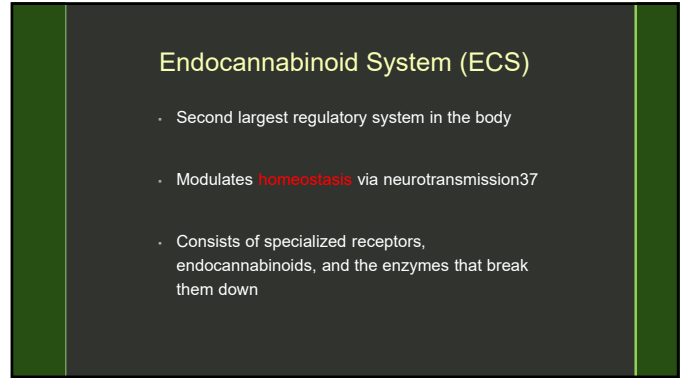
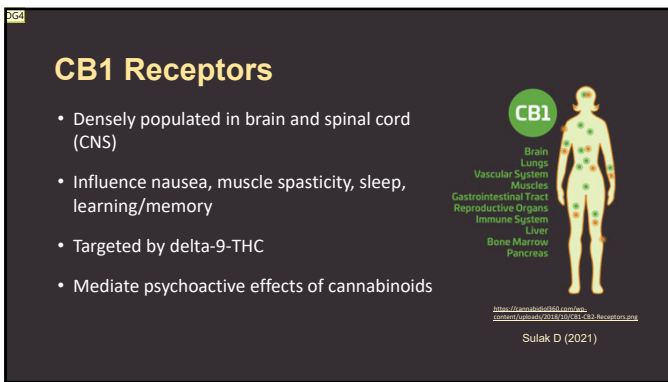




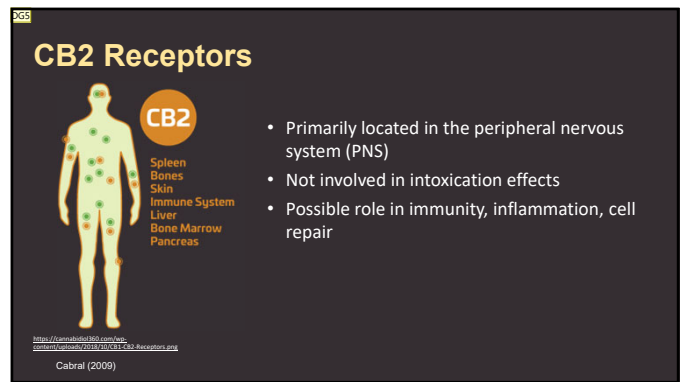
1



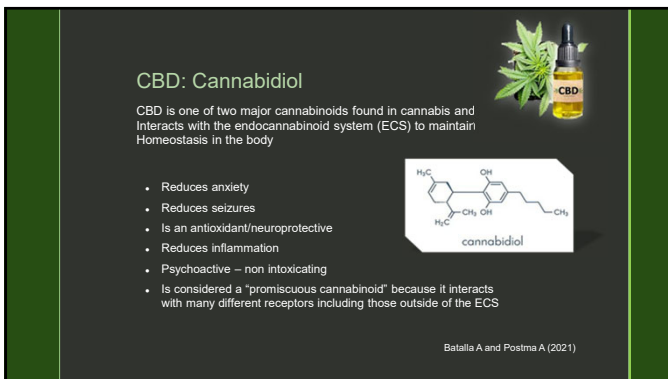
2



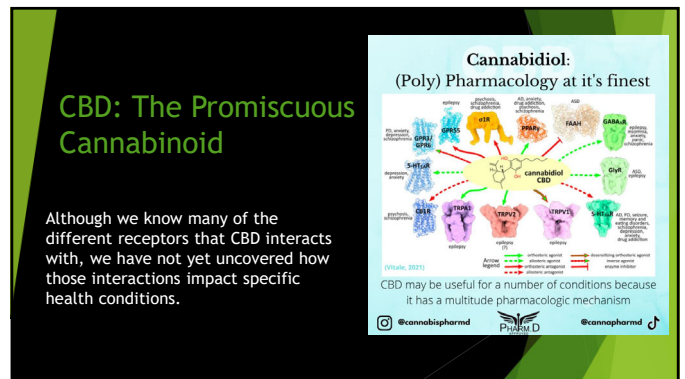
3



4



5



6

Slide 3

DG4 41. Sulak D. Handbook Of Cannabis For Clinicians. 1st ed. New York: Versa Press; 2021:163.

CB1 receptors are densely populated in the CNS which includes the brain and spinal cord. These receptors influence nausea, muscle spasticity, sleep, pain, learning, and memory. They are targeted by delta 9THC, and they mediate psychoactive effects of cannabinoids.

