

Montana 4-H Congress
Friday 7/15/22

Treat Your Brain Like the Incredible Asset It Is!

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Welcome!

Let's start with some trivia

- For each statement, decide whether it is **TRUE/FACT** or **FALSE/MYTH** and use your thumb sign to show your answer

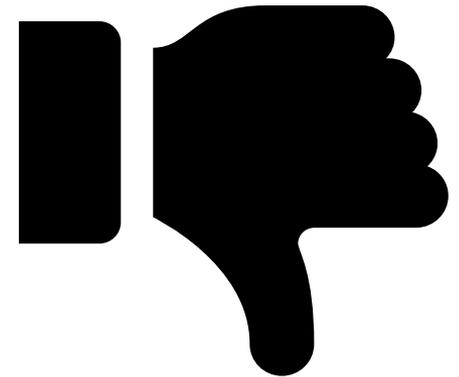
 = **TRUE/FACT**

 = **FALSE/MYTH**



Trivia Q#1

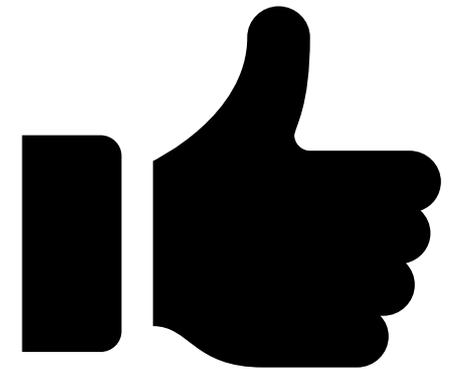
The brain of a typical *18-year-old* processes information the same way as the brain of a typical *40-year-old* when it comes to **decision-making**





Trivia Q#2

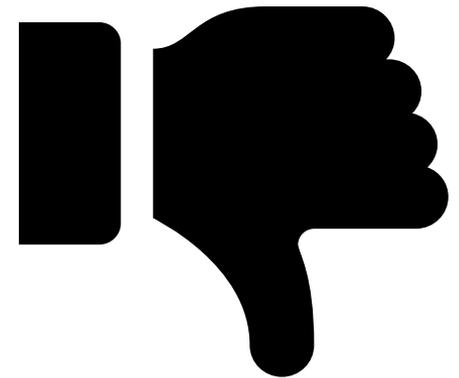
Among high school students in Montana in 2021, almost **1 in 4** were offered, sold or given an **illegal drug** on school property.





Trivia Q#3

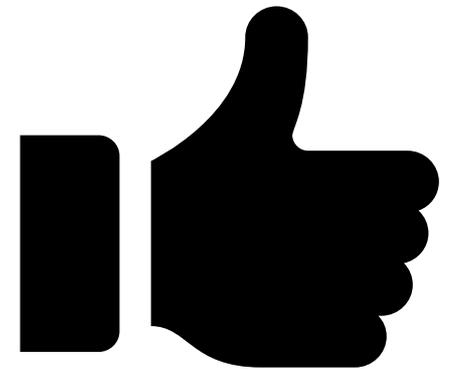
Only certain types of people develop an **addiction**.





Trivia Q#4

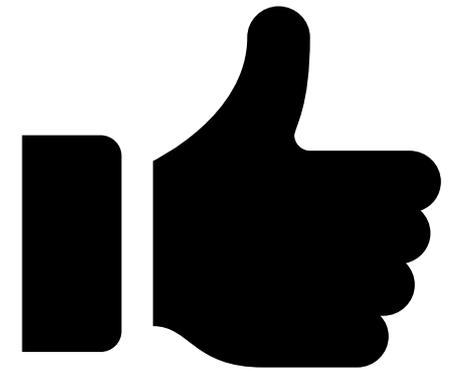
Anyone can develop an **addiction** .





