

# Marijuana and the Brain

# The Science of Marijuana



What's the difference  
between your brain &  
your parents brain?



Marijuana can impact  
your brain

The Science of  
Marijuana

Marijuana  
can get in the  
way of your  
relationships

Marijuana



What's the difference  
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The Science of Marijuana

Marijuana can get in the way of your relationships

Marijuana can impact your brain

your brain processes information 50-80 times faster than adults

Marijuana

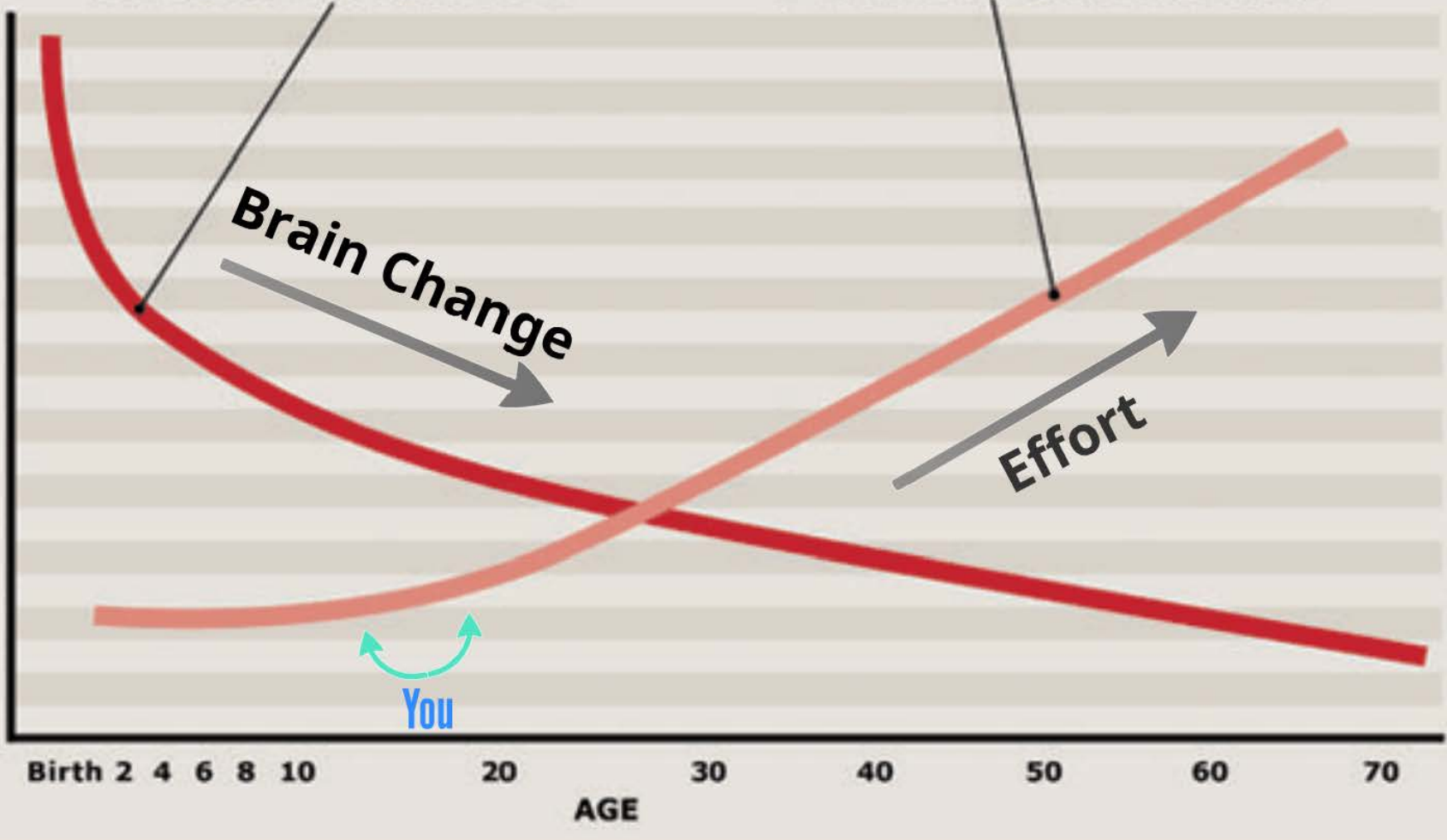
Gut Feelings





Normal Brain Malleability  
Influenced by Experiences

Physiological "Effort" Required  
to Enhance Neural Connections





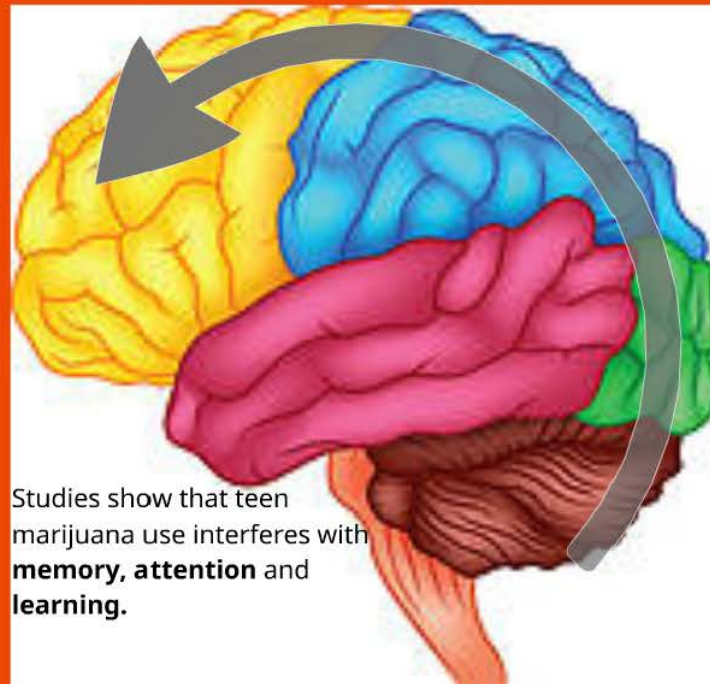
**Marijuana can impact**

## Temporal Lobe

- emotion
- sexuality
