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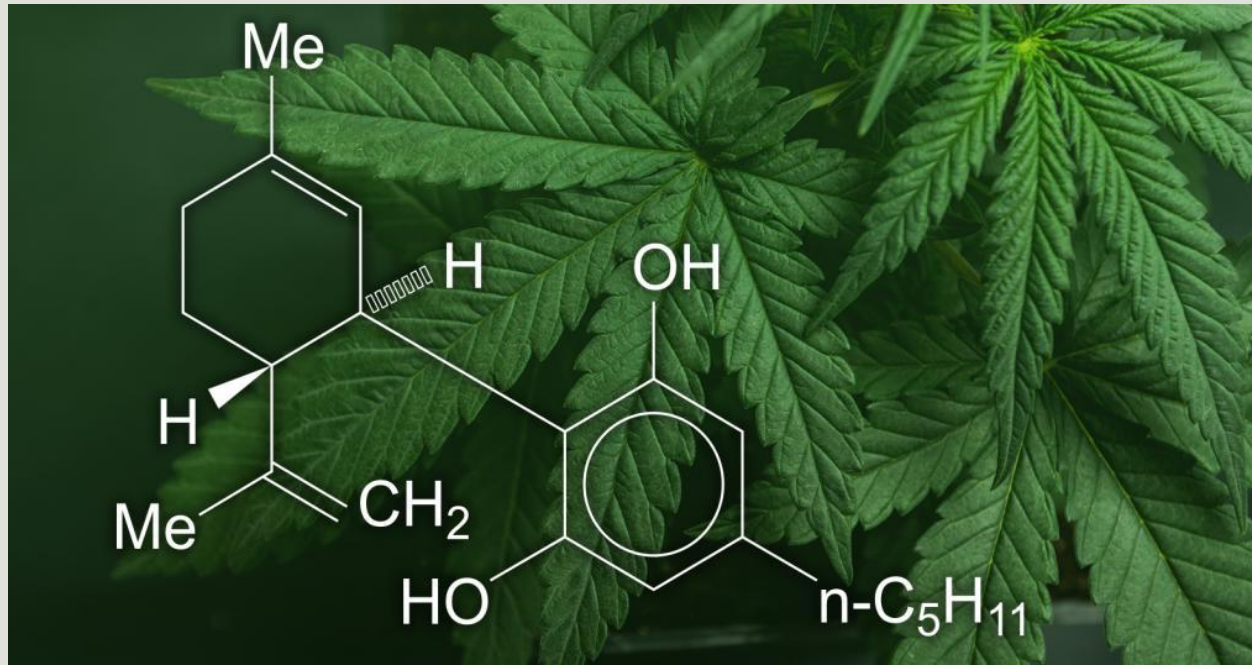


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CBD: A Resource for Patients

RYAN HARNED

LARNER COLLEGE OF MEDICINE, UNIVERSITY OF VERMONT
FAMILY MEDICINE CLERKSHIP, AUGUST-SEPTEMBER 2019

Problem

In my first 10 days working at Hinesburg Family Practice:

- 11 patients mentioned unprompted that they were using CBD products
- 2 patients asked if they ought to try using it

Cannabidiol (CBD) products are promoted as a cure-all supplement for many ailments

Many people use it, and it is widely available both in stores and online

Hemp is replacing corn cultivation in many areas of Vermont

Little objective information on CBD and other hemp products is available to patients

Public Health Considerations

How many patients are using it? What types of patients are most likely to use it?

What are the risks? What should patients know? What medication interactions exist?

Are a significant number of patients putting themselves at risk by using a widely promoted yet largely unregulated product?

Community Perspectives

Dr. JIM ULAGER *Family Physician*

“A major challenge with both CBD and marijuana legalization is that because it remains federally illegal, it really limits the ability to do research on their effects on patients.”

“Some patients with chronic illnesses who have failed other treatments have reported that CBD really helps them. The benefits may outweigh the risks in these adults, but I’m much more cautious about CBD use in patients under 25 years old. We don’t know what effects it can have on people whose brains, especially the frontal cortex, are still developing.”