Trivia Q#5

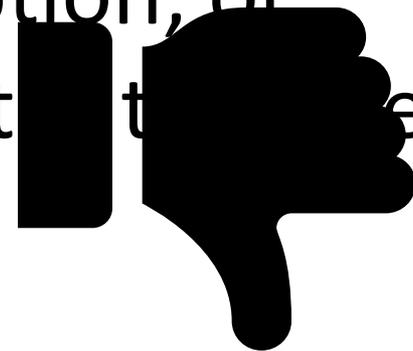
Someone who starts taking an addictive drug at the age of **16** is more likely to become addicted than someone who starts taking it at the age of **21**.





Trivia Q#6

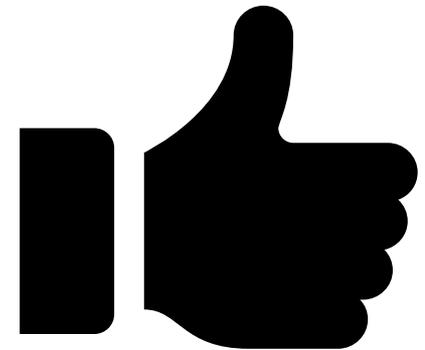
- Among high school students in Montana in 2021, almost *half* said that at some point in their lives they had taken a **prescription pain medication** without a doctor's prescription, or differently than how a doctor told them to use it.





Trivia Q#7

- Participation in **structured extracurricular activities** reduces risk of experiencing a substance use problem.





Trivia Q#8

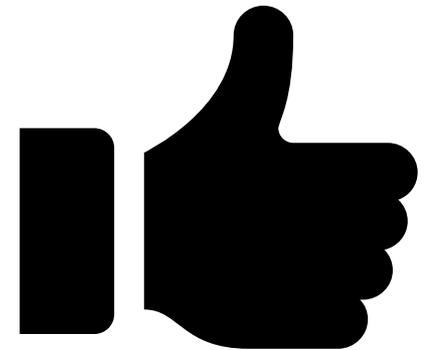
The *teen brain* is **more sensitive** to rewards and enjoyable experiences than the *adult brain*.





Trivia Q#9

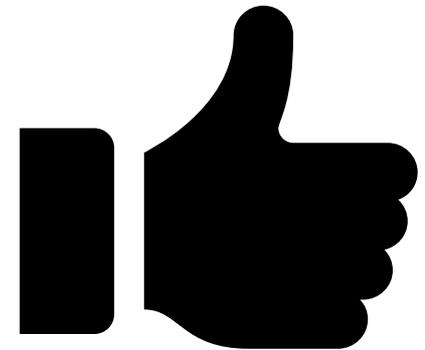
Having a **family history** of drug addiction increases an individual's risk of experiencing drug use problems.





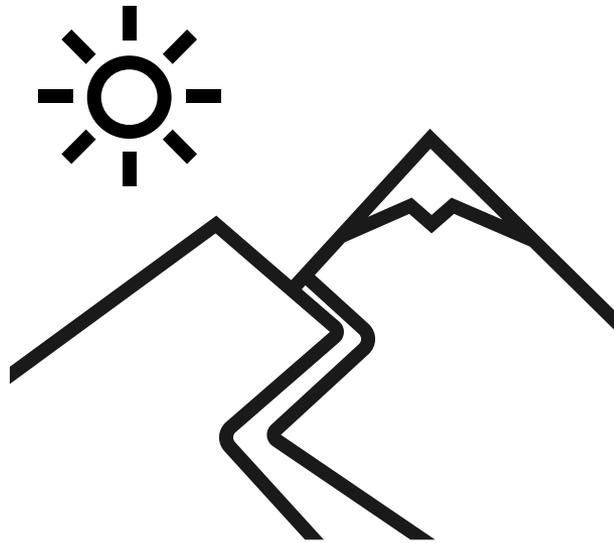
Trivia Q#10

- Regularly practicing several different **coping strategies** reduces a person's risk of experiencing drug addiction





