## <u>PERSPECTIVES</u>

# A Hemp oil, CBD, and Marijuana Primer: Powerful Pain, Insomnia, and Anxiety-relieving Tools!

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If cannabis were a pharmaceutical, every doctor would know about it and be using it every day in their practice, and it would cost more than \$30 000 per year. In fact, this is the current push, with the US Food and Drug Administration recently approving the cannabidiol (CBD) "medication" Epidiolex at that price for treatment of a special form of refractory seizures.

But with CBD, hemp oil, and even cannabinoids, often legally available without prescription at a tiny fraction of the cost, most physicians are not yet familiar with the research and how to use these. Safely and legally. Despite being remarkably effective for pain, anxiety, insomnia, and even cancer.

By the end of this article, you will be!

#### THE RIGHT STUFF

It is important to note that not all hemp oil or CBD products are created equal. Although the products available through medical marijuana dispensaries tend to be of good quality, many, if not most, of those otherwise available over the counter are not. They seem to spend most of their money on advertising and labels rather than what is in the bottle.

This is important. Without experience, it is hard to tell how much of the active components are present in many products. Many of them have labels that are dramatically

*misrepresented.* For example, it may say CBD 100 mg in bold type on the label but have less than 3 mg per dose.

A good form comes from concentrated European Hemp (*Cannabis sativa*) stalk and seed oil. These can be found in 50-mg capsules containing 20% CBD (ie, 10 mg of CBD per capsule).

Because of this, I'm very picky about what brand I use. I find **Hemp Oil by EuroMedica** (available through Emerson Ecologics) to be dramatically effective. The optimal dosing is 3 capsules twice per day and 5 at bedtime. At about \$1.00 per capsule, I start at this higher dose so people can see what its optimal effectiveness is, and then I drop to the lowest dose that maintains the best "bang for the buck." This is often as little as 1 capsule twice per day.

I find it more cost-effective to use a straight hemp oil product without added curcumin or other components. I then will add Curaphen to it, which has been a pain relief miracle for many people.

Given 6 weeks to work, the combination is remarkable. It can be combined with any other pain medications or herbals as well.

There is no upper safe limit. It can be combined with other pain medications, and the dose adjusted as works best for the person you're treating.

#### A BIT OF BACKGROUND

Cannabinoid receptors are critical for pain relief, sleep, immunity (including addressing cancers), and mood, along with numerous other functions. There are more than 60 active different cannabinoids in the whole hemp oil, although tetrahydrocannabinol (THC) and CBD have been the most researched. But the synergy of combining all of these using whole hemp oil is rather remarkable, as I will discuss later.

Let's take a look at this, beginning with pain.

#### Pain Relief and Cannabinoids

One-third of Americans suffer with pain, needlessly. This is compounded by 15 000 overdose deaths per year from prescribed narcotics, and 30 000 to 50 000 avoidable U.S. deaths per year from nonsteroidal anti-inflammatory drugs (NSAIDs) and arthritis medications (eg, ibuprofen). Haven't heard about the meta-analyses of more half a million

patient years showing the latter? This is no surprise, with these medications being major media advertisers. Happy to supply the study references and calculations if you'd like on yearly NSAIDs deaths (my email is FatigueDoc@Gmail.com).

Meanwhile, having fought a failed and very poorly handled war on pain, the government has now declared a **War on People in Pain.** This is horrible and abusive, adds social stigma to people's suffering, and causes much more toxicity than benefit. Attacking people in pain, and denying them the treatment they need, is inexcusable!

Fortunately, almost all pain can be effectively treated using an optimal mix of natural and prescription options. Safely.

Although I hesitate to jump into the marijuana political quagmire, we have had such incredible feedback from people getting relief from hemp oil and marijuana that I am feeling the need to add my opinion.

The bottom line? These are powerful and very helpful tools. Fortunately, with hemp oil now being available and legal in all 50 states, people don't have to get high, or take the risk of getting arrested, to use them!

Let me state this simply and clearly. **Pain is more toxic** than the pain medications. Yet countless millions of people are given a "Sophie's Choice:"

- 1. Be in pain.
- 2. Be dead from the pain medication.

This is a stupid and cruel choice to give the people we treat. And all too many doctors only give option 1.

Choose "Door # 3" instead ...

#### Treat the Root Causes of Pain

Although it feels like it, pain is not the enemy. Rather, it is like the oil light on your body's dashboard telling you that something needs attention. Instead of the medical approach to put a Band-Aid over the oil light, or cut it out, there is a third choice. Simply put, oil in the car. Just like the oil light goes out by putting oil in the car, when you give your body what it is asking for, our research shows that the pain routinely goes away.

#### Treating Pains Root Causes: The Fibromyalgia Model

In our study using the SHINE Protocol, 91% of people with fibromyalgia improved with an average 90% increase in quality of life. This protocol gives the body what it is needing. For free fibromyalgia treatment tools, feel free to email me at FatigueDoc@gmail.com. Fibromyalgia is a good model as it includes most kinds of pain.

#### **Key Biochemical Components of Pain**

It is important to hit pain from multiple directions. Most medications, and even most natural options, address only 1 or 2 of the items in the following list. Remarkably, different cannabinoids in hemp oil improve all 10 of the domains as follows:

- 1. Muscle pain and shortening.
- 2. Neuropathic pain.
- 3. Inflammation.
- 4. Nerve pain from other causes.
- 5. Central sensitization or "brain pain."
- 6. Neurotransmitters (eg, serotonin, dopamine, and *N*-methyl-D-aspartate [NMDA] and allodynia).

All of these can be successfully addressed, naturally, using cannabinoids such as hemp oil and CBD!

