



Submission to the Parliament of Western Australia

Select Committee into Cannabis and Hemp

January 7, 2022

It has come to our attention that the Cannabis and Hemp Select Committee is looking at ways in which they can better provide access to medical cannabis across the state, with a particular interest in how roadside impairment is tested. We at Hound Labs believe that our solution, the HOUND[®] MARIJUANA BREATHALYZER, may be of interest to you as you conduct your research.

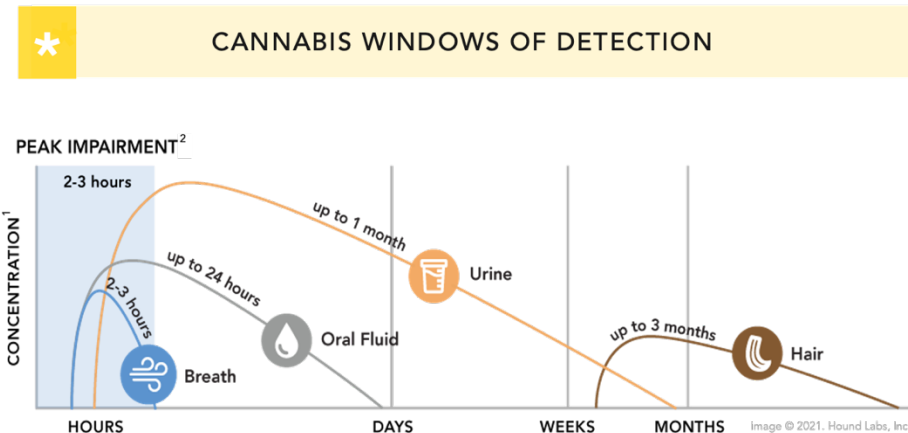
Research indicates that breath is the superior method of detecting THC during the window of peak impairment after cannabis use. THC degrades very quickly in breath to concentrations below 2 parts per trillion but remains detectable in breath for up to 3 hours after smoking cannabis. Beyond 3 hours, THC levels in breath drop to virtually undetectable levels.

The 3-hour time frame is significant because research has shown that this is when people are most likely to be impaired. Significantly more driving faults are committed directly after consumption, with research showing no significant increase of driving faults 3 hours after consumption¹. As can be seen on the graphic below, other cannabis tests – including urine, blood, oral fluid, and hair tests – detect previous use that is often well outside the window of peak impairment. A cannabis breathalyzer, however, is an objective test for determining whether a person used cannabis recently and could still be impaired.

¹ <https://pubmed.ncbi.nlm.nih.gov/30701315/>

WINDOWS OF DETECTION: RECENT USE MATTERS

The window of detection using breath is far superior to other specimen when determining the window of impairment.



The HOUND MARIJUANA BREATHALYZER works by automatically collecting a breath sample within a tamper-evident cartridge that can be immediately processed on location. Technology within the cartridge simultaneously collects and retains a portion of the sample that can be tested later at a lab. The technology is ultra-sensitive, measuring in parts per trillion. (For comparison, it is approximately 1 billion times more sensitive than an alcohol breathalyzer, which measures in parts per thousand.) Our solution was designed specifically to measure the psychoactive ingredient in cannabis and measures delta-9-THC and delta-8-THC. The University of California, San Francisco (UCSF) has conducted clinical studies using Hound Labs' technology, and initial studies show an accuracy of 95% within 3 hours of smoking cannabis.

We are pleased to submit this brief background document as a starting point for your review of a technology that could assist your government. When appropriate, we would be pleased to further discuss our technology and its utility in helping law enforcement keep your roads safe in the era of cannabis legalization.