10 Facts to Know about Cannabis and Human Milk

1. The estimated infant dose of THC\textsuperscript{a} ingested via human milk has been calculated to be “1000 times lower than the adult dose”\textsuperscript{1} or a RID of 2.5\%\textsuperscript{2}. The bioavailability of THC when consumed by mouth is between 1-5\%\textsuperscript{3,4}, which plays a significant role in reducing the THC exposure to a nursing infant.

2. The psychoactive molecule THC passes into human milk\textsuperscript{1,4,5}, as do 11-OH-THC\textsuperscript{b} and CBD\textsuperscript{c}. COOH-THC\textsuperscript{d} and CBN\textsuperscript{e} have not been detected in human milk.

3. THC is metabolized into other molecules in a predictable way in human milk. The shape of this metabolic curve is very consistent between individuals\textsuperscript{2}.

4. Peak THC levels in human milk generally occur between 60 and 120 minutes after use\textsuperscript{1,2}.

5. The peak level of THC detected after cannabis inhalation varies dramatically between individuals\textsuperscript{1,2}. Though this makes it hard to know what any individual infant may be exposed to, we do know that it will be 100-1000 times less than the peak level detected in the adult.

6. In daily users, the half-life of THC in breastmilk is about 1d\textsuperscript{1,2}.

7. THC detection and metabolism in human milk appears to vary dramatically between those who consume cannabis daily and more occasional users. Clinical advice should distinguish between these two types of users in both perspective and advice.

8. Detection of THC in human milk more than 24 hours after cannabis consumption appears to be related to two factors: a) the time since last use (the more hours pass between consumption and detection, the less THC is detected) and b) the regularity of cannabis consumption (THC is detected at higher levels for longer periods of time in folks who consume cannabis near-daily or daily)\textsuperscript{1,2}.

9. There are no data that clearly show that exposure to cannabis through human milk negatively impacts infant or child development. (Note: the absence of a known risk is not the same as confirmation of safety. It is important to remember that, in general, pregnant and postpartum people are excluded from drug trials. Confirmation of safety is rare in these individuals and even commonplace perinatal medications have not been confirmed safe\textsuperscript{7}.)

10. The perinatal environment plays a demonstrable role in a child’s development\textsuperscript{8-10}. It is hard to separate the impact of social determinants of health from perinatal substance exposure.

\textsuperscript{a} THC = tetrahydrocannabinol, the primary psychoactive molecule in cannabis
\textsuperscript{b} 11-OH-THC = hydroxyl-THC, a psychoactive molecule resulting from the metabolism of THC
\textsuperscript{c} CBD = cannabidiol, a non-psychoactive molecule derived from cannabis
\textsuperscript{d} COOH-THC = carboxy-THC, a non-psychoactive molecule that is the result of THC metabolism and is used in the detection of cannabis exposure
\textsuperscript{e} CBN = cannabinol, a non-psychoactive molecule derived from cannabis

© 2018 For more information, please contact Heather Thompson, MS, PhD at heather@elephantcircle.org