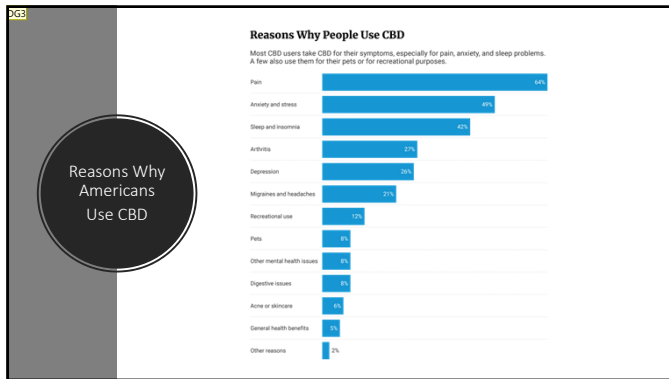
DrMisty Green, 2/20/2023

Slide 4

DG5 42. Cabral GA, Griffin-Thomas L. Emerging role of the cannabinoid receptor CB2 in immune regulation: therapeutic prospects for neuroinflammation. Expert Rev Mol Med. 2009;11:e3. Published 2009 Jan 20. doi:10.1017/S1462399409000957

CB2 receptors are primarily located in the peripheral nervous system including the spleen, bones, skin, immune system, liver, bone marrow, and pancreas. CB2 receptors are not involved in the intoxicating effects felt from cannabis but they may play a role in immunity, inflammation, and cell repair.

DrMisty Green, 2/20/2023



7

Anxiety and Women's Health

- ▶ 27.3% of American adults have anxiety complaints. Our World Data (2018)
- ▶ >149 million women suffer from some type of anxiety disorder annually (Data Visualization of Our World, 2018).
- ▶ One in three women will meet the criteria for an anxiety or related disorder in their lifetime.

From puberty to age 50, women are nearly **twice** as likely as men to develop an **ANXIETY DISORDER**.

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Anxiety Disorder

Treatment: Depending upon the variety, chemistry, the mindset of the user and dose, cannabis can reduce or increase anxiety. It is important that these **variables** are understood to increase the likelihood of relieving the symptoms of anxiety.

When to take: It is suggested that CBD be taken during the day (morning and mid-afternoon) with the last dose taken before 5pm so that sleep is not disrupted.

What to take: CBD doses between 2.5 and 10 mg/ 2x per day

Oral: Tincture administered sublingually. CBD can also be taken in edible form.

Topical: N/A

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Anxiety and CBD Research

Spinella TC, Stewart SH, Naugler J, Yakovenko J, Barrett SP. Evaluating cannabidiol (CBD) expectancy effects on acute stress and anxiety in healthy adults: a randomized crossover study. *Psychopharmacology (Berl)*. 2021;238(7):1965-1977. doi:10.1007/s00213-021-05823-w

Larsen C, Shahinas J. Dosage, Efficacy and Safety of Cannabidiol Administration in Adults: A Systematic Review of Human Trials. *J Clin Med Res*. 2020;12(3):129-141. doi:10.14740/jocmr4090

Khan R, Naveed S, Mian N, Fida A, Basley MA, Aedma KK. The therapeutic role of Cannabidiol in mental health: a systematic review. *J Cannabis Res*. 2020;2(1):2. Published 2020 Jan 2. doi:10.1186/s42238-019-0012-y

PubMed is a great resource for up-to-date cannabis research

10

Fibromyalgia

Fibromyalgia affects about 4 million US adults (about 2% of the adult population)

Women are twice as likely to have fibromyalgia as men.

Considered a rheumatic (autoimmune) disorder

It is estimated that about 20-30% of patients with rheumatic diseases have fibromyalgia syndrome (FMS)

Symptoms include:

- Widespread pain (sensitive to pressure)
- Insomnia
- Mental fog/fatigue
- Joint stiffness

Centers for Disease Control and Prevention. (2020, January 6). Fibromyalgia. Centers for Disease Control and Prevention. Retrieved February 26, 2023, from <https://www.cdc.gov/arthritis/basics/fibromyalgia.htm>

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Fibromyalgia Disorder (Autoimmune)

Treatment: A two-layer CBD protocol would benefit patients with fibromyalgia, utilizing an oil to be taken orally and a topical cream to be used on painful joints and muscles.

What to take: CBD tincture (sublingual) 2 doses per day, between 4 and 15 mg, (broad spectrum). Dose may be increased by 50% every 5 days until therapeutic dose/response is reached

When to take: It is suggested that CBD be taken during the day (morning and mid-afternoon) with the last dose taken before 5pm so that sleep is not disrupted.

Topical: Apply CBD oil or cream on affected areas as needed

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Slide 7

DG3 slide 47 and 48 cover the same info. CBD use is covered on the CBD slide 16 so I think this slide may be more relevant at what people are trying to treat with CBD rather than a list of conditions without comparisons.

DrMisty Green, 2/20/2023

Cannabis Educational Resources (for doctors and patients)

[Americans for Safe Access \(safeaccessnow.org\)](http://safeaccessnow.org)

[NORML - Working to Reform Marijuana Laws Since 1970](#)

[Patients Out of Time - guidance for patients and caregivers](#)

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Fibromyalgia and CBD Research

Jimena Fiz, et al., "Cannabis Use in Patients with Fibromyalgia: Effect on Symptoms, Relief, and Health Related Quality of Life", PLoS One 6.4 (2011):e18440

Khurshid H. Qureshi IA, Jahan N, et al. A Systematic Review of Fibromyalgia and Recent Advancements in Treatment: Is Medicinal Cannabis a New Hope?. Cureus. 2021;13(8):e17332. Published 2021 Aug 20. doi:10.7759/cureus.17332

Backes, Michael. Cannabis Pharmacy: the practical guide to medical marijuana. Black dog and Leventhal Publishers New York, NY. Revised December 2017. Pg.213-14

PubMed is a great resource for up-to-date cannabis research

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