

Mission Control

Understanding the Brain's Central Control System

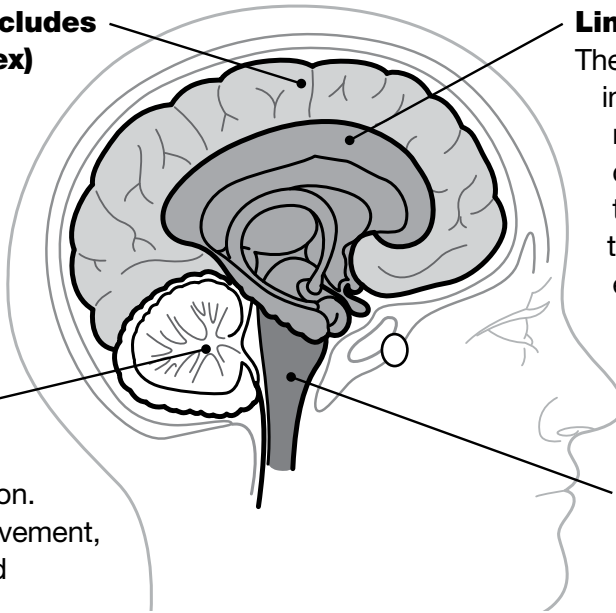
Study the information and diagram on this page, as well as the information from the article "Drugs + Your Brain." Then read the health effects caused by drug abuse (below the illustration), and write the name of the brain area involved in creating the health effect.

Cerebral Cortex (includes the prefrontal cortex)

Allows us to be aware of, pay attention to, and respond to our surroundings. Powers the ability to think, plan, solve problems, and make decisions.

Cerebellum

The center for motor control and coordination. Controls muscular movement, as well as balance and posture.



Limbic System

The collection of structures involved in emotion, motivation, memory, and other functions critical to survival. It includes the hippocampus (memory), the amygdala (fear and other emotions), the ventral striatum (reward), the hypothalamus (appetite, thirst, body temperature), and parts of the cortex.

Brain Stem

Controls basic functions critical to life: heart rate, breathing, sleeping.

1. Abusing prescription painkillers or sedatives can slow and stop breathing: _____
2. Many parts of the brain are affected over time with repeated drug use, leading to addiction.
Name two: _____
3. Steroids and methamphetamine can lead to aggressive behavior: _____
4. Marijuana and alcohol can affect coordination and movement: _____
5. Combining sedatives with alcohol can slow the heart rate: _____
6. Marijuana impairs the ability to think clearly: _____

Think It Through: The cerebral cortex does not fully develop until a person is about 25 years of age. Why is this important for teens to know when it comes to decisions involving drugs? Explain your reasoning.