

# MEDICINAL CANNABIS AND CHRONIC PAIN\*

## \* CARE AND QUALITY OF LIFE

As humans, we try to avoid pain as much as possible. Pain is discomfort magnified to a degree that feels unbearable—a sign that something is wrong. Pain consumes our focus and makes it almost impossible to concentrate or give our attention to other things. Living with constant pain is a near-unimaginable experience for most people. But for 1 in 5 Australians, chronic pain is a reality—and for many, a living nightmare.

Chronic pain's effects on everyday life as well as mental and physical health can be devastating. Social activities, work, hobbies—everything becomes much more difficult, if not impossible, to engage in and enjoy. On top of daily struggles, chronic pain is often accompanied by mood disorders (most commonly depression) brought about by the persistent presence of pain and the emotional stress of not knowing if the pain will ever go away. Anxiety, sleep disorders, and overall reduced quality of life are also effects closely associated with chronic pain.

Medigrowth believes medicinal cannabis can help improve the lives of millions as an easily accessible, natural and effective treatment for chronic pain.

According to Pain Australia, chronic pain is common, with 3.37 million Australians reported to be affected by it.

Chronic pain refers to persistent, ongoing pain that doesn't abate after the cause is treated (as opposed to acute pain, which onsets suddenly and resolves after the cause is dealt with).

The treatment response needed for patients with chronic pain is typically complex. It requires investigating different medication combinations, procedures and rehabilitation to find the right analgesic effect for patients. This is generally not an easy task, especially for chronic musculoskeletal pain, which is one of the most difficult pain-related medical issues to treat.



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## Chronic pain and aging

Patients over the age of 45 are particularly at risk for developing chronic pain.

The [Australian Institute of Health and Welfare \(AIHW\) reports](#) that chronic pain costs an estimated \$139 billion in Australia, mostly through reduced quality of life and productivity losses.

There is also a direct correlation between ageing and chronic pain diagnosis.

National pain advocacy body [PainAustralia reported](#) in 2018 that the number of Australians suffering with chronic pain rises with age. Over 1 million Australians (aged 65 and over) are living with chronic pain, with rates almost twice as high as the working-age population. For example, only 9.8% of women aged 15–24 received a chronic pain diagnosis; this rises to 22.8% in the 45–54 age group, and to 36% for female patients aged 75 and above.

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## Does cannabis cure chronic pain?

As legalisation and scientific research continues to advance across the world, cannabis—a once much maligned drug—is quickly gaining a reputation for its therapeutic potential.

Pain reduction is one of the drug's most talked about therapeutic benefits.

A [systematic review and meta analysis explored](#) the efficacy of cannabis-based treatments for pain management.

Forty-three randomised controlled trials were examined (total 2,437 patients). The results were mixed with some studies showing improvements and others not showing improvements for chronic pain. Overall, clinically significant reductions in pain were favourable to cannabis-based treatments compared to placebo treatments, especially for neuropathic pain (NP).

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## ALTERNATIVE TREATMENT OPTIONS

Due to the complex nature of chronic pain treatment, patients often receive inadequate pain care. Referral to pain specialists occurs less than 15% of the time, hence the urgent need for alternative treatment options. Thanks to the availability of medicinal cannabis, it can be prescribed as an alternative treatment option—one that is more easily accessible for those suffering from chronic pain in Australia.

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### How might cannabis reduce pain?

Much of the cannabis's therapeutic potential is due to cannabinoids, the active compounds that act on the endocannabinoid system to induce a range of effects on the body. The two main cannabinoids to note are tetrahydrocannabinol (THC) and cannabidiol (CBD):

THC is a psychoactive cannabinoid and is responsible for the 'high' that comes with consuming cannabis.

CBD is not psychoactive; however, both CBD and THC have demonstrated strong pain-relieving properties.

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### CBD

CBD's potential analgesic effect is thought to occur by increasing serotonin levels. Serotonin, a chemical found in the body, is typically associated with feelings of happiness, but has also been [linked to pain reduction](#), especially chronic pain.

CBD has demonstrated an ability to activate serotonin receptors and increase the potential chronic pain-reducing neurotransmitter, serotonin. One study showed that CBD managed to activate serotonin receptors, which led to a cellular response resulting in the reduction of pain perception.

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### THC

THC has also demonstrated strong pain-relieving abilities. Cannabinoid receptors are found throughout the body and THC binds to these receptors, causing a range of effects, including analgesia.

The [activation of CB1 is thought](#) to be responsible for much of THC's pain-relieving effects. CB1 is a cannabinoid receptor that when activated by THC, can cause an increase in both opioids and serotonin levels. We know that serotonin has been linked to pain relief and opioids are commonly used as a pain-relief medication. Common opioids include morphine and codeine.

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- \* With ageing populations particularly at risk of developing chronic pain symptoms, the safety of cannabis and cannabinoid use by ageing patients is an important factor to consider.

A 2018 [study](#) investigated this issue, examining 2,736 patients aged 65 and above after cannabis treatment. The study found that 66.6% of participants had taken cannabis for pain relief and after six months reported improved symptoms. This group also reported an impressive overall pain reduction from 8 to 4 (on a scale of 1–10). The most common side effects experienced by these participants were dizziness and dry mouth.

Importantly, the study found that cannabis treatment is not only a safe and effective pain treatment for older patients, but that it also demonstrates an ability to help patients reduce reliance on other prescription pain medications. 18.1% of the study's participants reported that they either stopped using opioid pain medications or reduced their use.

## SUMMARY

Current research has made it clear that cannabis is effective in treating chronic pain. The increased availability and use of medical cannabis in Australia could help to reduce the unnecessary harm caused by current pain-relief medications such as opioids, which have significantly more side effects than cannabis and carry greater risk for misuse.



# MEDIGROWTH

Medigrowth is driven by passion and the pursuit of excellence in cannabinoid medicine. As a fully licenced Australian medicinal cannabis biotech, our success is measured in real world change: improving lives for Australian patients and delivering results as a trusted B2B, research and medical partner. Our commitment to pure, safe and trusted Australian made medicinal cannabis drives our company culture to continually inspire, innovate and exceed.

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Patients and doctors can find further information on Medigrowth Australia and how to legally access medicinal cannabis products at [medigrowth.com.au](http://medigrowth.com.au)

