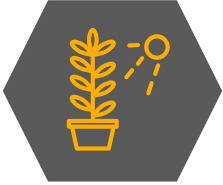


Things to Consider About Cannabis-Based Treatments



The Importance of Growing Conditions¹⁻³

Cannabis plants absorb chemicals from the soil. Growing plants outdoors may seem natural. However, research has shown that ground soil can contain toxins such as pesticides, heavy metals, or fertilizers. Additionally, sunlight and rainfall affects the expression of cannabinoids.



The Production Process⁴

Testing standards and labeling vary greatly from state to state and among manufacturers. The growing conditions of the plants and the way cannabinoids are extracted can have a big impact on the ingredients, consistency, and quality of products.



Product Ingredients⁵⁻⁹

Many non-FDA-approved cannabis-based products are extracts or mixtures of different phytocannabinoids and other plant constituents. Due to varying product regulation, the actual content of THC and/or CBD may be uncertain or unreliable and products may contain unwanted substances. The dosage, safety, and efficacy is not specified by the FDA for these products.



Regulations Standards¹⁰

Manufacturers who adhere to current good manufacturing practices are looking to assure the identify, strength, quality, and purity of their products.



Clinical Trial Results¹¹

Every patient's safety is important. An FDA-approved product means that the medication has been studied in large patient populations and is being monitored for long-term safety. Data from these controlled clinical trials help evaluate safety, effectiveness, and appropriate dosing.



Consistency From Batch to Batch¹²

For medical treatment, it's important to keep a consistent dose from batch to batch. The product should be tracked from seed-to-sale and validated by a regulatory authority, which includes labeling with a batch number, expiration date, and/or serial number to ensure identification of the product and its contents.

References:

1. Husain R et al. *PLoS One*. 2019; 14(8):e0221570. 2. Jameson et al. *Env Health Persp*. 2022; 130(9). 3. Micalizzi G, Vento F, Alibrando F, et al. *J Chromatogr*. 2021;1637:1-16. 4. Sarma ND et al. *J Nat Prod*. 2020;83(4):1334-1351. 5. Sazegar P. 2021;104(6):598-608. 6. Spindle TR et al. *JAMA Netw Open*. 2022;5(7):e2223019. 7. Gidal BE et al. *Front Pharmacol*. 2024;15:1335441. 8. Miller OS et al. *Epilepsy Behav*. 2022;127:108514. 9. US Food and Drug Administration. What is the FDA Doing to Protect Consumers from Cannabidiol (CBD) in Foods. Updated Nov 21, 2022. Accessed Sep 12, 2024. <https://www.fda.gov/food/conversations-experts-food-topics/what-fda-doing-protect-consumers-cannabidiol-cbd-foods>. 10. US Food and Drug Administration. Facts About the Current Good Manufacturing Practices (CGMPs). Updated Jun 1, 2021. Accessed Sep 9, 2024. <https://www.fda.gov/drugs/pharmaceutical-quality-resources/facts-about-current-good-manufacturing-practices-cgmps>. 11. US Food and Drug Administration. The Drug Development Process. Updated Jan 4, 2018. Accessed Sep 9, 2024. <https://www.fda.gov/patients/learn-about-drug-and-device-approvals/drug-development-process>. 12. US Food and Drug Administration. Q7 Good Manufacturing Practice Guidance for Active Pharmaceutical Ingredients Guidance for Industry. 2016. Accessed Dec 3, 2021. <https://www.fda.gov/media/71518/download>

Thinking about a cannabinoid or cannabis-based treatment?

Here are some questions you may want to discuss with your healthcare provider

- Are current medications working?
- Are current medications causing side effects?
- Is a cannabis-based product an option?
- What is the difference between CBD (cannabidiol) and THC (tetrahydrocannabinol)?
- Do you know which cannabinoids are in the product you are considering?
☐ CBD ☐ Other
☐ THC ☐ I don't know
- Is the cannabinoid approved by the FDA?
- Are cannabinoids appropriate for my medical condition? If so, are there clinical data to support how to use cannabinoid products for this condition?
- Has the product been tested for safety and effectiveness at this dose?

- Do you know the potential drug interactions and side effects of cannabinoids or cannabis-based products?

Scan QR code for information on drug interactions and potential side effects



- Who manufactures this product?

- ☐ Pharmaceutical Company
- ☐ Dispensary
- ☐ Private Grower / Self Grown
- ☐ Unknown

- Will insurance cover this treatment?

- Has the product been tested by a properly certified laboratory to ensure it is free from the following contaminants?

- ☐ Mold
- ☐ Environmental toxins
- ☐ Heavy metals
- ☐ Residual solvents
- ☐ Pesticides