

Vaporisation Guide

A vaporiser is a controlled delivery system for consistent cannabinoid extraction.

Vaporising dried flower through a vaporiser is the safest way to inhale cannabis flower, and is the only approved inhalation method by the TGA.

Vaporisation allows the patient to access THC, minor cannabinoids, and specific terpenes without combustion of the organic plant material.

Adjusting the temperature on a vaporiser allows patients to control the therapeutic effects based on access of terpenes, minor cannabinoids, and THC.

Healthcare professionals report patients use less flower to achieve effects due to significantly higher THC delivery efficiency, and preservation/access of terpenes and other minor cannabinoids.

Vaporisation vs. Smoking



Vaporisation

160-220 °C

33-54% THC Delivery Efficiency

Cooler, smoother vapour minimising airway irritation

Controlled delivery of terpenes

Controlled dosing/Microdose

Reduced toxic byproducts

Reduced Odour = dosing discretion

Smoking

232 °C +

10.4-12.8% THC Delivery Efficiency

Hot smoke
(potentially irritating respiratory system)

Terpenes may burn prior to bioavailability

Difficult to dose

Smoke contains dozens of potential toxic byproducts

Creates potent-smelling smoke

Cannabinoid Vaporisation Temperatures

CBG	126° F / 52° C
THCa	220° F / 104° C
CBDa	248° F / 120° C
Δ9THC	315° F / 157° C
Δ8THC	350° F / 177° C
CBD	356° F / 180° C
CBN	365° F / 185° C
THCv	428° F / 220° C
CBC	428° F / 220° C

Terpene Vaporisation Temperatures

Terpenes are water-soluble compounds, which may be accessed through the controlled temperature of a vaporiser.

Terpene	Vaporisation Point
Linalool	198 °C
Farnesene	125 °C
Terpinolene	185 °C
Terpineol	219 °C
Caryophyllene	160 °C
Limonene	176 °C
Myrcene	167 °C
Ocimene	66 °C
Humulene	106 °C
Pinene	156 °C

Vaporiser Instructions

Step 1

Mill/Grind Flower

- Weigh pre-determined flower dosage as recommended by healthcare practitioner.
- Place flower in grinder, and turn unit 4-6 times back and forth until flower is milled to a uniform consistency.

**A typical vaporiser chamber holds 0.10-0.15g milled flower.*

Step 2

Vaporiser operation

- Remove the mouthpiece/cooling unit as per the vaporiser instructions.
- Insert milled flower into the filling chamber.
- Pack the chamber while leaving some space.
- It is important to leave a little room for the vaporisation to occur/air to pass through. If packed too tightly, the vaporiser will not work effectively.
- Replace mouthpiece and switch on vaporiser.
- Select the appropriate temperature and wait for unit to reach that temperature before inhalation.

**Many practitioners recommend starting temperature can be 160°C to 180°C.*

Step 3

Begin the inhalation process

- Inhale slowly and evenly for 3-5 seconds (only to 50% of lung capacity)
- Hold breath for a 3-5 seconds.
- Slowly Exhale.
- This is considered one inhalation.

**vapor may not be visible under 180 degrees, though compounds are still being accessed.*

**If the amount of exhaled vapour declines, increase the*

temperature in 10'C increments.

**When no further vapor is exhaled at the max temperature of the vaporiser, the plant material has been depleted.*

Step 4

Titration

- Start with one inhalation
- Wait 15 to 30 minutes to assess effects.
- Increase by one inhalation every 15 to 30 minutes, until patient reaches goal of therapy.
- Optimal dose = fewest number of inhalations in a dosing session required to reach therapeutic goals.

Cannabinoid Availability

The systemic availability of vaporised cannabinoids from dried flower is approximately 33% while using a portable vaporiser (such as the Storz & Bickel Mighty Medic) or approximately 54% for a desktop version (Storz & Bickel Volcano used for reference).

Estimated bioavailability of cannabinoid content at a vaporisation temperature of 210 degrees, at **6-10 inhalations**:

Reference values for dried cannabis flower containing 250 mg/g (25%) THC through the Mighty Medic.

Dried Flower in Vaporiser	THC Content in Vaporiser	THC Content in Vapour	THC Content after Inhalation Process
0.10g	25mg	12.5mg	8.75mg
0.15g	37.5mg	18.75mg	13.13mg

Please contact Alfie Therapeutics with any questions:

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 **Alfie.**

