



## SUBSTANCES AND THE ADOLESCENT BRAIN

Adolescence is a pivotal time for brain development. Alcohol and marijuana impact the development of the adolescent brain in many ways.



### ALCOHOL

According to research, drinking alcohol while the brain is still developing could inhibit or alter the growth process, leaving youth with irreversible brain damage.

Queensland Health, 4/20/17

Heavy and frequent adolescent drinking can impact the size and growth of the hippocampus, which plays a pivotal role in adolescent brain function- impacting learning and short-term memories.

Queensland Health, 4/20/17

### MARIJUANA

Using marijuana before age 18 may affect how the brain builds connections for functions like attention, memory, and learning and may last a long time or even be permanent.

CDC, 10/19/20

One study found that adults with marijuana use disorder, who began frequent use as adolescents, had lost an average of 6-8 IQ points. Quitting didn't recover IQ points.

NIDA, 4/13/21

Driving under the influence (DUI) laws are not just for alcohol. Marijuana use can impair important skills required for safe driving by:

- slowing reaction time and ability to make decisions
- impairing coordination
- distorting perception

CDC, 10/19/20

