



SEPTEMBER 2020 REPORT

SHORT-TERM SIDE EFFECTS OF MEDICAL CANNABIS USE


*"Introducing RYAH Data, our new data analytics report leveraging insights from our proprietary data lake."
- Gregory Wagner,
CEO, Ryah Medtech, Inc.*

THE QUESTION

Advocates frequently endorse medical cannabis for its low risk of short-term side effects and relative safety profile compared with pharmaceuticals.

What are the most common side effects, and what strains are they associated with in the RYAH Data ecosystem?

FOR MORE INFORMATION CONTACT

 205 East 42nd Street 14th floor
New York, NY 10017

 +1 917.210.0543

 info@ryah.com

 <https://ryah.com>
<https://ryahgroup.com/>

THE ANSWER

Between January 1, 2018, and September 23, 2020, 86,895 patients reported their strain preferences and associated side effects with RYAH Data.

Medical cannabis' reported side effects, include dry eyes, dry mouth, anxiety, paranoia, couch lock, distraction, and more.

Some strains trigger the onset of adverse effects more than others. Lemon Kush, Death Star OG, Royal Purple Kush, and Sunset Sherbet have notably high reports of side effects.

There were also differences between the sexes. For example, men and women report that entirely different strains cause paranoia.

INCREASED REPORTS OF SIDE EFFECTS

- LEMON KUSH
- DEATH STAR OG
- ROYAL PURPLE KUSH
- SUNSET SHERBERT

ANALYSIS

*Filtered in RYAH Data for strains with 10 side effect reviews or more

There is a stark lack of research on the side effects of medical cannabis, not related to a specific medical application (ex: pain relief) or among a specific demographic (ex: patients with panic disorder).

There is also a lack of information on side effects related to the whole cannabis flower compared with isolated cannabinoids and synthetic cannabinoids. Rates of side effects are typically higher for pharmaceutical preparations than whole flower.

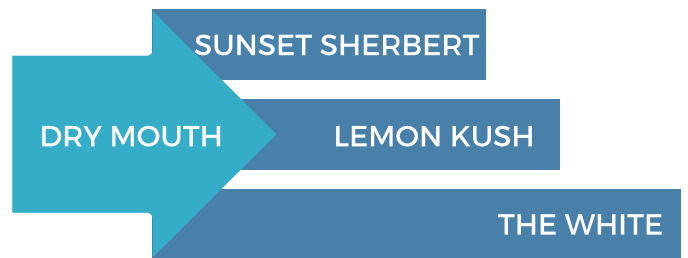
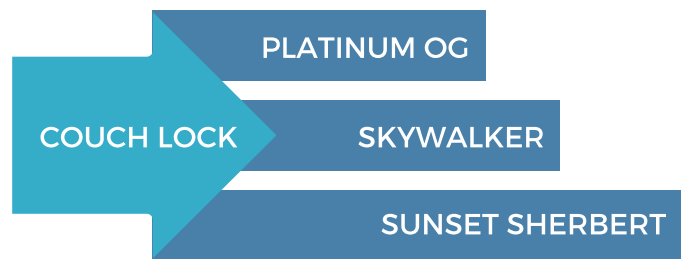
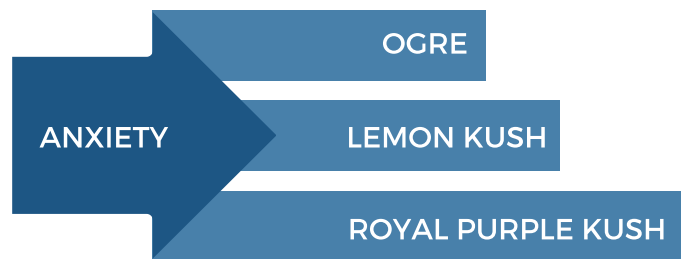
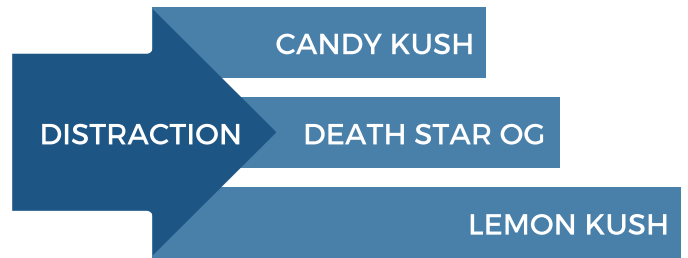
In a 2017 review of medical cannabis in cancer pain management, researchers compiled several common side effects:

- Drowsiness / sedation
- Slurred speech
- Blurred vision
- Dizziness
- Mental clouding
- Dry mouth
- Disorientation
- Nausea / vomiting

These were all related to isolated cannabinoids or synthetics. Often, there were no significant differences between the compound in question and a placebo. Also, the rate of adverse effects increased with dose size. [1]

SIDE EFFECT REPORTS

BY STRAIN*



ANALYSIS

There is almost no cross over between user reported Favorite Strains in RYAH Data and strains with the highest reported rates of side effects.

