THE EFFECTS OF ALCOHOL ON THE TEENAGE BRAIN

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Judgment

The prefrontal cortex-often called the control center of the brain-is responsible for judgment, behavior and impulse control. Even low levels of alcohol have a negative impact on planning, organizing, managing time and paying attention.¹

Prefrontal Cortex



The hippocampus is key for memory and learning. Alcohol can block an important receptor responsible for processing and storing memories-an effect that's more pronounced in adolescents than in adults with fully developed brains.²



Consciousness

The cerebral cortex is where higher brain functions (language, memory, consciousness) occur. Teen brains can be less reactive than adult brains to signals that it's time to stop drinking, and more susceptible to dangerous behaviors like binge drinking.³



Cerebellum

Hippocampus

Hypothalamus

Medulla



The hypothalamus releases hormones as a way to manage emotions and impulses. Alcohol suppresses normal hormonal responses to stress in adolescents; heavy drinking may lead to life-long changes in how this system responds to stress.⁴





The medulla controls vital functions such as breathing and the beating of the heart. When a person has been drinking heavily, it's possible for these functions to slow down or even stop completely.⁵ **The cerebellum** controls balance and muscle coordination. Drinking alcohol inhibits motor function and slows reaction time-which is why it's so difficult and dangerous to drive after drinking.⁶



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