The effect of chronic cannabis use on visomotor and cognitive performance Ryan Cortez, Assel Al-Bayati, Raphael Gastrock, Bernard Marius 't Hart, Denise YP Henriques Centre for Vision Research, York University, Toronto, ON, Canada

The 2018 legalization of recreational cannabis use in Canada has increased interest in the impact of the substance on its users. It has provided us with the novel opportunity of researching its effects on a legal cohort of users outside of clinical settings. We designed an online battery of experiments to investigate the question of:



Task Switching

Participants responded to the shape or filling of a stimuli using the 'x' or 'm' keys in an alternating sequence depending on the stimuli location.



No deficits in task switching ability related to cannabis use frequency.

Are there deficits related to the frequency of cannabis use on visuomotor and cognitive performance?





No deficits in motor acuity related to cannabis use frequency.

Motor Acuity

Non-user: No prior usage Infrequent user: >once per 3 months & <once per week Frequent user: >once per week

*Participants were not instucted to withhold or consume cannabis during the experiment

Participants navigated their cursor through a tunnel (scaled to 40% -100% of the original size) as fast as possible while minimizing movement outside of the tunnel.

Goal Directed Movement Planning





No deficits in goal-directed movement planning related to cannabis use frequency.

frequency.

Our future work will focus on the effects of acute cannabis intoxication on visuomotor and cognitive performance.





There are no deficits in visuomotor and cognitive performance associated with cannabis use



