



one hemp-derived medication: Epidiolex, a CBD isolate for the treatment of two rare forms of epilepsy, Lennox-Gastaut syndrome and Dravet syndrome.

While the FDA has remained mostly mum on CBD, many consumers have embraced it as a medical miracle. According to a 2020 poll by singlecare.com, roughly 33% of Americans say they have used CBD. Only 12% said they took it recreationally, while the others claimed they used it for a wide range of conditions, from pain (the clear winner at 64%) to mental health and sleep disorders. Plus Facebook and Reddit CBD groups are full of gushing tales of the cannabinoid's prowess, which has caused many a CBD skeptic to raise an eyebrow. Making matters more confounding, because of its prior prohibition, CBD research is extremely limited.

In reality, CBD isn't a miracle drug, says Rachna Patel, MD, an expert on cannabis medicine who advises patients on drrachnapatel.com. However, Patelwho transitioned into the field in 2012, after budding cannabis research convinced her it could ease certain chronic conditions-has found CBD can help a good number of patients, especially those who have been struggling to find relief via conventional treatments. Even better, it can do so with almost none of the harmful side effects that often come with traditional pharmaceuticals.

A TOOL AGAINST PAIN

CBD appears to be effective at combating pain and inflammation (which causes a good deal of pain). Pain-including headaches as well as muscle aches and mild-to-moderate nerve pain-is one of the most common conditions Patel recommends CBD for. If someone starts out, for instance, with severe pain, there is a likelihood it will drop down to moderate or mild after adding in CBD, she says, while someone with mild pain could potentially reduce their level to near zero on the zero to 10 pain scale typically used in medicine.

It may, however, take some work to get the formula right. "I get specific in terms of the pain scale," Patel says. "In addition to severity, I'll also talk about frequency-if they have migraines, for instance, what results my patients have seen in frequency as well as duration with the episodes of pain they may experience."

Kansas City, Missouri-based April Hatch, RN, MSN, wasn't totally convinced she needed to take CBD when she began using it as a supplement several years ago. But she'd been intrigued by results she'd seen in friends and family members, including her teenage son, who'd used CBD to treat headaches and other lingering symptoms from a traumatic brain injury. She decided to give it a shot.

Hatch didn't realize it had produced any effect until months later, when a friend who'd stopped by asked for some ibuprofen. After rummaging through her medicine cabinet, Hatch, who typically used ibuprofen a couple of times a week, to soothe a sore knee or other ailment, couldn't find the bottle. "It was nowhere," she says. "That made me think, 'I have not taken it in about three months!' I [thought,] 'Wow, the only thing that's changed is, I'm taking CBD.'"

She was so impressed, she founded the Cannabis Care Team, which provides one-on-one consultations to educate Missouri MMJ patients about general health and wellness and cannabis.

Fellow Missouri resident Mitch Meyers got involved in CBD after being similarly wowed by its effects. She founded the CBD company BeLeaf Medical and helped develop the Cannabis Science and Operations certificate program that Saint Louis University began offering in fall 2020.

She's been particularly impressed with the impact CBD can have on painful conditions that affect seniors. "A lot of older people with arthritis pain take a tincture internally and get relief from that, with no side effects," says Meyers, who herself uses a CBD supplement daily, to prevent inflammation. "There are a few things it's very good for."

MENTAL HEALTH & BEYOND

In addition to pain and inflammatory conditions, patients often use CBD to address mental health issues such as depression and anxiety.

Hatch says that one of her patients in his 60s was able to greatly lower his reliance on prescription meds by adding CBD into the mix (with medical supervision). "He found, just by taking CBD, he was able to reduce his antidepressant by half a dose, which was big for him because so often, pharmaceuticals [can] stop working [the same way for people] over time or you have to keep upping your dose."

Anxiety is another area where CBD is becoming a big player. Results from a study testing the effects of CBD use on anxiety in a simulated public speaking event, published in the American College of Neuropsychopharmacology's journal, found that CBD use significantly reduced anxiety and cognitive impairment.