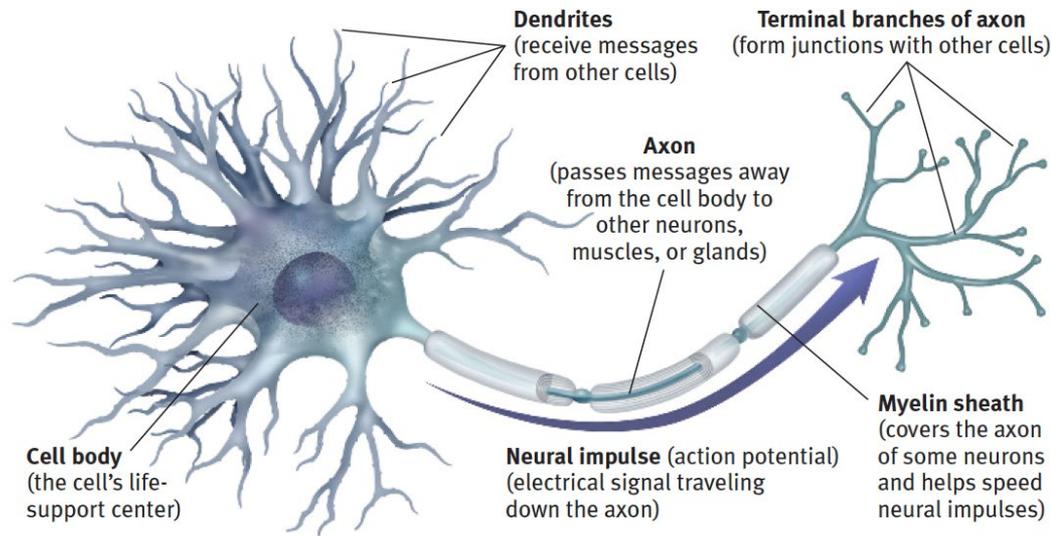
Workshop Roadmap



- The Teenage Brain
- Science of Addiction
- Rx Opioid & Rx Stimulant Misuse
- Discussion: Reasons for Use and Healthy Alternatives
- Tell Us Your Thoughts!

The Teen Brain

Anatomy of a Neuron (Brain Cell)

