

SIDE EFFECTS: *How cannabis affects a patient depends on many factors. In general, effects are usually mild, and patients seem to tolerate it well.*

Side effects to strongly consider are:

- Tachycardia/increased heart rate
- Lower blood pressure
- Sedation

Lesser side effects can include:

- Anxiety
- Delayed reactions
- Hunger pangs (“munchies”)
- Short term memory loss

If you have any concerns with side-effects speak to your GP, or for a free and frank discussion you can contact MCANZ at office@mcawarenessnz.org

DEPENDENCE: *While cannabis isn't physically addictive like other prescription drugs, psychological dependence does manifest in a minority.*

The most concerning impact of this for many is increased tolerance of the drug, leading to more cannabis being consumed for the same effect, with follow-on impacts for personal budgeting.

Treatment typically involves various forms of therapy.

Initial abstinence can lead to symptoms of anxiety, irritability, depression, restlessness, disturbed sleep, gastrointestinal symptoms and decreased appetite.

Most symptoms begin during the first week of abstinence and resolve after a few weeks.

VAPORISERS: *A safer alternative.*

Vaporisers work by heating cannabis to a temperature that causes the active ingredients to evaporate off for inhalation, without combustion.



- » *Studies conducted show that vaporising eliminates the formation of carcinogens. *3*
- » *Further studies have shown improvements in lung function for cannabis smokers who transition to vaping. *4*
- » *Although robust studies haven't ruled vaping harmless, it is well regarded as a comparatively safe and effective mode of delivery. *5*



*1 R. Elvik, “Risk of road accident associated with the use of drugs: A systematic review and meta-analysis of evidence from epidemiological studies,” *Accid. Anal. Prev.*, vol. 60, pp. 254–267, Nov. 2013.

*2 L. E. Collège, D. Médecins, and D. E. Famille, “Authorizing Dried Cannabis for Chronic Pain or Anxiety Preliminary Guidance. The College of Family Physicians of Canada,” 2014.

*3 D. Gieringer, J. St. Laurent, and S. Goodrich, “Cannabis Vaporizer Combines Efficient Delivery of THC with Effective Suppression of Pyrolytic Compounds,” *J. Cannabis Ther.*, vol. 4, no. 1, pp. 7–27, Feb. 2004.

*4 N. T. Van Dam and M. Earleywine, “Pulmonary function in cannabis users: Support for a clinical trial of the vaporizer,” *Int. J. Drug Policy*, vol. 21, no. 6, pp. 511–513, Nov. 2010.

*5 D. I. Abrams, H. P. Vizoso, S. B. Shade, C. Jay, M. E. Kelly, and N. L. Benowitz, “Vaporization as a Smokeless Cannabis Delivery System: A Pilot Study,” *Clin. Pharmacol. Ther.*, vol. 82, no. 5, pp. 572–578, Nov. 2007.



SAFETY: Cannabis has been used therapeutically for thousands of years, without significant reported side effects - until the modern period of prohibition.

Because of prohibition, the research has been heavily focused on the harms, which are now very well understood, and somewhat overstated. Set against this is emerging evidence of the benefits, which have been attested to since ancient times.



An ancient Chinese pharmacopeia, Shenong Ben Cao Jing, dated to 250CE or earlier, listed cannabis as a “noble herb” with benign side effects.

In cases where patients are consuming cannabis for therapeutic uses, this brochure is intended to help patients make informed decisions and optimise usage in the healthiest way possible.

ONSET OF EFFECTS: One of the unique properties of cannabis that makes it desirable for patients is that for many conditions there is a rapid onset of effects when inhaled. Short of intravenous drugs there is nothing that can ease pain as rapidly.

Counter to this, the lead time for consuming cannabis orally before feeling the effect is much longer and variable, depending on factors such as time of day and how full/empty the stomach already is. This has led to people dosing too highly, causing significant discomfort.



Start low, go slow!

For optimal dosing, the best method to follow is to ‘start low, go slow’; use a very small amount of cannabis, and wait to see if enough effect is achieved. It’s better to have too little, than too much.

For smoked/vaporised cannabis - this can be done with as little as a single inhalation initially and waiting 15-20 mins for maximum effect.

Sublingual/buccal absorption - the liver has the ability to process cannabinoids before they take effect therapeutically. To bypass this, cannabis liquids exposed to the area under the tongue, or in the side of the cheek, can be directly absorbed into the bloodstream for more rapid and efficient effect. For this reason, many patients try and hold oil in the mouth for a few minutes before swallowing.

Method of consumption	Inhaled	Sublingual	Oral
Onset on action (mins)	5 - 10	15 - 45	60 - 180
Peak effect (mins)	10 - 15	180 - 240	120 - 180
Duration of effect (mins)	120 - 240	360 - 480	360 - 480

IMPAIRMENT: Cannabis (more specifically THC - tetrahydrocannabinol) is well known to impair motor coordination, decision-making and memory. For this reason, it is generally considered unsafe to drive or operate heavy machinery while under the effects.

Despite this, compared to alcohol the impairment is much lower, and when used responsibly - as with prescription drugs - it may be safe to drive after a week or so once adjusted to the effects.

On its risks one study concluded:

“By and large, the increase in the risk of accident involvement associated with the use of drugs must be regarded as modest.”
 “Compared to the huge increase in accident risk associated with alcohol, as well as the high accident rate among young drivers, the increases in risk associated with the use of drugs are surprisingly small”. *1

Because of the subjective nature of impairment, and the data available being highly politicised, a Canadian organisation for family practitioners have made some general guidelines which, whilst conservative, ensure the safety of cannabis users and other road users. It suggests that users abstain from driving for:

- Four hours after inhalation.
- Six hours after oral ingestion.
- Eight hours after inhalation or oral ingestion if the patient experiences euphoria. *2

This is, however, in the context of high-THC products. Research has shown that balanced THC/CBD products are far less likely to cause significant impairment.