- language

## Pre-Frontal Cortex

- judgement
- insight
- controlling emotions



## Cerebellum

- movement
- vision
- coordination

## Brain Stem:

- breathing
- heart rate
- temperature





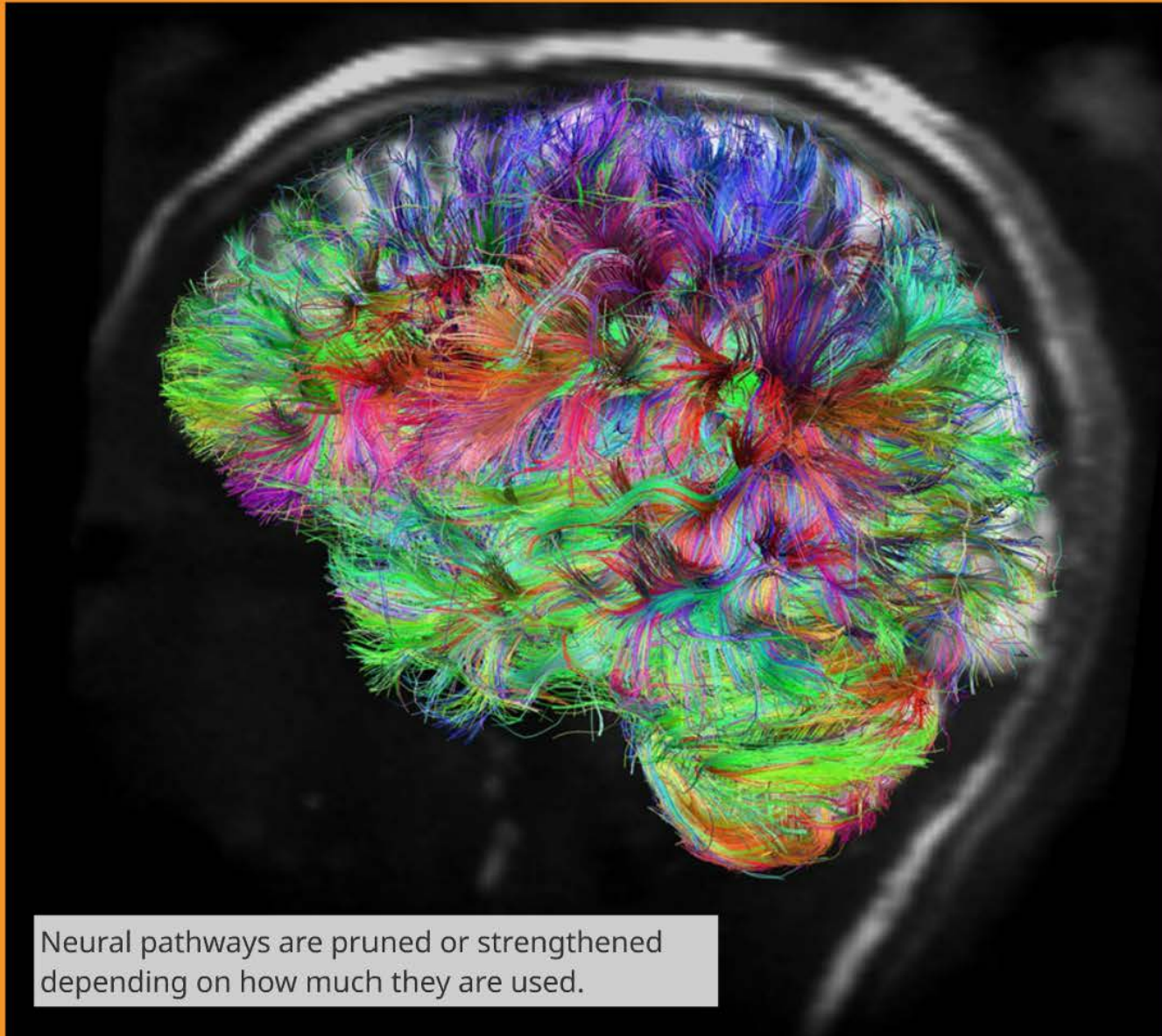


Pathways in the  
Adult Brain

Pathways in the  
Teen Brain



# Adult Neural pathways



Neural pathways are pruned or strengthened depending on how much they are used.



