

# The Disruption of Nicotine Vapor With Medium Chain Triglycerides

Houck , Heidi (School: Transmountain Early College High School)

MCT oil was used to ease the created addiction. The experimental setup involved three groups, a control, nicotine, and MCT + nicotine. Over a week, both nicotine groups were treated once a day with menthol in a 3D printed chamber. MCT+nicotine group received an injection of medium chain triglycerides (MCT oil). From this, conditioned place preference (CPP) was demonstrated through mimicking the platform that the roaches were administered vapor. Conditioned place aversion (CPA) was demonstrated through menthol, a known deterrent to cockroaches. CPP data analysis showed nicotine treated roaches spent greater time than MCT+ nicotine and control roaches. This shows the MCT oil attenuated the addictive behavior.