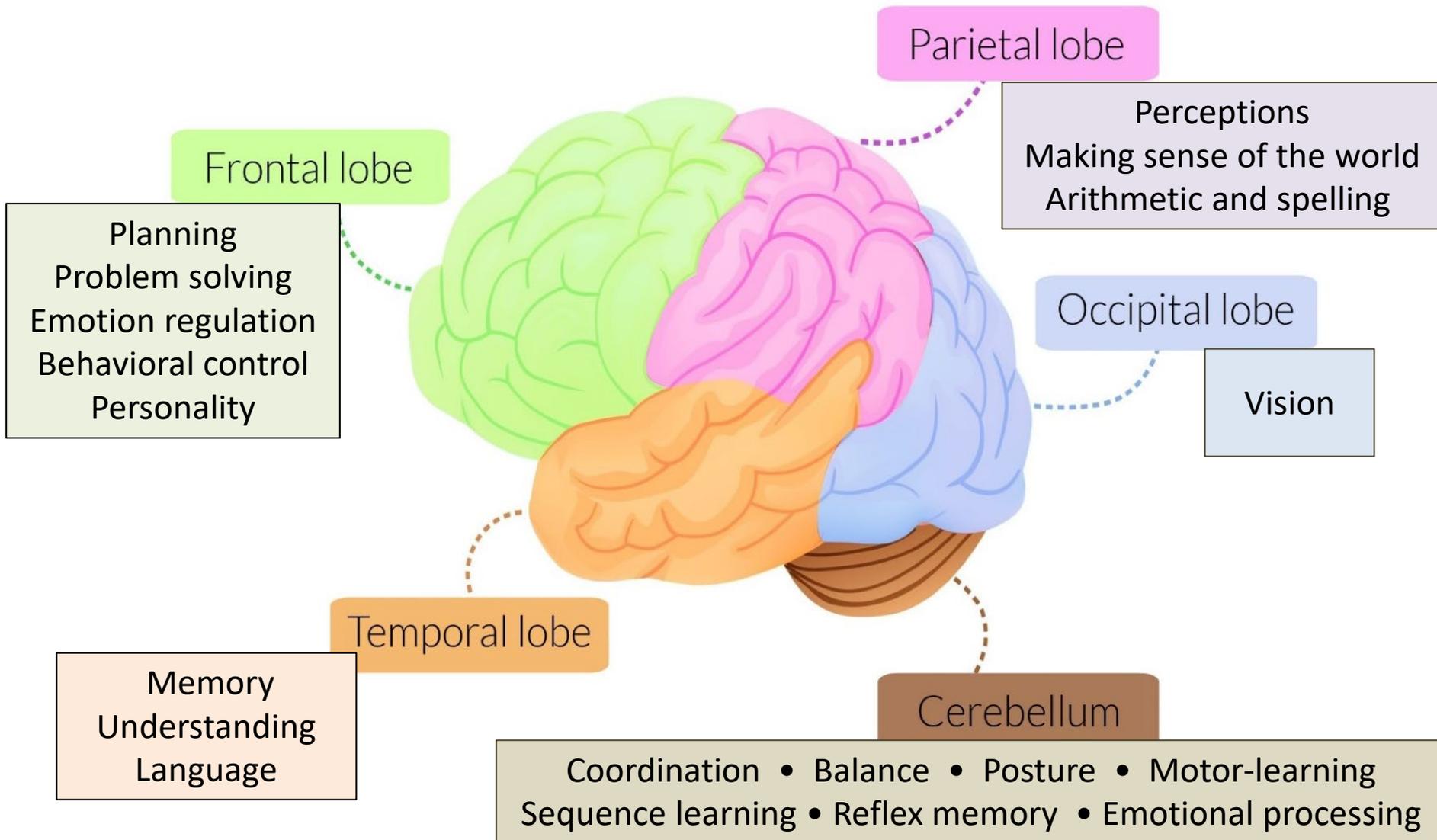


Myers, D., & Dewall, C. N. (2015). *Psychology* (11th ed.). Worth Publishers: New York.

- Massive increase in connections between neurons, followed by selective **pruning** based on experience
- Increased speed of signaling between neurons

- **Plasticity**

Changes to Brain Regions



How Brain Changes Affect Your Thoughts, Feelings and Actions

Sensitive to social environment

Creativity and imagination

Strong emotions, can shift quickly

Reliance on intuition/gut feelings

Primed for learning

Curiosity, drive for excitement and novelty



Addiction and the Brain





Risk and Protective Factors

Risk Factors

Increase the chances of experiencing substance use problems

Examples:

- **Developmental vulnerability**
- Drugs are widely available at home or in the neighborhood
- Lack of adult supervision
- Family history of substance use problems
- Mental health challenges (such as depression or anxiety)

Protective Factors

Reduce risk; act as a shield against risk factors

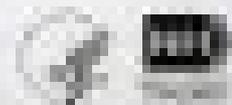
Examples:

- Anti-drug use policies at school
- **Participation in structured extracurricular activities**
- Practicing multiple coping strategies (exercise, humor, breathing, music, etc.)
- **Having at least one caring, supportive adult mentor**

Mind Matters: Opioids

What are opioids?

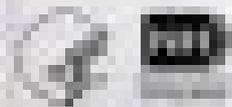
If people follow their doctor's instructions and take the right amount of medicine, opioids can help their pain go away.





Mind Matters: Prescription Stimulants

Prescription stimulants are a type of medicine that doctors give people to help them with attention deficit hyperactivity disorders (ADHD) or certain sleep problems.





Discussion: Reasons for Misuse and Healthy Alternatives

Identify:

Working in your groups, think of reasons MT teens might misuse Rx medications and write each reason on its own sticky note.

Categorize:

Classify each reason into one of the four categories, then send one group member to place the sticky notes on the posters.

Consider Alternatives:

For each of the four specific reasons selected by the facilitator, identify a healthy way to accomplish that goal or get that need met.

Explore Barriers and Possible Solutions:

Finally, for each of the four alternatives you identified, think of potential barriers that would make it hard to take this action.

What are some ways to eliminate or reduce these barriers?



Thank You For Attending Today

Before you go...

We Want Your Input!