PROS

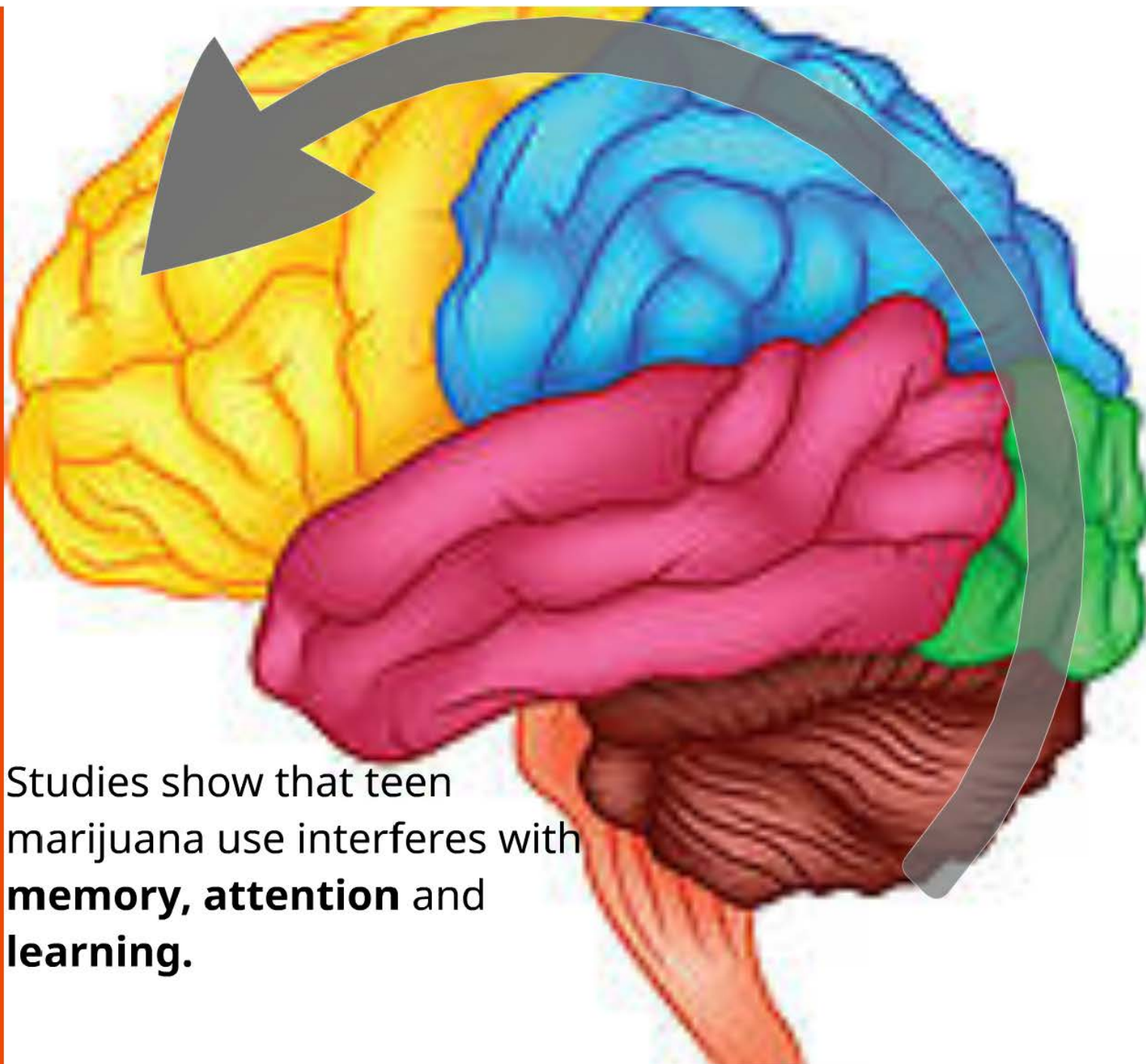
CONS





**Marijuana can impact  
your brain**

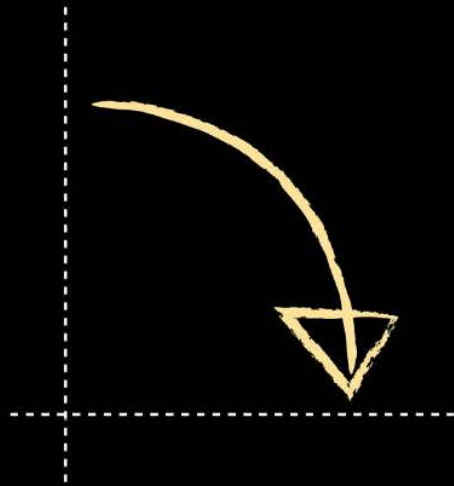




Studies show that teen marijuana use interferes with **memory, attention** and **learning**.

