider about any of the recreational drugs you use.

SUBSTANCE USE AND HIV

Drug and alcohol use can harm the health of a person with HIV in several ways.

- **Drugs and alcohol can weaken the immune system.** HIV damages the immune system, making it harder for the body to fight infections and certain cancers. Drug or alcohol use can further damage the immune system and cause HIV infection to worsen.
- **Drugs and alcohol can damage the liver and cause liver disease.** One of the main functions of the liver is to remove harmful substances (toxins) from the blood. Toxins are produced when the liver breaks down the chemicals in drugs or alcohol. Drug and alcohol use can damage the liver, making it work harder to remove toxins from the body. The buildup of toxins can weaken the body and lead to liver disease.
- **Some recreational drugs can interact with HIV medicines.** Drug interactions between HIV medicines and recreational drugs can increase the risk of dangerous side effects. For example, overdoses due to interactions between some antiretroviral medications (ARVs) and drugs such as ecstasy (MDMA) or gamma-hydroxybutyrate (GHB) have been reported. See below for more information on drug interactions.
- **Drug and alcohol use can make it hard to take HIV medicines every day.** People with HIV take a combination of ARVs (called an antiretroviral therapy (ART) regimen) every day to stay healthy. Drug or alcohol use can make it hard to focus and stick to a daily ART regimen. Skipping or missing ARVs allows HIV to multiply and damage the immune system.

DRUG INTERACTIONS

Recreational drugs will likely interact or interfere with ARVs, increasing or decreasing ARV drug levels. This can lead to ARV failure. Also, drug interactions can cause a serious, possibly fatal increase in the level of recreational drugs.

There is little research on the effects of interactions between ARVs and recreational drugs on the human body. This is because the use of recreational drugs is illegal and they cannot be provided to people with HIV, even to study the effects. The liver metabolizes most ARVs and all protease inhibitors (PIs). Recreational drugs metabolized in the liver can cause serious drug interactions.

- **Alcohol.** Excessive alcohol use may weaken immune system function and threatens the long-term benefits of ART. Alcohol can increase blood levels of abacavir (Ziagen). Chronic alcohol use affects treatment adherence by interfering with a person's ability to stick to a regular ART regimen.

- **Cocaine.** Although interactions between cocaine and ARVs are unlikely to increase cocaine toxicity, cocaine use may decrease ART effectiveness by diminishing adherence.
- **Crystal Meth, Methamphetamine (Crank, Glass, Tina).** A research study found that men who have sex with men (MSM) who use crystal meth have 5 times the risk of HIV infection as non-users. Serious and dangerous drug interactions are highly likely. When methamphetamine is used with ritonavir (Norvir), amphetamine levels can double or triple.
- **Ecstasy/MDMA.** Ecstasy uses the same liver pathway as protease inhibitors. This can cause very high levels of ecstasy in the body of people taking protease inhibitors. There is one documented case report of a death due to an interaction between ecstasy and ritonavir.
- **GHB (Xyrem, date rape drug).** GHB is primarily metabolized by the liver. There are no known interactions between GHB and ARVs. Protease inhibitors may increase GHB levels.
- **Heroin (smack, brown junk, China White).** Heroin is primarily metabolized by the liver. There are no known interactions between heroin and ARVs. Use with protease inhibitors may decrease the effect of heroin, thereby requiring more to achieve the same effect and increasing risk of overdose.
- **Ketamine (K, Special K).** Ketamine is primarily metabolized by the liver. All protease inhibitors may cause high levels of ketamine, which could lead to hepatitis. To date, there are no case reports or studies of interactions between ketamine and ARVs.
- **LSD.** The metabolism of LSD is not understood. Interactions with ARVs are possible but unknown.
- **Marijuana.** There are no known interactions between marijuana and ARVs. Interactions may be greater if marijuana is eaten rather than smoked. Use with protease inhibitors may increase the effect of marijuana.

HOW TO PROTECT YOUR HEALTH

If you use drugs:

- Don’t have sex if you’re high.
- Use a condom correctly every time you have sex. Read this fact sheet from the Centers for Disease Control and Prevention (CDC) on how to use condoms correctly.

If you drink alcohol:

- Don’t have sex if you’re drunk.
- Drink in moderation. Moderate drinking is up to 1 drink per day for women and up to 2 drinks per day for men. One drink is a 12-oz bottle of beer, a 5-oz glass of wine, or a shot of liquor.
- Visit Rethinking Drinking, a website from the National Institute on Alcohol Abuse and Alcoholism (NIAAA). This website can help you evaluate your drinking habits and consider how alcohol may be affecting your health.

If you inject drugs:

- Use only new, sterile needles and drug injection equipment (works) each time you inject.
- Never share needles and works.
- Read more on how to reduce the risk of getting or transmitting HIV from injection drug use.

THE BOTTOM LINE

Drug and alcohol use can lead to risky behaviors that increase the chances of getting or transmitting HIV. Drug and alcohol use can harm the health of people with HIV. Specifically, drug and alcohol use can weaken the immune system and damage the liver.

People with HIV take a combination of HIV medicines (called an HIV treatment regimen) every day to stay healthy. Drug or alcohol use can make it hard to focus and stick to a daily HIV regimen. Skipping HIV medicines allows HIV to multiply and damage the immune system.

Drug interactions between HIV medicines and recreational drugs can increase the risk of dangerous side effects.

You may need help to stop or cut down using alcohol or drugs, but there are many resources available to help you. To find a substance abuse treatment center near you, visit SAMHSA’s treatment locator or call 1-800-662-HELP (4357).

MORE INFORMATION

National AIDS Education and Training Resource Center: Tips for Clinicians working with alcohol users

Clinicalinfo.HIV.gov: Substance Use Disorders and HIV

National Harm Reduction Coalition: Safer Drug Use

National Harm Reduction Coalition: Find Harm Reduction Resources Near You

SAMHSA's National Helpline

HIV.gov: Alcohol and Drug Use

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