

# Development of the Teenage Brain

~Teenage behavior makes sense because the human brain develops from the bottom up, and from the back to the front

## Adolescent Thinking Patterns

Drawn toward risk-taking behavior  
Can't see long-term consequences  
Influenced by emotions  
Sensation-seeking  
Impulsive - act before thinking  
Invincibility - "Not me!"  
High importance of/to peers  
Ego-centric and self-focused  
Difficulty seeing the perspective of others

## Prefrontal Cortex

### UNDER CONSTRUCTION!

Logic  
Impulse-control  
Executive functioning  
Critical thinking  
Learning from mistakes  
Thinking before acting  
Perspective-taking  
Learning new skills  
\*Develops last  
\*Strengthens until mid-20's

## Nucleus Accumbens

Reward center  
Pleasure and gratification  
Risk-taking  
\*Influenced by emotion  
\*Reacts before the Prefrontal Cortex

## Amygdala

Detects emotions  
Detects fear/danger  
Prepares for survival  
Reacts to stress  
Stores memories of emotions

## Hypothalamus

Releases hormones  
Connected to pituitary gland

## The Emotional Brain

AKA the Limbic System  
Behavioral responses  
Emotional responses  
Influences hormones  
Regulates nervous system

## Supportive Adults

Encourage critical thinking  
Show empathy  
Show concern  
Stay calm  
Connect feelings ➡ actions ➡ consequences  
Avoid lectures and criticisms  
Respond consistently  
Teach learning how to think before acting  
Increase ability to handle stress  
Encourage involvement in activities  
Create opportunities to grow their PFC