*Everyone feels  
down sometimes*

**BUT  
MARIJUANA  
CAN MAKE YOU  
FEEL WORSE**



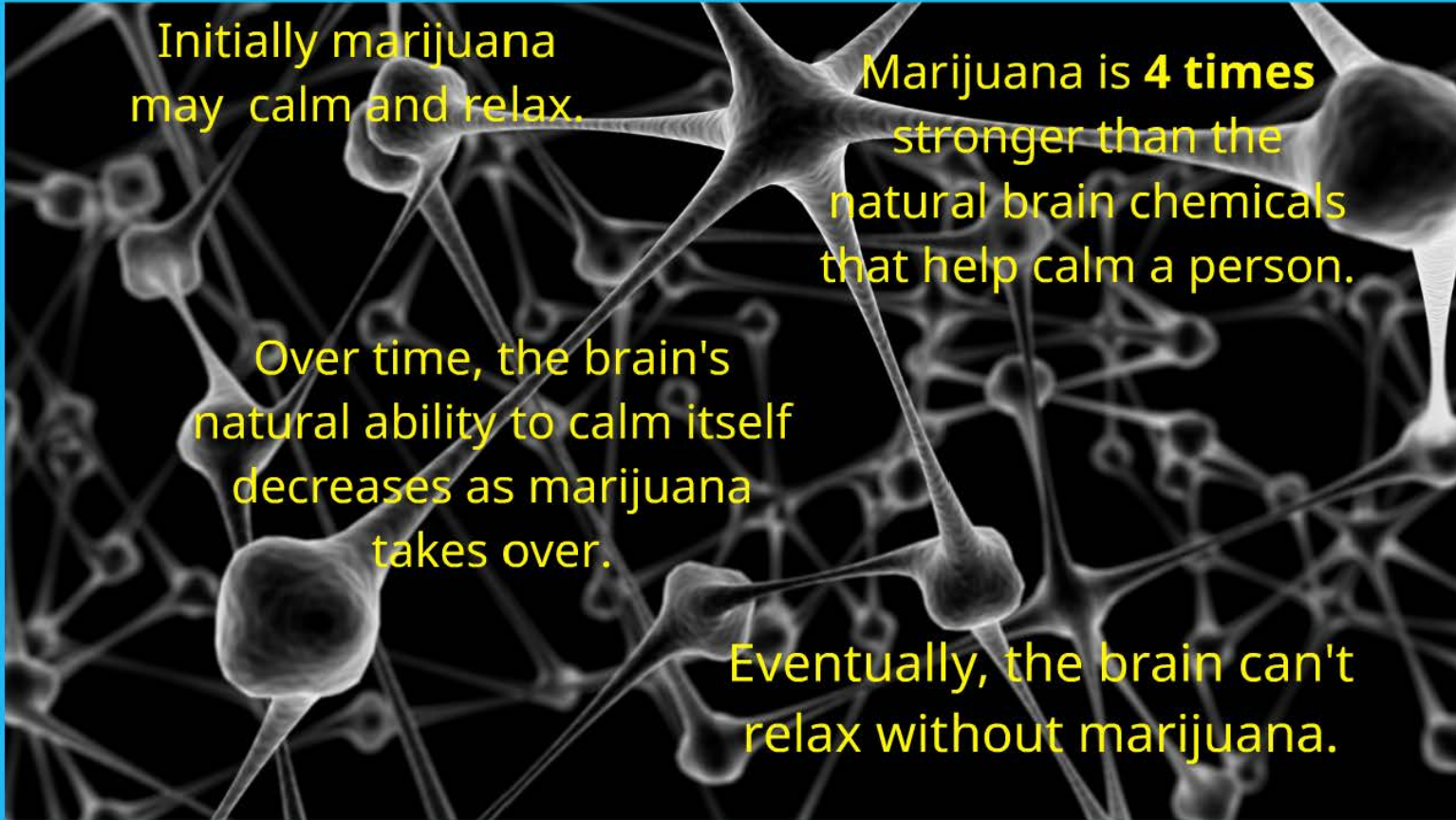
## In young people:

Initially marijuana may calm and relax.

Marijuana is **4 times** stronger than the natural brain chemicals that help calm a person.

Over time, the brain's natural ability to calm itself decreases as marijuana takes over.

Eventually, the brain can't relax without marijuana.





