

## IN BRIEF A Summary of the Evidence

# Medical Marijuana for Post-Traumatic Stress Disorder: A Review

### Key Messages

- The effectiveness of medical cannabinoids, or marijuana, whether inhaled marijuana or oral tetrahydrocannabinol, in treating some symptoms of post-traumatic stress disorder (PTSD) – particularly nightmares and sleep quality and quantity – is unclear.
- Nabilone, a synthetic marijuana, has been found in a few studies to be effective in reducing some symptoms in PTSD in the short-term, although this finding is based on low-quality evidence.
- Guidelines regarding the use of medical or synthetic cannabinoids in adult patients with PTSD were not found.
- Previous reviews by CADTH on the clinical effectiveness and safety of cannabinoids for the treatment PTSD found limited evidence.

### Condition

Post-traumatic stress disorder (PTSD) is a psychiatric disorder that can occur after experiencing a traumatic, shocking, or scary event – such as injury, violence, or death. People with PTSD tend to experience traumatic nightmares and other sleep difficulties, as well as recurrent intrusive memories (e.g., flashbacks), exaggerated startle responses, negative changes in mood and cognition, and other debilitating symptoms. Significant distress – along with social, occupational, and other functional impairment – can result. The lifetime prevalence of PTSD in Canada is estimated at 9.2%.

### Drugs

Marijuana, also referred to as cannabis, is used medically as an antiemetic to prevent nausea and vomiting, and as a sedative, analgesic, and appetite stimulant. Whereas marijuana is not currently an approved therapeutic product in Canada, Health Canada lists PTSD among many conditions in which medical marijuana may be considered of potential therapeutic benefit.

Canadian health care practitioners can authorize their patients to access cannabis for medical purposes, subject to certain terms and conditions.

Marijuana contains hundreds of cannabinoid compounds. The two primary cannabinoids are delta-9-tetrahydrocannabinol (THC), which is responsible for producing the “high” experienced by users, and cannabidiol, which is responsible for many of the pharmacological reactions but does not produce a high. Synthetic cannabinoids, such as nabilone, are also available. Unlike inhaled marijuana, synthetic cannabinoids can be delivered via a standardized, reproducible dose.

### Issue

Medical marijuana and synthetic cannabinoids have been used in the treatment of patients with PTSD; however, the effectiveness of this drug therapy is unclear. A review of the clinical effectiveness of both medical marijuana and synthetic cannabinoids for the treatment of PTSD in adults will help inform decisions regarding their use.

### Methods

A limited literature search was conducted of key resources, and titles and abstracts of the retrieved publications were reviewed. Full-text publications were evaluated for final article selection according to predetermined selection criteria (population, intervention, comparator, outcomes, and study designs).

### Results

The literature search identified 206 citations, with four additional articles identified from other sources. Of these, one met the criteria for inclusion in this review – one systematic review, which included six studies in adults with PTSD.

### Read more about CADTH and its review of medical marijuana at:



[cadth.ca/medical-marijuana-post-traumatic-stress-disorder-review-clinical-effectiveness-and-guidelines-0](https://cadth.ca/medical-marijuana-post-traumatic-stress-disorder-review-clinical-effectiveness-and-guidelines-0)

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CADTH is an independent, not-for-profit organization responsible for providing Canada's health care decision-makers with objective evidence to help make informed decisions about the optimal use of drugs and medical devices in our health care system.

CADTH receives funding from Canada's federal, provincial, and territorial governments, with the exception of Quebec.

*Ce document est également disponible en français.*

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