"[CBD is] calming," says Meyers. "We see a lot of young women who are very anxious today and don't want to be on [prescription medication] trying CBD for that purpose."

For patients experiencing sleep issues, CBD can result in noticeable drowsiness when taken at bedtime, says Patel. Indeed, studies have found evidence of better sleep quality and fewer sleep disturbances in people taking cannabis or cannabinoids, according to the National Center for Complementary and Integrative Health.

Patel says that she has also incorporated CBD into treatment for children and adults with autism. "A lot of times, those children tend to have aggressive behavior, which they tend to have a reduction in [when on CBD]."

Research also indicates that CBD's anti-inflammatory and antibacterial properties could make it a boon for skin care-and any trip to a cosmetics counter will certainly show that the industry is already using it as a star ingredient. One 2020 study found that topical use may offer benefits in the treatment of disorders such as eczema and psoriasis as well as, potentially, with dermatological conditions like acne; another study, released in 2019, found that CBD-enriched ointment use on lesioned skin improved inflammatory and other symptoms. "Scientists discovered that CBD interacts with components of your skin's immune defense mechanisms, also known as your endocannabinoid system [ECS]," explains Andrew Kerklaan, DC, founder of the Santa Monica, California-based Dr. Kerklaan Therapeutics CBD company. "Your ECS has various receptors throughout your body and, specifically, in the skin, that are involved in regulating and maintaining healthy function. CBD binds to receptors located in your skin, hence influencing normal function."

A CUSTOMIZED APPROACH

CBD may not be an ideal match for every ailment or individual. For instance, although people have consistently asked Patel if it will reduce high blood pressure, patients she's seen with



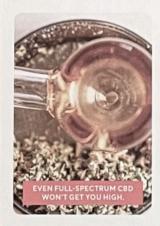
ON THE SPECTRUM

CBD comes in three

THUL-SPECTRUM
These products contain
all the cannabinoids and
terpenes found in the hemp
plant, including trace
amounts—0.3% or less—of
THC. Some claim that CBD is
most effective in this form
because all the compounds
work together to create a
phenomenon known as
the entourage effect.

BROAD-SPECTRUM
Broad-spectrum products
contain almost all the
cannabinoids and terpenes
but have had all the
THC removed. Some people
who are subjected to very
sensitive drug tests for
THC prefer broad-spectrum
for this reason.

3 ISOLATE
This is a pure form of a single cannabinoid, usually CBD.



that condition who have used CBD for other reasons didn't see a change in blood pressure.

Even when CBD is an applicable option, a number of considerations can influence how effective it ultimately will be. People need to select the right strength and product and take the correct dose at the frequency that's appropriate for them, Patel says.

Although people sometimes think dosage is determined by age and weight, that's actually a myth, according to Patel, who says that fat cell turnover rate can be a factor because CBD is fat soluble and stored in your body's fat cells. "The range can vary from person to person," she says. "I've had patients need as little as 0.5 mg or need as much as 1000 mg."

The way CBD is administered is another significant factor, which a patient's condition may determine. Inhaling is the quickest method, according to Patel, taking only seconds or minutes to have an effect; edibles take the longest—anywhere from 30-minutes to two hours. For those with localized conditions, a topical salve or cream might be an option. "[If] you have psoriasis," Patel says. "You would turn to a topical form of CBD as opposed to using it internally. It's going to vary highly from condition to condition."

Some of her patients take CBD on an as-needed basis instead of daily or at other regular intervals. "For those who have anxiety, that's circumstantial—they use it when they're experiencing the stress that's causing their anxiety," she says. "Then they stop using it and won't for days or weeks, then go back to using it."

Seeing an experienced medical professional, she advises, can help you avoid the trial and error process that would otherwise be required to determine which type of CBD may be the best fit and how often to take it. A medical professional can also explain what effect CBD will likely produce so that patients have realistic expectations for this useful but not-quitemiracle compound.