### MARIJUANA USE AND DAMAGE TO HUMAN REPRODUCTION

# By David G. Evans, Esq. \* CIVEL

Research shows that infants exposed to THC before birth suffer a wide array of neurocognitive and neurobehavioral deficits that cascade throughout childhood and adolescence, resulting in adverse social, health and economic consequences. Prenatal marijuana use has been linked with:

- 1. Impairing fetal neurodevelopment.
- 2. Risk for miscarriage increases if marijuana is used early in pregnancy.
- 3. Developmental and hyperactivity disorders in children.
- 4. Low birth weight
- 5. Premature birth
- 6. Greater risk of stillbirth
- 7. Learning deficits
- 8. Altered responses to visual stimuli, increased trembling, and a high-pitched cry
- 9. Children have gaps in problem-solving skills, memory, and the ability to remain attentive.
- 10. Increased likelihood of a person using marijuana as a young adult, even when other factors that influence drug use are considered.
  - 11. Decreased motor development.
- 12. The American Medical Association has warned marijuana use may be linked with low birth weight, premature birth, behavioral and other problems in young children.
  - 13. Childhood attention problems and lower scores on problem-solving measures.
  - 14. Birth defects
  - 15. Childhood cancer.
- 16. Reproductive toxicity in early gestation and have been found to affect spermatogenesis which is the process of the formation of male gamete including meiosis and formation of sperm cells
  - 17. Anemia [1]

# Use of marijuana by pregnant women is on the rise

Marijuana has been touted by some in the marijuana industry as a "medicine" for the nausea or morning sickness connected to pregnancy and some women are using it in the first trimester of their pregnancy which is the period of greatest risk to the fetus. There is a general increase in marijuana use among pregnant females due to the increasingly permissive legal landscape regarding marijuana. [2]

# Damage to the child's heart

The first trimester during which morning sickness most often occurs is the trimester during which the fetus is most vulnerable to developmental malformations. For example, Colorado has a continued rise in a category of heart Ventricular Septal Defects (VSDs) that is included as one suspected outcomes of marijuana use during pregnancy. There was shown to be 2-fold increase in risk of isolated simple VSDs for maternal self reported marijuana use. In addition,

marijuana use has been shown to be a factor in Ebstein's Anomaly a heart defect in which the tricuspid valve, the valve between the upper right chamber (right atrium) and the lower right chamber (right ventricle) of the heart, doesn't work properly. [3]

#### Other research

- 1. Prenatal marijuana exposure can set a person up for later marijuana addiction and other addictions as well. [4]
- 2. The association of marijuana with **impaired foetal growth** is accepted by leading authorities. [5]
  - 3. There is a risk of **congenital inherited cancers**. [6]
  - 4. There is the risk of damage from synthetic cannabinoids. [7] This epigenetic toxicological

effect has also been verified for synthetic cannabinoids.

5. Testicular cancers - there is an association of marijuana use and the incidence of testicular

germ cell tumors. [8]

- 6. There is an association with marijuana use and sperm toxic effect. [9]
- 7. In one study of dispensaries, nonmedical staff at marijuana dispensaries were recommending marijuana to pregnant women for nausea. Medical experts warn against it. [10]
- 8. An article in <u>Modern Health Care</u> states that a recent study shows that if a nursing woman uses marijuana, her baby through her breast milk, will consume traces of THC for at least six weeks and possibly longer. **Prenatal exposure to THC can effect the child's neurobehavior and child development up through the teen years**. [11]

### \* About the author

David G. Evans, Esq., is Senior Counsel for the Cannabis Industry Victims Educating Litigators (CIVEL) who educate lawyers on how to make the marijuana industry accountable to their many victims. Mr. Evans was a plaintiff's litigator in personal injury and employment law cases. Attorneys who desire more information can contact Mr. Evans at seniorcounsel@civel.org. The CIVEL website is: <a href="www.civel.org">www.civel.org</a>

Before opening up his law practice in 1992, he was a Research Scientist in the Data Analysis and Epidemiology Services Unit, Division of Alcoholism and Drug Abuse, New Jersey Department of Health. He analyzed legal and regulatory requirements regarding: drug and alcohol abuse, research and data collection, courts, criminal justice, domestic violence, drug-free workplaces, juveniles, confidentiality, treatment, drug testing, AIDS, drug use forecasting, and discrimination.

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