LAUREN BODE, PharmD *Clinical Pharmacist*

“I find my mind somewhat split on CBD in general. The level of evidence is in no way good enough for me to recommend it over other evidence-based therapies. But the reality is that conventional therapies for depression, anxiety, and pain fail a lot of people. I have become more accepting of CBD as a potential adjunct in that case.”

“That said, I do also recommend caution to patients. Use a reputable supplier, ask to see testing information, and start at a low dose and increase slowly. It is a chemical substance so it should be treated with the same caution as any other medication.”

“Confounding factors in practice, of course, are potential variations in the CBD product used given that the majority of these products are not tightly regulated (with the exception of Epidiolex).”

Regarding potential drug interactions between topical CBD (creams, lotions, etc.) and medications: “I would not expect an interaction with topical CBD as absorption is thought to be fairly limited.”

Methodology

Develop an educational handout for patients, incorporating:

- Current body of research on what CBD does/doesn't work for
- Laws regulating production, sale, advertising
- Safety concerns
 - Purity, content
 - Medication interactions

Considerations:

- Written in language that is accessible to patients
- Avoid appearing to promote CBD

Response

Patients: Overwhelmingly positive

- Admitted they didn't know how best to research CBD on their own
- Pleased that a doctors' office could provide an objective resource they could trust

Providers: Positive

- Glad to have a handout they can provide
- Served as a good reference for them as well

Limitations & Effectiveness Assessment

Many unknowns exist:

- We still don't know how many patients use CBD, and who those patients are
 - It was difficult to identify which patients should be provided the handout -
 - Are certain types of patients are more likely to use it - younger age? Patients with musculoskeletal pain?
- Research hasn't revealed which patients should be targeted for CBD education
 - Who is at high risk for medication interactions?
 - Are any patients at risk for potential disease complications?

The body of CBD research is constantly changing, therefore the handout will require periodic updating

Future Recommendations

Proposal for future research: Incorporate two brief surveys

Initial brief survey when providing the handouts

- For the patient to fill out: assess whether they use CBD already, how likely they are to start using CBD products, whether they feel they have access to quality research/informational materials
- For the provider to fill out: Note what major medical conditions the patient has, what medications they take, basic demographic data (age, gender, etc., without providing identifiers)

Second survey at follow-up visit

- Inquire whether the patient chose to use CBD if they hadn't already, whether current users changed their habits after receiving the handout, and whether they thought the handout affected their use

Research goals:

- Identify patients most likely to use CBD – target those cohorts for education
- Assess whether handout affected their decision to use CBD – want to avoid unintentional promotion

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Handout

Front & Back Covers

Further Reading:

US FDA:

What You Need to Know (And What We're Working to Find Out) About Products Containing Cannabis or Cannabis-derived Compounds, Including CBD

<https://www.fda.gov/consumers/consumer-updates/what-you-need-know-and-what-were-working-find-out-about-products-containing-cannabis-or-cannabis>

FDA Regulation of Cannabis and Cannabis-Derived Products: Questions and Answers

<https://www.fda.gov/news-events/public-health-focus/fda-regulation-cannabis-and-cannabis-derived-products-questions-and-answers>

Project CBD:

<https://www.projectcbd.org>

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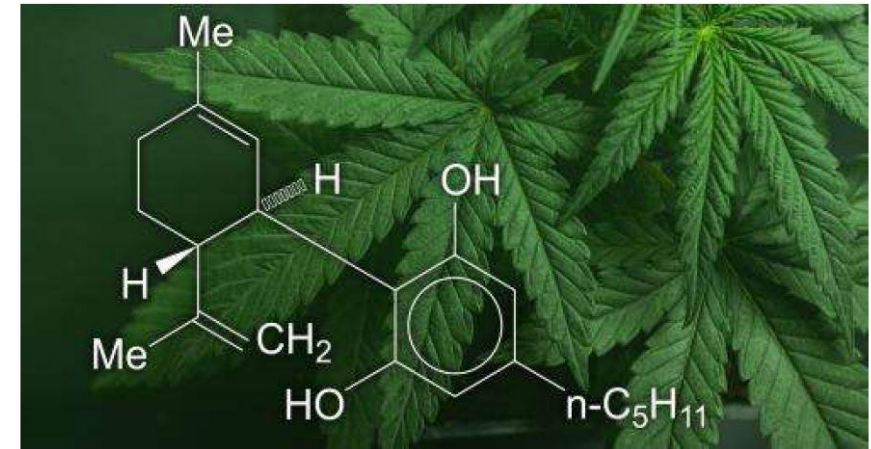
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CBD: A Resource for Patients

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What is Cannabidiol (CBD)?

