

Cannabis-based products ([part 2](#)): cannabis plant and tetrahydrocannabinol (THC)

Legal changes in December 2018 allow the use of the cannabis plant (*Cannabis sativa*) for palliative care, and prescribed tetrahydrocannabinol (THC) will be more accessible later this year. This bulletin aims to clarify the legal status and evidence for the cannabis plant and its main active constituent, THC.

What is the cannabis plant and tetrahydrocannabinol (THC)?

The cannabis plant contains hundreds of cannabinoids, and most are inactive. THC is the most biologically active and so the short-term effects of prescribed THC and smoked cannabis are similar. Cannabis plant and THC are not the same as [cannabidiol \(CBD\)](#) or [combination \(THC+CBD\) products](#) such as Sativex®. See the "[Cannabis-based products \(part 1\): an overview](#)" bulletin for details on classification.

Cannabis plant cannot be prescribed in New Zealand. Since December 2018, patients can legally use cannabis plant for therapeutic purposes if they are receiving palliative care.

THC is a partial agonist of cannabinoid receptors, although it is not known if this accounts for all of the effects of THC. The effects of the cannabis plant are similar to THC, but less predictable because quantities of THC and CBD varies between plants.

The information below applies to both THC and cannabis plant, however interpreting evidence for cannabis plant should be done with caution due to inconsistency in THC and CBD quantities.

Indications	<p><i>Chronic non-cancer pain:</i> In RCTs, there was slight benefit over placebo (number needed to treat of 24 for 30% pain reduction) and a high adverse effect rate (number needed to harm of 6).</p> <p><i>Nausea:</i> There is weak evidence suggesting THC is more effective than placebo but no better than older antiemetics (e.g. domperidone) and with more adverse effects. It has not been compared to newer antiemetics such as ondansetron.</p> <p><i>Refractory spasms in multiple sclerosis:</i> RCTs show some evidence of very slight benefit for THC, but Sativex® (combined THC/CBD) is preferred as it is approved for this indication.</p>
Dosing	There are no validated dosing regimens. Products are not equivalent. Seek specialist advice.
Adverse drug effects (ADEs)	<p><i>CNS:</i> Hallucinations, euphoria ("high"), dizziness, sedation, cognitive disturbance, anxiety</p> <p><i>Gastrointestinal:</i> Nausea, vomiting, diarrhoea, increased appetite</p> <p><i>Cardiovascular:</i> Tachycardia, hypotension, platelet inhibition</p> <p><i>General:</i> Weakness, fatigue</p>
Other cautions:	<ul style="list-style-type: none"> • Associated with tolerance, withdrawal and addiction. • May impair driving and use of heavy machinery. Some industries undertake drug testing. • Long-term effects of THC are unknown; chronic use of the plant is associated with psychosis. • Contraindicated in pregnancy and breastfeeding.
Funding	Not funded for any indication.
Prescribing	<ul style="list-style-type: none"> • THC is a controlled drug, and must be prescribed on a controlled drug script. Cannabis plant cannot be prescribed, including for use in palliative care. • Unapproved for all indications and supplied under Section 29. Prescribers currently need approval from the Ministry of Health on a named-patient basis and written patient consent.

THC and cannabis plant have only been trialled as an adjunct to conventional treatments. Due to the unfavourable risk / benefit profile, THC or the cannabis plant are not approved for any indication. Patients should be counselled that all use remains experimental.