#### **Contributing Pain Comorbidities**

- 1. Insomnia.
- 2. Anxiety and depression.
- 3. Adverse response conditioning (fear of pain).
- 4. Tightening of fascia.

#### Let's Look at Just a Few Active Components of Hemp Oil

Marijuana and hemp oil both contain a number of active components. These include:

1. THC (not in the hemp oil, just in marijuana). This is the most talked-about component in marijuana. It is what causes the psychoactive high. It can be helpful but comes with significant side effects, for example: poor functioning and jail. (North American forms of marijuana are also low in CBD.)

Despite the aforementioned, it is safer than arthritis medications and narcotics. Marijuana, containing THC, is especially important for treating cancer. It is less important for pain, insomnia, and anxiety. Yet, it is a remarkable herbal remedy for all of these conditions.

CBD has been the other most actively researched cannabinoid. This does not, however, necessarily make it the most effective. Other components of the herb, as usual, significantly add to the synergy

- 1. CBD.
  - a. Antioxidative, anti-inflammatory, and neuroprotection effects.
  - b. Reduces joint swelling—even helpful in rheumatoid arthritis.
  - c. Studies show no tolerance (ie, it maintains its effectiveness with time).
  - d. Shown to decrease "aversive conditioned memory" (fear and suffering).
  - e. CBD potently reduces anxiety or fear.

### CBD and THC (Study Excerpts)

- 1. "Cannabis use improved symptoms such as spasticity, pain, tremor and depression in more than 90% of patients. In eight different clinical studies, MS patients have also reported the benefits of THC."
- 2. "Arevalo-Martin et al demonstrated that cannabinoid agonists ... inhibited the activation of microglial cells."

- Translation? It helps central sensitization or brain pain from chronic pain. This is a powerful benefit.
- 3. CBD, in animal studies, show "anti-inflammatory properties ... In rheumatoid arthritis."
- 4. A mix of THC and CBD (about 2.5 mg of each per dose) "was approved in Canada in 2005 for treatment of central neuropathic pain in multiple sclerosis, and in 2007 for intractable cancer pain. Numerous randomized clinical trials have demonstrated safety and efficacy for ... central and peripheral neuropathic pain, rheumatoid arthritis and cancer pain."
- 5. "Active in nociceptive spinal areas including mechanisms of wind-up and *N*-methyl-D-aspartate (NMDA) receptors. It was recently demonstrated that cannabinoid agonists suppress ... allodynia.[This helps] neuropathic pain ... migraine and fibromyalgia via NMDA mechanisms ... [producing a] 30%–40% reduction in NMDA responses."
- 6. Cannabinoids and Inflammation: "THC has twenty times the anti-inflammatory potency of aspirin and twice that of hydrocortisone, but in contrast to all nonsteroidal anti-inflammatory drugs (NSAIDs), demonstrates no cyclo-oxygenase (COX) inhibition at physiological concentrations."

#### **THC and Opiates**

- 1. THC has been shown to stimulate beta-endorphin production ... [and]" may allow opiate sparing." This means it makes opiates more effective at lower dose and may reverse tolerance.
- 2. A recent *JAMA* study showed a 15.6% drop in opioid deaths in medical marijuana states after marijuana was legalized, after decades of opioid overdose deaths accelerating.

#### Other Important Cannabinoids

- 1. Cannabichromene (CBC) is the third most prevalent cannabinoid in cannabis and is also anti-inflammatory and analgesic.
- "Cannabigerol (CBG) exhibits GABA uptake inhibition to a greater extent than THC or CBD, suggesting possible utilization as a muscle relaxant in spasticity. Furthermore, CBG has more potent analgesic ... activity than THC.
- 2. Hemp terpenoids are also important:
  - a. "Myrcene is analgesic, and such activity, in contrast to cannabinoids, is blocked by naloxone, suggesting an opioid-like mechanism. It also blocks inflammation via PGE-2."
  - b. "The cannabis sesquiterpenoid  $\beta$ -caryophyllene is anti-inflammatory ... but simultaneously acts as a gastric cytoprotective."
  - c. "α-Pinene also inhibits PGE-1, while linalool displays local anesthetic effects."
- 4. "Flavonoids in whole ... extracts may also contribute useful activity. Apigenin inhibits TNF- $\alpha$ , a

- mechanism germane to multiple sclerosis and rheumatoid arthritis. Cannflavin A ... inhibits PGE-2 thirty times more potently than aspirin."
- 5. "Finally, β-sitosterol, a phytosterol found in cannabis, reduced topical inflammation 65% and chronic edema 41% in skin models."

So these are simply the benefits of 10 studied components of hemp oil. The whole hemp oil has about 60 cannabinoids, all of which can lend to its effectiveness.

#### Another Key Side Benefits of Hemp Oil: Sleep

"Highly statistically significant improvements have been observed in sleep parameters in virtually all RCTs performed with [hemp oil components] ... in chronic pain conditions leading to reduced "symptomatic insomnia" due to symptom reduction rather than sedative effects."

Sleep is critical for pain relief, triggering growth hormone release and tissue healing. Cannabinoids are also suggested to *decrease* sleep apnea.

#### **SUMMARY**

The components of hemp oil have been shown to help almost all of the components and types of pain, including the following:

- 1. Muscle tightness.
- 2. Nerve pain.
- 3. Inflammation.
- 4. Neurotransmitters including NMDA, GABA, and serotonin.
- 5. Central sensitization.
- 6. Arthritis.
- 7. Cancer pain.

These also are dramatically beneficial for sleep and anxiety.

Ignore the politics and go with the science. The People You Treat Can Get Pain-Free: NOW!