



Post-traumatic stress disorder (PTSD) is a serious condition that involves a person developing characteristic symptoms — such as flashbacks, numbing, and avoidance — after experiencing a traumatic stressor. Finding pharmaceutical options dangerous or ineffective, thousands of patients have turned to medical cannabis for relief, and states are increasingly adding PTSD to their lists of qualifying conditions for medical cannabis.

Upon the recommendation of an eight-member advisory board of physicians, New Mexico became the first state to specifically list PTSD as a qualifying condition in 2009. Now, 18 states, the District of Columbia, and Guam allow patients to administer medical cannabis for PTSD. Fifteen states specifically list it as a qualifying condition — either by statute or in regulations — while three more and Washington D.C. allow doctors broad latitude to recommend cannabis for any serious conditions. (See below for a chart of the states' approaches.)

Unfortunately, there has been limited research on cannabis and PTSD, largely due to federal obstacles to clinical research. However, there are ongoing trials in Israel, where an open pilot study found marijuana effective at alleviating combat veterans' symptoms. In addition, other human and animal evidence supports cannabis' therapeutic potential in treating PTSD.

### **The limitations of other medications**

Pharmaceutical drugs such as antipsychotics and antidepressants are often used to treat PTSD;<sup>1</sup> however, according to researchers, such medications can be ineffective<sup>2</sup> or even harmful.<sup>3,4</sup> *The New York Times* summarized the results of the largest study on antipsychotics' use in treating PTSD, saying, "Drugs widely prescribed to treat severe post-traumatic stress symptoms for veterans are no more effective than placebos and come with serious side effects ..."<sup>5</sup>

### **Research thwarted and delayed by federal government**

Cannabis' therapeutic effects in treating the symptoms of PTSD have garnered interest from the medical community, and the FDA has approved a clinical trial to study it further. Unfortunately, there has been limited research on whole plant marijuana and PTSD due to federal obstruction of research. In 2011, the FDA approved a study to test whether marijuana can ease the symptoms of PTSD in combat veterans, but a Health and Human Services Department committee refused to provide the researchers with the government-grown marijuana necessary to conduct the study.<sup>6</sup> The researchers modified and resubmitted the study to address the concerns and finally got approval in 2014. Yet, the type of medical cannabis they needed for the trial was not actually available. As of September 2016, the study is finally about to begin.

### **Science, studies, and research**

Research has been conducted outside the U.S., including clinical trials ongoing in Israel, where a 2012 open pilot study in the Abarbanel Mental Hospital found that "medical cannabis was associated with a reduction in PTSD symptoms."<sup>7</sup>

In addition, a study conducted by Canadian researcher Dr. George Fraser involved administering nabilone — a prescription drug made of a synthetic cannabinoid (component of marijuana) — to patients who had PTSD with treatment-resistant nightmares. Fraser reported, "The majority of patients (72%) receiving nabilone experienced either cessation of nightmares or a significant reduction in nightmare intensity. Subjective improvement in sleep time, the quality of sleep, and the reduction of day-time flashbacks and night sweats were also noted by some patients."<sup>8</sup>

In New Mexico, a study of 80 patients who administered medical marijuana for PTSD, pursuant to state law, found "greater than 75% reduction in [Clinician Administered Post-traumatic Scale] symptom scores were reported when patients were using cannabis than when they were not... There is extensive evidence that

cannabinoids may facilitate extinction of aversive memories."<sup>9</sup> The report concludes, "There are currently 3350 patients enrolled in the PTSD program. To date, there have been no incidents or adverse events."

### States' approaches

States are increasingly adding PTSD as a qualifying condition to existing medical marijuana programs or passing new laws that include PTSD from the outset. Eighteen of the 25 states with medical cannabis programs currently allow medical cannabis for PTSD, as do Guam and the District of Columbia.

Jurisdiction	Is PTSD Specifically Listed?	Allowed by Legislation, Initiative, or Administratively?
Arizona	PTSD is listed in regulations	Administratively
California	PTSD is not specifically listed; the law allows broad discretion for doctors	Initiative
Connecticut	PTSD is listed in the law	Legislation
Delaware	PTSD is listed in the law	Legislation
Hawaii	PTSD is listed in the law	Legislation
Illinois	PTSD is listed in the law	Legislation
Maine	PTSD is listed in the law	Legislation
Maryland	The law allows broad discretion for doctors, and doctors are encouraged to certify patients with PTSD in regulations	Legislation
Massachusetts	PTSD is not specifically listed; the law allows broad discretion for doctors	Initiative
Michigan	PTSD is listed in regulations	Administratively
Nevada	PTSD is listed in regulations	Administratively
New Mexico	PTSD is listed in regulations	Administratively
New Jersey	PTSD is listed in the law	Legislation
Oregon	PTSD is listed in the law	Legislation
Ohio	PTSD is listed in the law	Legislation
Pennsylvania	PTSD is listed in the law	Legislation
Rhode Island	PTSD is listed in the law	Legislation
Washington State	PTSD is listed in the law	Legislation
Guam	PTSD is listed in the law	Initiative
Washington, D.C.	PTSD is not specifically listed; the law allows broad discretion for doctors	Legislation

<sup>1</sup> Mayo Clinic Staff, "Post Traumatic Stress Disorder, Treatment and Drugs," Mayo Clinic.

<sup>2</sup> B. Carey, "Drugs Found Ineffective for Veteran's Stress," *The New York Times*, August 2, 2011.

<sup>3</sup> Press Release, "Opioids drive continued increase in drug overdose deaths," Centers for Disease Control and Prevention, February 20, 2013. [http://www.cdc.gov/media/releases/2013/p0220\\_drug\\_overdose\\_deaths.html](http://www.cdc.gov/media/releases/2013/p0220_drug_overdose_deaths.html)

<sup>4</sup> J. Lloyd, "CDC: Antidepressant Use Skyrockets 400% in Past 20 Years," *USA Today*, October 20, 2011.

<sup>5</sup> Carey, Benedict, "Drugs Found Ineffective for Veterans' Stress," *The New York Times*, August 2, 2011.

<sup>6</sup> Vastag, Brian, "Marijuana study of traumatized veterans stuck in regulatory limbo," *Washington Post*, October 1, 2011.

<sup>7</sup> Mashiah, Mordechai, "Medical Cannabis as Treatment for Chronic Combat PTSD: Promising Results in an Open Pilot Study," Abarbanel Mental Hospital, Israel, presented at Patients Out of Time Conference (2012).

<sup>8</sup> Fraser, George, "The Use of a Synthetic Cannabinoid in the Management of Treatment-Resistant Nightmares in Posttraumatic Stress Disorder (PTSD)," *CNS Neuroscience & Therapeutics* 15, no 1. (2009): 84-88.

<sup>9</sup> George Greer, et al, "PTSD Symptom Reports of Patients Evaluated for the New Mexico Medical Cannabis Program," *Journal of Psychoactive Drugs*, March 2014.