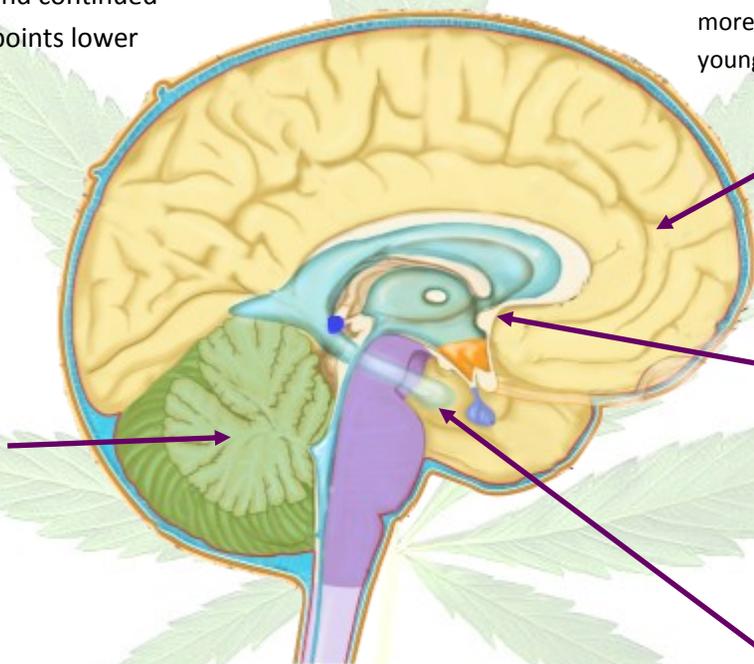


Not Just IQ: Marijuana Changes the Brain

Marijuana is the most commonly used illicit drug in the U.S. with approximately 15.2 million users¹. Marijuana's active ingredient, delta-9-tetrahydrocannabinol or **THC**, affects many areas of the user's brain due to the high numbers of cannabinoid (CB) receptors. THC content is considerably higher in marijuana today compared to the marijuana of the 1990s¹. Areas of the brain where structural and functional changes have occurred due to marijuana use are highlighted in the figure below.

Mental blocks: Learning new information and memory can be impaired by THC. Teenagers found to be dependent on marijuana before age 18 and continued use into adulthood had an average IQ 8 points lower than non-users by their late thirties².

Off-balance: Marijuana users show decreased activation of the cerebellum, an area of the brain associated with motor control and coordination, compared to non-users⁴.



Impaired critical thinking: Complex thinking, judgment, and sensations can be negatively affected by THC. Decision-making and motivation areas of the brain can be adversely affected, with more pronounced effects in those who started at a young age³.

Hijacked reward center: Marijuana, like many other addictive drugs, can alter the reward pathway circuitry of the brain, and users may be more prone to depression, anxiety, irritability, and increased sensitivity to stress¹.

Panic attack: THC can increase feelings of panic, paranoia, and psychosis³.

References:

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