Prevention Action Alliance

A Prevention Action Alliance Fact Sheet

Today's Marijuana Why It Isn't What It Used to Be



Fifty, 40, even 25 years ago, marijuana was different than it is today. Back then, its tetrahydrocannabinol (THC) content was much lower, ranging from 4-10%.¹ THC is the main psychoactive compound that activates certain brain molecules, disrupting some mental and physical functions. But that was then and this is now.

Timeline of Changes²

Back in the 1970s, most recreational marijuana was illegally imported from Colombia. The time it took from farm-to-consumer was rather lengthy, which meant it had a big impact on the quality of usable product. With its mix of leaves, stems, flowers, and other plant pieces, not much of the marijuana brought into the U.S. then was what is found in most of today's dispensaries: the highly potent, THC-rich part of the cannabis plant known as sinsemilla.

The 1980s brought the advent of hydroponic growing. With it came fresher, more potent, marijuana to home growers. In the 2000s, the combination of technological advances and breeding techniques amplified marijuana's potency potential even more. Sinsemilla was distinguishing itself as the best source of cannabinoids in the plant, while research showed that sinsemilla had pretty much become the de facto variety.

Potency Percentages

This evolutionary timeline leads to today's marijuana, which is much higher in THC. In fact, based on Drug Enforcement Agency seizures of street drugs, levels of THC have jumped from 4% in 1995 to nearly 16% in 2018.³ And, thanks to breeding techniques, some strains are even higher in THC – as much as 20-30% – with little to no concentrations of cannabidiol or CBD, the component that shows the most promise for therapeutic benefit.⁴

A Complex Plant

- Marijuana comes from three species of cannabis.
- It has an estimated 2,000 varieties.
- Sinsemilla is the most common strain.
- Sinsemilla has an especially high concentration of THC.⁵
- THC is the primary active ingredient, and 1 of 100 cannabinoid compounds.
- Cannabinoids interact with brain receptors affect the central nervous system.
- CBD, the second most prevalent active ingredient, is not psychoactive.

Consequences of Higher THC

According to the U.S. Surgeon General, with rising levels of THC come rising levels of concern about its consequences, including: physical dependence, addiction, anxiety, paranoia, psychosis, unintentional overdose, accidental ingestion, and even cannabinoid hyperemesis syndrome. This cycle of nausea and vomiting is most notably prevalent in chronic users of marijuana with high THC content.

Effects of Marijuana

Though marijuana is federally illegal with no currently accepted medical use, and a high potential for abuse,⁶ the use of marijuana is on the rise among all adult age groups, with those ages 18-25 having the highest use.⁷

The active ingredients in marijuana, including THC, are known to product a sense of well-being, relaxation, and altered sensory perception, as well as short-term effects, such as inability to focus, restlessness, and coordination problems.⁸

Marijuana is fat soluble, which means it has a longer half-life than, say, alcohol. Depending on age, body mass, use, form, and other factors, the drug can stay in a person's system several days and up to four weeks. Plus, the higher the THC, the longer it takes the for body to eliminate it.

Contaminant Concerns

During testing, researchers also found fungi, bacteria, and other contaminants, including toxins, pesticides, and heavy metals.⁹ Street marijuana has been found to be laced with Fentanyl, a powerful opioid that's very dangerous when misused. Cross-breeding, soil conditions, and grower handling may be contributing factors modern-day "dirty" marijuana.

Regardless, these contaminants are potentially harmful, especially to people with allergies, asthma, and compromised immune systems.¹⁰ Though potential federal legislation and regulations may be forthcoming, until then, states are determining their own testing standards. For updates about medical marijuana in Ohio, visit: medicalmarijuana.ohio.gov.

About This Campaign

Because much of the public conversation surrounding marijuana has been based on anecdotes rather than science, Prevention Action Alliance and the Ohio Department of Mental Health and Addiction Services created this campaign to help people better understand the facts about marijuana and its effects.

If you found this article helpful, we encourage you to share it with others. You can also find other fact sheets about marijuana at: preventionactionalliance.org/ marijuana

If you have concerns about your own use of marijuana or a loved one's, and wish to seek help, go to: findtreatment.samhsa.gov/

Contact Us

For more information about today's marijuana, please contact us at: Prevention Action Alliance (614) 540-9985 preventionactionalliance.org

About Us

Prevention Action Alliance

Prevention Action Alliance is a 501(c)3 nonprofit located in Columbus, Ohio. We're dedicated to leading healthy communities in the prevention of substance misuse and the promotion of mental health wellness. Learn more at preventionactionalliance.org.



The mission of the Ohio Department of Mental Health and Addiction Services (OhioMHAS) is to provide statewide leadership on the topics of mental health and addiction prevention, treatment, and recovery. Learn more about OhioMHAS at mha.ohio.gov.

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