

# CHRONIC PAIN



1 in 5 adults in America have chronic pain.



Chronic pain is an emotional experience. Fear, anxiety, depression, anger, stress, and negative thoughts strengthen the pain signal and make pain feel worse.



## CANNABIS

- 62% of individuals using cannabis for medical reasons are using it for pain (Boenke et al., 2019).

## BENEFITS

- There is substantial evidence suggesting pain relieving effects of cannabinoids.
- CBD antagonizes tumor necrosis factor-alpha (TNF-a) in several rodent model studies and this mechanism can potentially reduce inflammation and pain.
- There is some evidence supporting the anti-inflammatory effects of CBD which down-regulate cytokine and chemokine production and, in some models, up-regulate T-regulatory cells (Tregs) as a mechanism to suppress inflammatory responses.

## RISKS

- THC is a psychoactive cannabinoid. Large doses of THC can cause sedative effects and mental health problems.
- Higher THC levels may also mean a greater risk for addiction if people are regularly exposing themselves to high doses.
- The mechanisms are *not* clear. May be analgesic, psychological, or affective. The optimal formulation, route of administration, dose, and cannabinoid profile are *not* clear.

## REDUCE RISKS

- High CBD and low THC ratio of cannabinoids reduces risks while maintaining benefits.
- Slow titration period (up to 2 weeks) to find the proper dose per cannabis product and route of administration.
- Avoid cannabis use before adulthood since it can adversely affect the developing brain.

### Sources:

<https://nccih.nih.gov/health/pain/chronic.htm>

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2828614/>

<https://www.nap.edu/catalog/24625/the-health-effects-of-cannabis-and-cannabinoids-the-current-state>

<https://www.cdc.gov/mmwr/volumes/67/wr/mm6736a2.htm>

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