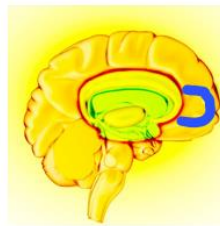


THC in Marijuana vs the Endocannabinoid (EC) System

THC, tetrahydrocannabinol, is similar to the body's own endocannabinoids. But the **body's EC system** is responsible for **fine tuning cell by cell, neuron by neuron, as needed**, while **THC from outside** the body goes to cells **throughout the body, blocking the fine tuning** of neuron development and communication.

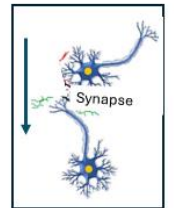
Before birth, the body's own endocannabinoid system is involved with:

- Regulating neuron** localization, specialization and connections in important brain regions, while **250,000 – 500,000 new neurons are being created each minute!**
- Regulating blood vessel development in the **placenta.**



From birth to old age, a major role of the endocannabinoid system is

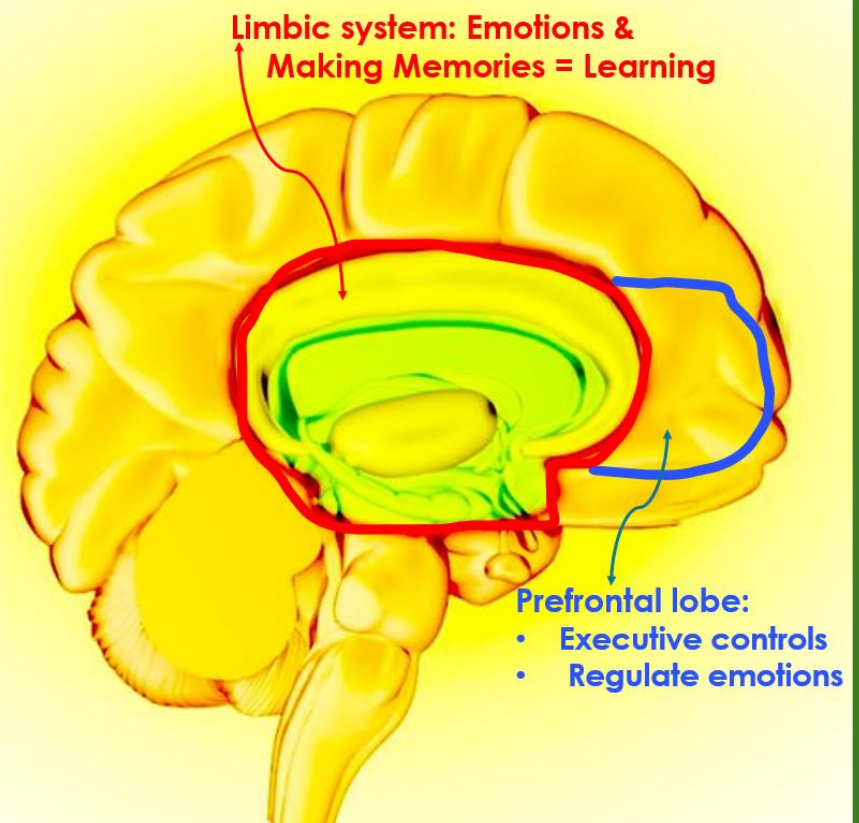
- Regulating nerve-to-nerve messaging.



In the prenatal **brain** endocannabinoid receptors are directing neurons in the *Limbic system* and the *Prefrontal lobe*

Marijuana exposure of the fetal brain messes up neuron **localization, differentiation and connections** these brain centers.

- This can cause **life-long problems** with **learning**, with **emotions** and with **self-regulation** of behavior, focus, & emotions.
- It also increases the risk of developing **psychosis.**



Fetal exposure to marijuana (THC):



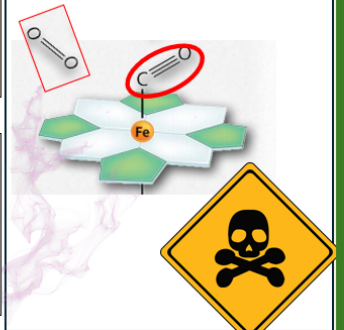
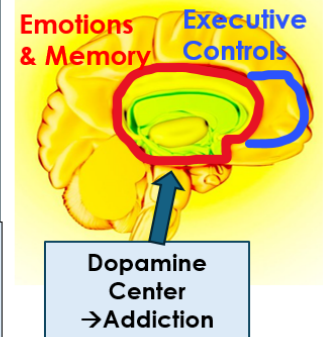
1. **THC** can cause **lifelong** problems with **learning & self-regulation**, & increases the risk of developing **psychosis**.

2. **THC** alters the wiring and the regulating genes for the brain's dopamine center, increasing the risk of **addiction** in adolescence & adulthood.

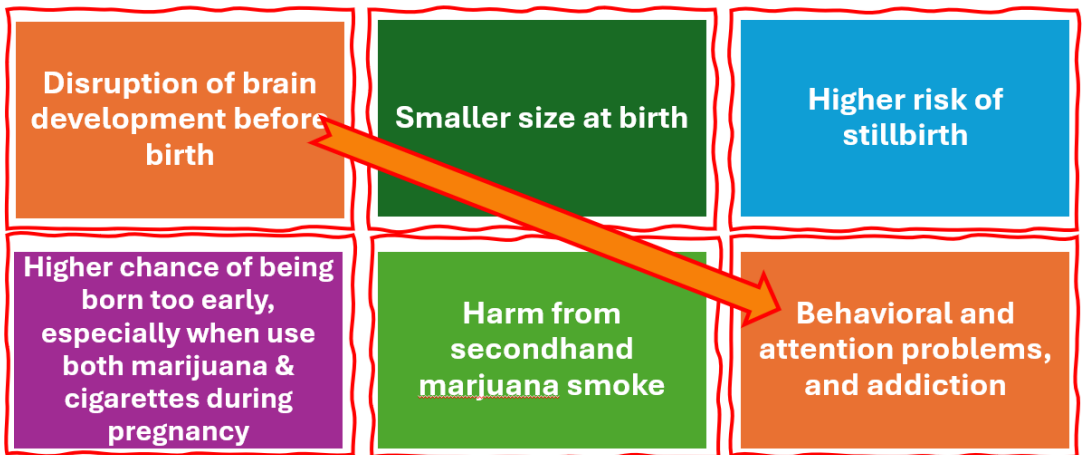
3. **THC** disturbs development of the placenta's blood vessels, depriving the fetus of adequate nutrients & oxygen & undermining metabolic fetal support. **Slow growth &/or premature birth** may result, and perhaps even **fetal death**.

Marijuana smoke has:

- a) **Carbon monoxide**, which reduces oxygen transport. This can slow and damage brain development.
- b) **Toxic contaminants**, which can damage cells and cause cancer, harming health **before and after birth**.



Outcomes of prenatal exposure to marijuana.



To prevent damage to the unborn, when does marijuana (or alcohol or any other psychoactive drug) need to be stopped?

Best: Not use any month in which a woman might be sexually active.

Stop using any marijuana if
 1) The period is 2 days late OR
 2) A pregnancy test is positive –
 Whichever comes first!



Don't resume until return of regular menstruation or baby has arrived AND is no longer breastfeeding



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