

MIGRAINE/HEADACHE



A migraine is classified as a 4–72-hour headache that is typically one-sided, pulsating, of moderate-to-severe intensity, and associated with sensitivity to light and sound.

Cluster headaches are often mistaken for migraines but are distinctly different. They are characterized by pain in the orbital, temporal, and/or supraorbital locations, [basically the face and front of the head] lasting up to three (3) hours and are typically triggered by an external stimulus (i.e. alcohol).

Migraines happen when Calcitonin-gene-related peptide (CGRP a potent vasodilator,) is released in the system of nerves and blood vessels in the face and head. This leads to a cascade of effects in the vasculature leading into the central compartments of the brain, causing a migraine's visual and auditory effects.

Migraine treatment is divided into acute and preventive therapy. Most legacy preventive therapies are repurposed psychiatric drugs that are ineffective and come with a host of side effects.

Cannabis has been used as a treatment for headaches for thousands of years, as seen in manuscripts from Assyria, Greece, and Persia. Notably, CB1 activation can stabilize mast cells, which release CGRP when degranulated, and this effect contributes to the anti-migraine action cannabis.

It is also known that activation of TRPV1 causes release of CGRP. While THC binds preferentially with CB1/CB2 receptors over TRPV1, at higher concentrations of THC, TRPV1 signaling takes over. As with many things Cannabis treats, a small amount is beneficial but large doses may exacerbate symptoms. Stay away from high dose THC for migraines.

This is also complicated because CBD causes 'functional antagonism' of TRPV1. It will depolarize the receptors which will cause release of additional CGRP, but it will also desensitize those receptors. CBD could potentially be a trigger for a migraine, especially in sensitive patients, but it would be appropriate as an acute therapy for a migraine already in progress.

In addition to the signaling reasons specific to a migraine, THC is good for reducing pain and inflammation in general, as well as having anti-nausea properties and it helps with short term sleep problems, all symptoms common with a migraine.

Cannabis has been studied in the clinic in small observational studies with largely positive results. It appears that cannabis isn't particularly effective on cluster headaches but is effective on a migraine and generalized headache.

TERPENE

Fast acting anti-inflammatory, pain-relief, sedation, anti-anxiety effects could all come into play here. BCP/Humulene for inflammation, Myrcene for its analgesic and sedative, and Linalool has both sedative and anti-anxiety effects.

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