

TROUBLE

CANNATINE TX

DISCLAIMER: This document is for practitioners only. Indications and dosing recommendations are guidelines based on research. It is up to the healthcare practitioner to decide for their individual patient what is optimal.

INGREDIENTS

Methylene Blue USP: 5 mg
Nicotine USP: 1 mg
Caffeine USP: 50 mg
CBD: 5 mg

DELIVERY MECHANISM

The Buccal Troche: a small lozenge that dissolves between the upper cheek and gums. In contrast to a tablet or capsule, the ingredients are directly absorbed into the cheek mucosa for a more reliable and rapid onset of action, typically between 15 and 20 minutes.

Troches are scored for easy titration.

Although Blue Cannatine works best as a buccal troche, it can be swallowed on an empty stomach as well.

DOSING

Start dose of 1/4 to 1/2 troche

Maximum daily dose: 4 troches per day

If troche is swallowed, the dose may need to increase for desired effect.

INDICATIONS

Calibrated formula for:

- 1 Focus
- 2 Productivity
- 3 Verbal Fluidity
- 4 Exercise Performance
- 5 [Crush Jet Lag](#)
- 6 Balance/ Coordination

Practitioner indications:

- 1 ADHD
- 2 Digital Dementia
- 3 Perimenopause
- 4 Shift workers/ Pilots

****It may be possible to wean off of prescribed stimulants (slowly) with close practitioner supervision**



INTERACTIONS

- 1 SSRI and SNRI medications
- 2 Stimulant medications
- 3 Full list are linked below (per ingredient)

POSSIBLE SIDE EFFECTS

- 1 **Blue urine:** Methylene Blue concentrates in the urine. This is benign side effect.
- 2 **Blue tongue/ teeth:** Also benign, last 4 to 6 hours. [Here are some remedies](#) to help it go away faster if needed. Do NOT use if plastic veneers in place. Consult a dentist for any concerns
- 3 Stimulant-related: headache, nausea, dizziness, heart racing, GI distress, etc. These are rare if starting at a low dose and titrating to optimal dose.
- 4 **Numbness/ tingling of tongue or cheek:** due to peppermint in the formula. If it occurs, troches can be swallowed on an empty stomach.

CONTRAINDICATIONS

- 1 Pregnant or Breastfeeding
- 2 Not fit to take stimulants (sever cardiopulmonary disease)
- 3 Hepatic or renal impairment
- 4 Any known sensitivity to methylene blue or thiazine dyes, nicotine, caffeine, or CBD

MECHANISMS OF ACTION

- 1 **Methylene Blue:** See full information with references [here](#) (lay article) and [here](#) (PDR)
 - A. Mitochondria:
 - Increases ATP production (donates electrons to complex IV on ETC)
 - Increases antioxidant reserve (accepts electrons to neutralize ROS)
 - Increases NAD⁺ production via enhanced glycolysis and NADPH oxidation.
 - B. Mild MAOI → Increases serotonin, dopamine, and norepinephrine
 - C. Benefits include enhanced:
 - Energy
 - Endurance
 - Neuroprotection
 - Mood boosting
- 2 **Nicotine:** See full information with references [here](#) (lay article) and [here](#) (PDR)
 - A. Binds to nicotinic acetylcholine receptors, increasing dopamine, norepinephrine, and acetylcholine release.
 - B. Low-dose nicotine is well-studied in MCI and Alzheimer's. It is safe when not smoked or vaped and a total daily dose of <4 mg
 - C. Benefits include enhanced:
 - Focus and concentration
 - Learning
 - Verbal fluidity
 - Neuroprotection
 - Memory
 - D. Blue Cannatine uses just 1 mg of Nicotine in full troche (vs. 6 to 26 mg of Nicotine per cigarette and more in vaping products)



- 3 Caffeine:** See full information with references [here](#) (lay article) and [here](#) (PDR)
- Binds to adenosine receptors in the central and peripheral nervous systems, along with various other organs.
 - By binding to adenosine receptors, caffeine blocks adenosine from binding to A1 and A2A receptors (adenosine binding to these receptors promotes sleepiness and in A2A's case, blocks the release of dopamine).
 - Benefits include enhanced:
 - Attention and alertness
 - Reaction speed and accuracy
 - Coordination and judgment
 - Strength and endurance
 - Memory
 - There is 1/4 cup of coffee equivalent caffeine in a full Blue Cannatine troche
- 4 CBD:** See full information with references [here](#) (lay article) and [here](#) (PDR)
- Prevents the breakdown of FAAH (Fatty Acid Amine Hydrolase), an enzyme that breaks down Anandamide.
 - Anandamide binds to CB1 and CB2 receptors, it sends a message to calm down the firing neurons that stimulate its release in a process called retrograde signaling.
 - Blocks equilibrative nucleoside transport (ENT) leading to the direct enhancement of adenosine A1 receptors.
 - Activates the nuclear peroxisome proliferator-activated-receptor- γ (PPAR), a transcription factor that governs the expression of genes involved in inflammation, redox equilibrium, insulin sensitivity, and the metabolism of lipids and glucose.
 - Benefits include:
 - Reducing inflammation and pain
 - Decreasing anxiety
 - Improving sleep
 - Decreasing nausea and vomiting
 - Protecting the brain (neuroprotective)



INACTIVE INGREDIENTS

Inactive ingredients: Polyethylene Glycol (PEG), stevia extract, luo han extract, peppermint, silica, Bitter-Bloc™

1 Polyethylene Glycol: See full article [here](#)

- A. Suspends active ingredients in the buccal troche for slow release
- B. Very low dose (< 500 mg/troche)
- C. Not absorbed out of the GI system (fully excreted)
- D. Pharmaceutical grade and tested

2 Silica: Food Grade Silica. See more information [here](#)

3 Bitter Bloc: See more information [here](#)

- A. Non-GMO
- B. Preservative and Dye Free
- C. GRA Status/Organic
- D. Mushroom derived

4 Luo han: Monk Fruit

5 Stevia: Natural sweetener

6 Peppermint

