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## Cannabis, HIV, and Your Health

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#### Lea esta hoja informativa en español

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Cannabis has medicinal properties that can be beneficial to people living with HIV or those who have other conditions, such as cancer. Cannabis laws vary widely around the world, and enforcement of anticannabis legislation also varies widely. However, drug laws, including those governing cannabis, are changing rapidly everywhere. *This fact sheet is mainly about cannabis use in the US.* 

## View our companion fact sheet, <u>Cannabis</u>, <u>Health</u>, and the Law in the US, for more information on this concern

#### What is Cannabis?

*Cannabinoids* can be extracted from the cannabis plant. There are many different cannabinoids, not all of which affect the mood or mind (make you "high"). Each of them have specific effects on the body.

*Cannabis* is the name of a family of plants. Cannabis can be consumed for medicinal or recreational reasons, or used to make products like textiles. In its consumable forms it is known by many names, including marijuana, hashish, weed, and pot. The fibers of some types of cannabis (also called hemp) are used to make fabrics, bags, paper, oils, and other items.

There are two main types of cannabis strains used for medicinal and recreational purposes: *cannabis sativa* and *cannabis indica*. The components of these strains can be used to create different effects in the body, and the strains are often blended as plants to make hybrids. *Cannabinoids*, which affect the body's central nervous system and immune system, can be extracted from the cannabis plant. There are many different cannabinoids, not all of which affect the mood or mind (make you "high"). Each of them have specific effects on the body. The effect is based on the concentration of the cannabinoid. Tetrahydrocannabinol (technically delta-9-THC), or THC, is one of the main cannabinoids.

Cannabis plants containing higher levels of THC are prepared from their dried flowers or leaves. Cannabis sativa has a dominant THC concentration and leaves a euphoric or "high" feeling. Cannabidiol, or CBD, is another cannabinoid. Cannabis indica also contains THC, but has a higher CBD concentration and leads to a more relaxed or "stoned" effect. CBD alone does not cause a high or stoned effect on the brain. Products made with CBD, such as hemp oil, can reduce pain or anxiety and improve sleep, without inducing a high. By contrast, products that are made with THC, which can include food, cigarettes ("joints"), or cigars ("blunts"), cause a high. There is still much to learn about cannabinoids – and the human body's *endocannabinoid system*, with which cannabinoids interact.

Using plant-based cannabis allows for many additional health benefits. This is because other compounds in the plant work together with cannabinoids to produce benefits that a single compound could not achieve on its own.

Two synthetic (human-made) versions of THC, dronabinol (Marinol) and nabilone (Cesamet), have been approved by the US Food and Drug Administration (FDA) to treat nausea and vomiting in people who are undergoing chemotherapy for cancer treatment. There is also an FDA-approved version of

CBD, Epidiolex, used to treat seizures. However, using plant-based cannabis allows for many additional health benefits. This is because other compounds in the plant work together with cannabinoids to produce benefits that a single compound (like CBD or THC) in a synthetic form could not achieve on its own. *Terpenes* are compounds that give a flower its aroma and can benefit health. Cannabis has a high concentration of terpenes. When terpenes and cannabinoids work together to create a wider variety of health effects, this is called the *entourage effect*. Make sure to talk with your healthcare provider if you are considering cannabis.

#### Medicinal Benefits of Cannabis

Cannabis can lower inflammation. Additionally, THC can increase <u>appetite</u> and reduce nausea. CBD has an antioxidant effect and is also known to be effective for managing anxiety-based challenges such as panic attacks or obsessive-compulsive disorder. There are studies showing that forms of cannabis have worked to relieve:

- · Anxiety symptoms in individuals with social anxiety disorders
- Chronic pain
- Depression
- Fatigue
- Increased appetite and decreased weight loss associated with HIV/AIDS
- Insomnia
- Multiple sclerosis (MS)-related spasticity symptoms
- Nausea and vomiting due to chemotherapy
- Post-traumatic stress disorder symptoms
- Tourette syndrome symptoms

However, cannabis can also cause or worsen mental health disorders, including anxiety and paranoia (thinking one is threatened even if there is no evidence for this), memory and attention issues, and psychosis (loss of contact with reality).

There is not yet any clinical evidence that cannabis improves <u>menstrual</u> (period) pain; however, there is significant anecdotal evidence (stories about individual experiences) that people have experienced relief using cannabis in this way. More research is needed to better understand a range of beneficial health effects of cannabis, as well as potential drawbacks to its use.

