



## Understanding and Managing Potential Side Effects of Cannabis

Whether you're a seasoned consumer or exploring cannabis for the first time, this guide breaks down common side effects and practical ways to manage or prevent them:

### Short-Term Memory Loss:

- Why it happens: THC changes the way the hippocampus processes information, which can affect the ability to form new memories. This change in information processing can also lead to poor judgment
- Ways to Prevent: Don't over consume, Use strains higher in Pinene and CBD for their neuroprotective benefit

### Slow Reaction Time:

- Why it happens: Changes in the cerebellum and basal ganglia cause alteration in balance, coordination, and reflex response. This can affect the ability to drive.
- Ways to Prevent: Don't over consume. "Low & Slow"

### Dry Mouth:

- Why it happens: Inhaling smoke of any kind dries out the nasal passages which are connected to the eyes causing the surface of the eyes to dry out
- Ways to Prevent: Hydrate, use cannabis forms other than smoking
- Ways to Manage: Use Artificial Saliva

### Dry Eyes:

- Why it happens: Cannabis molecules bind to the CB1 & CB2 receptors in the eye and saliva glands which then causes a decrease in saliva and tear production.
- Ways to Manage: Use Artificial Tears or Saliva

### Red Eyes:

- Why it happens: Cannabis causes an expansion of the blood vessels and the increase of blood flow to the eye causes the red eye effect.
- Ways to Manage: Use of OTC eye drops containing tetrahydrozoline. Consumption of chocolate, sodium, or caffeine.

### Paranoia/Anxiety:

- Why it happens: When the brain absorbs far more THC than usual, this causes an overstimulation of the amygdala causing fear and anxiety. The chances of anxiety or paranoia are more likely when we are concerned, think negatively about ourselves, or have disturbing shifts in our perception.
- Ways to Prevent: Consume less at a time, use strains with a higher CBD content
- Ways to Manage: Create a relaxing environment, alternate nostril breathing, consume a mixture of orange juice and pepper.



#### Hallucinations/Psychosis:

- Why it happens: Hallucinations, delusions, and a loss of the sense of personal identity can occur in people who have ingested large doses of marijuana. Risk factors include use at a young age, frequency of use, potency, genetics (AKT1, family history)
- Ways to Prevent: Consume less THC, try ratio products with higher CBD, go low and slow

#### Lightheadedness/Dizziness:

- Why it happens: While cannabis can initially increase heart rate and blood pressure, thoughts are the vasodilatory effects
- Ways to Prevent: Eat before you consume, consume less THC, change consumption method, go low and slow, consume while seated.

#### Headaches:

- Why it happens: Rebound headaches from cannabis can be caused by dehydration and overuse. Cannabis can cause the mucous membrane to become dry and increase the thickness of the mucous.
- Ways to Prevent: hydrate, titrate dose - "low & slow", take a tolerance break

#### Increased Heart Rate:

- Why it happens: Cannabis has complex effects on the cardiovascular system - increasing heart rate, dilating blood vessels, and making the heart pump harder. Smoking cannabis causes an immediate increase in heart rate and expansion of the blood vessels. (20-50 beats per minute)
- Ways to Prevent: Use non-smokable forms

#### Drowsiness:

- Why it happens: THC communicates with the cannabinoid receptors to increase adenosine which is involved in the sleep/wake cycle and can cause a feeling of sleepiness. Myrcene, a terpene found in cannabis, can add to the sedative effect while also enhancing the sedative effect from THC.
- Ways to Prevent: Indica strains are more drowsing, so look for Sativa or Hybrid strains or choose a strain with a CBD ratio to inhibit some of the mind effects.

#### Cannabinoid Hyperemesis Syndrome:

- A rare condition occurring in daily long-term users of marijuana that leads to repeated and severe bouts of vomiting, the cause is still unknown.
- Ways to Prevent: Take tolerance breaks, use cannabis responsibly
- Way to Manage: Hot shower/bath, Capsaicin cream applied to the sternum