It is a compound produced by the *Cannabis* species of plants, which include marijuana and hemp. Like tetrahydrocannabinol (THC) it is a member of the Cannabinoid family of compounds, but unlike THC it does not have the psychoactive effects that cause a “high.” Cannabinoids interact with the body’s endocannabinoid system (ECS). This system is poorly understood, but problems with its regulation may contribute to various diseases including disorders in metabolism, immune system dysfunction, chronic inflammation, mood disorders, substance use disorders, and chronic pain.

Handout

Inside Contents

Current Research on CBD

The amount and quality of research on CBD varies for different medical conditions. Some common conditions that may benefit from CBD supplementation are listed below, along with the strength of evidence supporting its use:

Strong Evidence	Moderate Evidence	Weak Evidence	No Evidence
Epilepsy (Dravet Syndrome, Lennox-Gastaut Syndrome)	Acne Chemotherapy side effects Chronic pain Nicotine Addiction Opioid Addiction Schizophrenia Spasticity	Alzheimer's Disease Anxiety Autism Cancer Crohn's Disease Depression Hypertension Migraines Parkinson's Disease Tourette Syndrome Ulcerative Colitis	Sleep

Legality and Availability

It is legal to grow, possess, and sell hemp, though processing it to extract the CBD for human consumption remains a legal grey area. Vermont classifies hemp and CBD products as legal to grow, sell, possess, and consume, as long as the THC content is less than 0.3%. Federal law prohibits growing, possessing, or consuming THC or marijuana, but Vermont permits adults over 21 to possess and grow small amounts of marijuana, but it remains illegal to sell. The Food and Drug Administration (FDA) approved Epidiolex (prescription CBD) for the treatment of two rare childhood seizure disorders. Epidiolex is not FDA-approved as a treatment for any other medical condition.

Furthermore, it is illegal for CBD products to be advertised as a treatment or cure for any ailments. Avoid such products if you see them for sale.

Safety Considerations

Purity Standards

Because CBD products are not tightly regulated by the FDA or DEA, they often do not contain the amount of CBD they advertise and can contain harmful chemicals from unsafe cultivation or processing practices. If you decide to use CBD, check that the manufacturing quality is verified with either an FDA Current Good Manufacturing Practices (CGMP) certification or a National Science Foundation International (NSFI) certification – CGMP or NSFI logos will appear on the product label. Also check that advertised the CBD content has been verified by at least one independent testing lab.

Drug Interactions

CBD is metabolized in your body by the same enzymes that metabolize many prescription and over-the-counter medications and as a result it may increase or decrease the effectiveness of your medications. The table on the right includes some common drugs that may be affected *but it is not an exhaustive list*.

Dosing

Due to a lack of research, proper dosing is unclear. If you choose to use CBD, it's recommended that you start with 5-10mg per day and increase slowly if symptoms remain and you don't have side effects. One long-term study showed doses of 300mg per day may be safe, but more research is needed.

Side Effects

Common side effects include sleepiness, decreased appetite, diarrhea. It may also cause liver injury in patients with liver problems.

So should I take it?

That decision should be between you and your doctor. If you choose to use it, you should ensure that:

1. You purchase products manufactured with certification by the FDA CGMP or NSFI
2. CBD content is tested and reported by independent testing labs
3. Your doctor reviews all of your medications

Potential medication interactions

Anesthetics
Antidepressants
- SNRIs
- SSRIs
- TCAs
Antipsychotics
Caffeine
Clobazam
Cyclosporin
Diltiazem
Indinavir
Ketamine
Melatonin
Phenytoin
Opiates/Opioids
Tacrolimus
Valproate