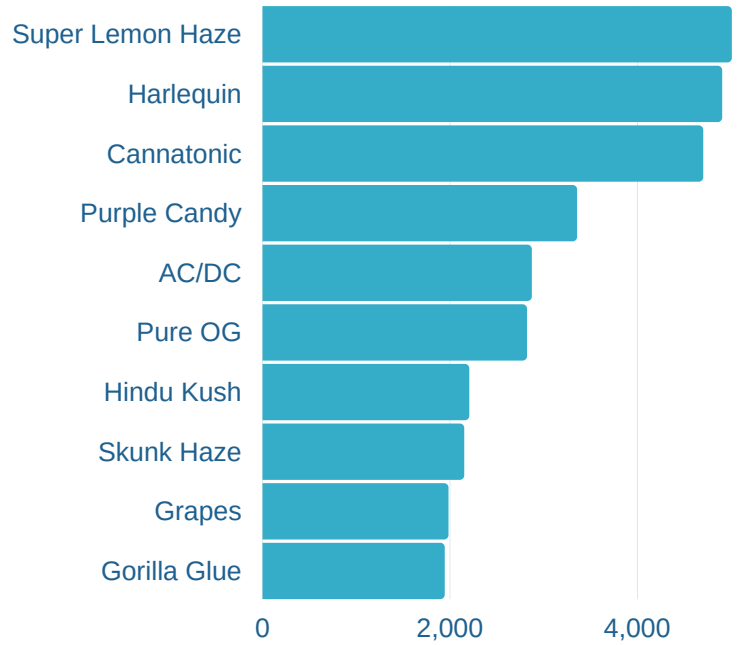
One exception is Gorilla Glue, which is the 10th most popular strain (1941, 2.25%), but women often report it triggers the onset of what is commonly called "couch lock." Men do not experience this same risk of couch lock with Gorilla Glue.

Research published in Cannabis and Cannabinoid Research in 2016 indicated experiential differences between the sexes with cannabis use. The study collected data from an anonymous online survey of cannabis users (n=2374). [2]

Men reported insomnia, vivid dreams, increased appetite, improved memory, enthusiasm, altered time perception, and increased musicality more frequently than women. Women reported loss of appetite, desire to clean, anxiety, and nausea more frequently than men.

This may help explain the differences between the sexes identified in RYAH Data when it came to side effects of specific strains.

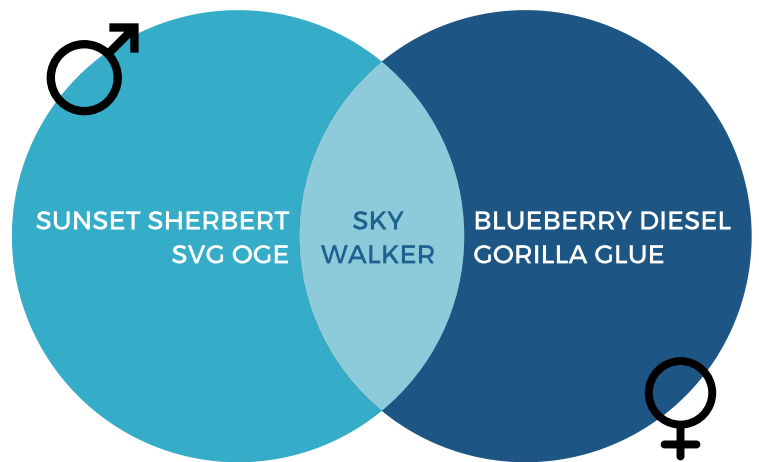
FAVORITE STRAINS



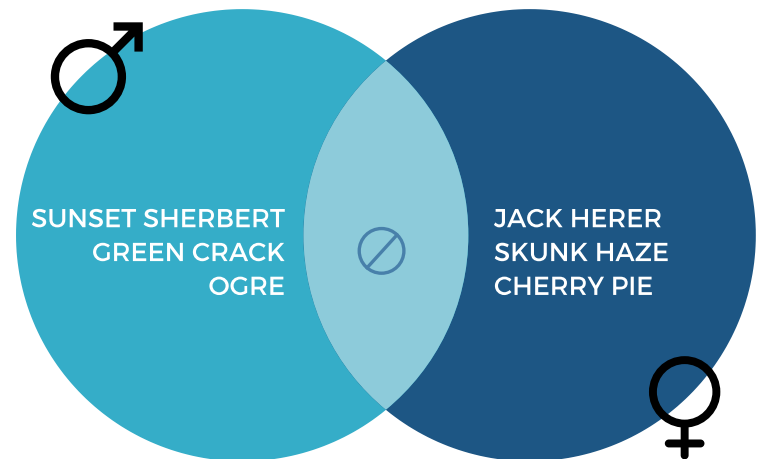
GENDER DIFFERENCES

BY STRAIN

COUCH LOCK



PARANOIA




ADDITIONAL SOURCES

(1) Blake, A., Wan, B. A., Malek, L., Deangelis, C., Diaz, P., Lao, N., . . . O'Hearn, S. (2017). A selective review of medical cannabis in cancer pain management. *Annals of Palliative Medicine*, 6(S2). doi:10.21037/apm.2017.08.05

(2) Cuttler, C., Mischley, L. K., & Sexton, M. (2016). Sex Differences in Cannabis Use and Effects: A Cross-Sectional Survey of Cannabis Users. *Cannabis and Cannabinoid Research*, 1(1), 166-175. doi:10.1089/can.2016.0010

FOR MORE INFORMATION CONTACT

 205 East 42nd Street 14th floor
New York NY 10017

 +1 917.210.0543

 info@ryah.com

 <https://ryah.com>