

BRAIN FACTS

The adolescent brain is **resilient!** Though vulnerable as it goes through many changes, experiences during this time can protect future healthy development!

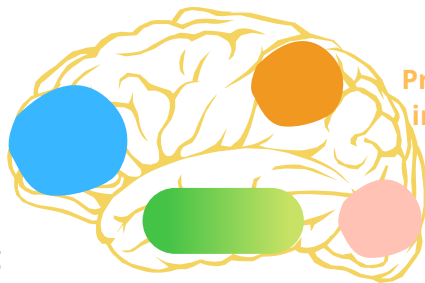
The prefrontal cortex is one of the last regions to form. It is responsible for **planning and decision making**. Meanwhile the amygdala forms earlier on and is responsible for **emotions and fear-related, reactionary behaviors**. The difference in when they form and what they are responsible for is what leads to adolescents' natural interest in testing boundaries!

Myelin is the fatty tissue that insulates axons in cells. As myelin forms, communication between cells in the brain becomes even faster.

Challenging academics or mental activities, exercise, and creative activity can help the brain mature and learn.

Synaptic Pruning: During the teenage years, extra synapses are "pruned" or eliminated, making your brain more focused in on its environment and removing connections that are no longer needed.

Frontal Lobe
Executive functions, like planning, reasoning, and decision making



Temporal Lobe
Includes the *hippocampus* for long term memory and the *amygdala* for emotion processing

Parietal Lobe
Processes sensory input, including numbers and language

Occipital Lobe
Processes visual information

The brain reaches its largest size in adolescence!

The teenage brain needs more sleep! Melatonin, the sleep hormone, is highest later at night and drops later in the morning in teens. Since more sleep is already needed for all the growth that is occurring, this also contributes to why you may be feeling tired later in the night and sleeping later in the morning (or afternoon!)

Adolescence is a **sensitive period** where the brain goes through many changes, including with heightened information processing, growing social sensitivity, and increased social awareness. These changes are reflected in wanting to explore, forming new relationships, and forging steps to navigate our world!

Learn more at <https://abcdstudy.org/publications/>