Click above to view or download this fact sheet as a PDF slide presentation

#### Why Do People Living with HIV Use Cannabis?

Cannabis can ease pain and anxiety, reduce inflammation, and improve appetite. <u>Peripheral</u> <u>neuropathy</u> (pain or tingling in hands and feet) is caused by damage to the nervous system. A small study that took place when early HIV medications linked to neuropathy were common showed that smoking cannabis could relieve neuropathic pain. Smoking may provide relief more quickly than other methods of consumption. However, <u>smoking itself</u> damages your body in various ways.

The anti-inflammatory properties of cannabis can help address the ongoing low-level inflammation in the body that is caused by HIV. One study found that using cannabis for this purpose also reduces cognitive impairment (problems with thinking) in people living with HIV. However, smoking tobacco itself can *cause* inflammation. Another study has found that tobacco use paired with cannabis use cancels out marijuana's anti-inflammatory benefits.

People on treatment for cancer have used cannabis for some time to reduce the nausea (feeling sick to the stomach) that comes from chemotherapy. Nausea was also a common side effect of earlier HIV

medications. Even now, when people start a new HIV drug, they often have gut problems until their bodies get used to the medication. Cannabis can help increase your appetite to take medications requiring food intake, or to support eating to increase weight. For more information on nausea, diarrhea, and similar issues, see our fact sheet on <u>Caring for Your Gut</u>.

It is worth noting that, recently, a researcher at the University of North Carolina received US government funding to study the effects of cannabis on the reservoir of HIV that stays in people's bodies even when they are on effective HIV treatment. This research could provide important insights that could be helpful as researchers seek to <u>develop a cure for HIV</u>.

#### **Cannabis and HIV Treatment**

Make sure your provider knows about everything you are taking – including cannabis, whether or not it is legal in your state.

Cannabis interacts with some antiretroviral drugs. For example, it may reduce the amount of Reyataz (atazanavir) that is available in your body below the levels needed to keep HIV in check. Other HIV drugs that may significantly interact with cannabis include Sustiva (efavirenz) and Intelence (etravirine). Dosages of these drugs may need to be adjusted if you use cannabis.

The following HIV drugs are known to have weak interactions with cannabis. No special precautions are necessary, but it is important that your provider knows about your cannabis use to watch for potential problems:

- Genvoya (elvitegravir/cobicistat/emtricitabine/tenofovir alafenamide)
- Kaletra (lopinavir/ritonavir)
- Norvir (ritonavir)
- Prezcobix (darunavir/cobicistat)
- Prezista (darunavir) boosted with Norvir
- Stribild (elvitegravir/cobicistat/emtricitabine/tenofovir-DF)
- Sunlenca (lenacapavir)
- Symtuza (darunavir/cobicistat/emtricitabine/tenofovir alafenamide)

This section does not list all possible interactions, and more interactions may be discovered in the future. A very small clinical trial is evaluating the effect of cannabis on modern HIV drugs. Its results are expected in 2025. For more information on interactions between various drugs, see our <u>Drug</u> <u>Interactions</u> fact sheet.

Make sure your provider knows about everything you are taking – including cannabis, whether or not it is legal in your state. Even if it is prohibited, medical confidentiality laws protect you from being reported to law enforcement when you share this information with your doctor.

#### What's the Difference Between Medical and Recreational Marijuana?

Medical and recreational (for adult use) cannabis products are the same. Getting a "medical marijuana card" by a healthcare provider allows a person to get cannabis for medicinal purposes. The card has benefits based on the state's law. In some states it allows the legal purchase of cannabis. In legalized states, there may be a lower cost to purchasing the cannabis.

Regulations on cannabis, like those for other "controlled substances" (such as alcohol or tobacco), are written at the state level. Different states therefore have different requirements for dispensing or accessing medical marijuana. States also differ on whether adult-use (non-medical) marijuana is legal to possess or purchase. For more information, see our fact sheet on <u>cannabis and the law</u>.

Health conditions that qualify an individual to receive a medical marijuana card also vary by state but often include:

- Amyotrophic lateral sclerosis (ALS), also known as Lou Gehrig's disease
- Anorexia
- Cancer
- Crohn's disease
- Epilepsy and seizures
- Fibromyalgia
- Glaucoma
- HIV
- Migraines
- MS and muscle spasms
- Pain (chronic)
- Parkinson's disease

In states where it is legal, adult-use marijuana can be purchased by any adult – although there are restrictions, such as the amount, need for identification, and licensing requirements for vendors.

#### Methods of Consuming Cannabis

Smoking cannabis may provide relief more quickly than other methods of consumption. However, smoking itself damages your body in various ways.

There are various ways to take cannabis. This includes inhalation, applying to skin, and orally through a tincture, drink, or food.

#### Inhalation/Smoking

Inhalation through cannabis flower cigarettes or vaping oil causes a rapid effect. Inhaling smoke can harm your lungs, heart, and other body systems, even if you are using marijuana and not tobacco. One study found that smoking cannabis increased the risk for lung infections among men living with HIV who smoked cannabis, but not among HIV-negative men. For more information on smoking, see our <u>Smoking and Tobacco Use</u> fact sheet.

#### **Eating Edibles**

One way to use cannabis without smoking is to eat it. THC extract or plant can be cooked into candy, cookies, brownies and other foods – also called "edibles" – and are now available in many places. The potency of these products can vary widely. Some may only have a very small amount of THC, while others can impair your ability to function for a long time. Be careful with homemade versions sold outside trusted channels – without testing and labeling, there is a chance they could be laced with other substances, and it will be unclear how strong or weak the product is (potency). Eating cannabis can be powerful, so it is recommended to start with small doses of no more than 2.5 to 5 milligrams and allow one to two hours for the edible to take effect before eating more. Eating too much can cause nausea and vomiting. Make sure you trust the source of any weed you buy – whether for smoking, as an edible, or any method of consumption.

As with any substance – whether or not it has been prescribed to you or is even decriminalized/legalized in your location – make sure children and pets cannot reach your cannabis. This is especially important for edibles, since a "magic" brownie or candies containing THC look exactly the same as regular sweets. A child who wants a treat would not be able to tell – or taste – the difference. The amount of THC in a "magic" brownie may be just right for calming your anxiety but may cause an overdose in a child. Many states are creating penalties for products and packaging that are

made in a way that can attract children (e.g., prohibiting certain shapes or cartoons for branding).

Make sure children and pets cannot reach your cannabis. This is especially important for edibles, since a 'magic' brownie or candies containing THC look exactly the same as regular sweets.

#### Applying to Skin

Cannabis also can come in a topical application such as a gel, cream, lotion or skin butter, or oil. This method is absorbed through the skin, does not get into the bloodstream, and will not cause a high. Apply cannabis-infused topical creams to the area with pain. This method is useful for pain relief of arthritis, peripheral neuropathy, muscle soreness, swelling or injury, skin cancer, eczema, or psoriasis, as well as skin care. Topicals with high THC can decrease the production of sebum, helping with acne. Topical products containing the terpenes pinene and beta-caryophyllene can have anti-inflammatory and antibacterial properties.

### **Taking Care of Yourself**

Cannabis can be helpful for some issues experienced by people living with HIV, but its legality varies by location. It can also interact with HIV drugs and other medications. Smoking itself – whether weed or tobacco – has negative health consequences. Consider your overall health and the potential effects of cannabis before consuming cannabis products.

Special thanks to Chelsea Higgs Wise, MSW (co-founder and executive director, Marijuana Justice) and Natalie L. Wilson, PhD, DNP, MPH (assistant professor, UCSF School of Nursing - Community Health Systems) for their reviews of this fact sheet.

#### **Additional Resources**

Select the links below for additional material related to cannabis, HIV, and health

- <u>Cannabis and Cannabinoids (PDQ®)–Patient Version (US National Cancer Institute)</u>
- What's the Difference Between Medical Marijuana and Recreational Weed? (GoodRx ...
- CBD Products Are Everywhere. But Do They Work? (Harvard Medical School)
- For People with HIV, Cannabis Use Linked to Lower Rates of Cognitive Impairment...
- Cannabis (Marijuana) and Cannabinoids: What You Need To Know (US National Cente...
- Where Is Marijuana Legal? A Guide to Marijuana Legalization (US News and World ...
- State Policy (Marijuana Policy Project)
- How Cannabis Is Helping People Living with HIV (AIDS Foundation of Chicago)



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