## Young people who use marijuana are...

**2x more  
likely to  
experience  
depression  
or anxiety**



**3x more  
likely to have  
suicidal  
thoughts**

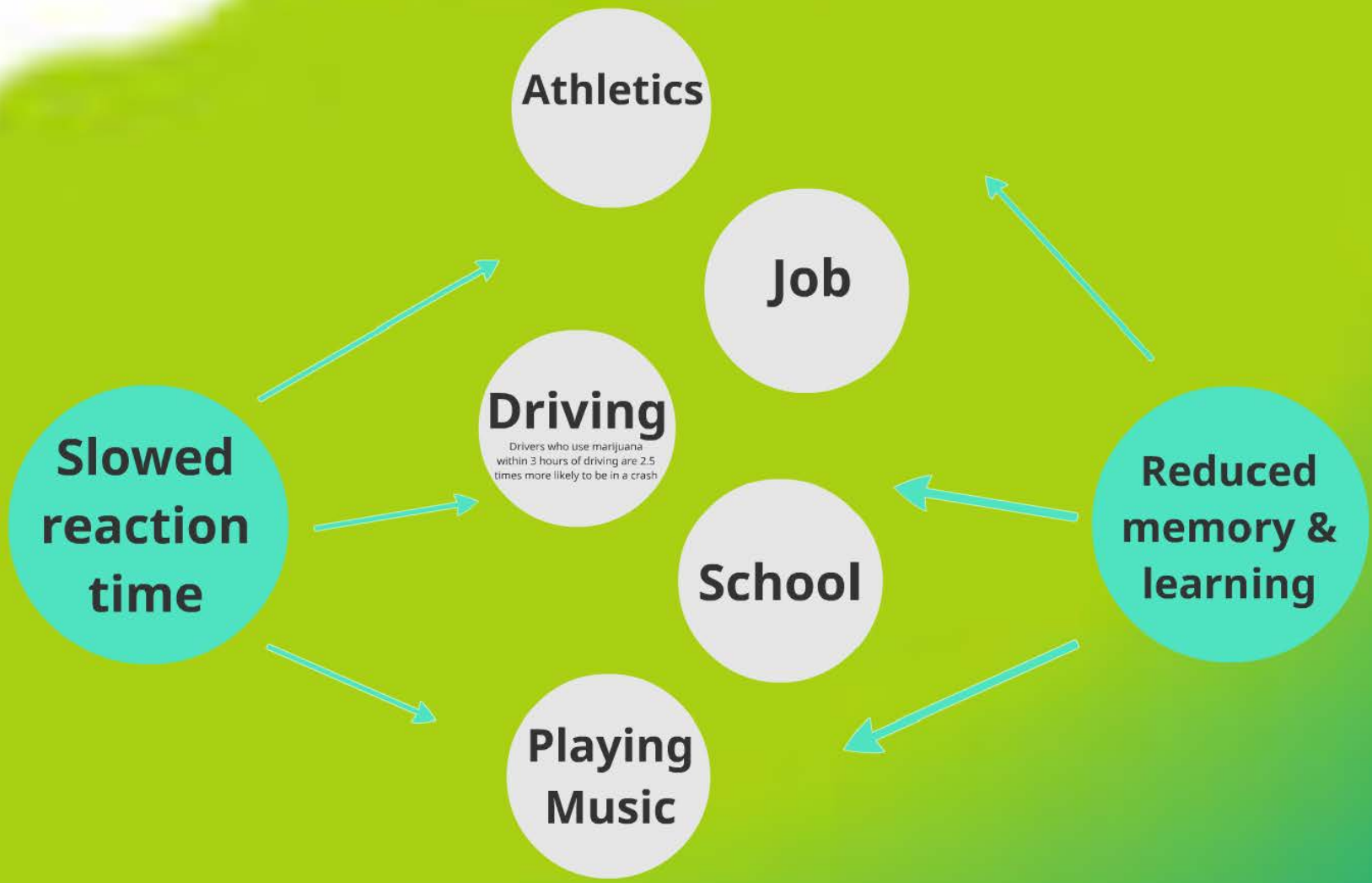




**Early use can lead to a  
substance use disorder**

**Marijuana  
can take  
control  
over what  
matters to  
you**





# Driving

Drivers who use marijuana within 3 hours of driving are 2.5 times more likely to be in a crash

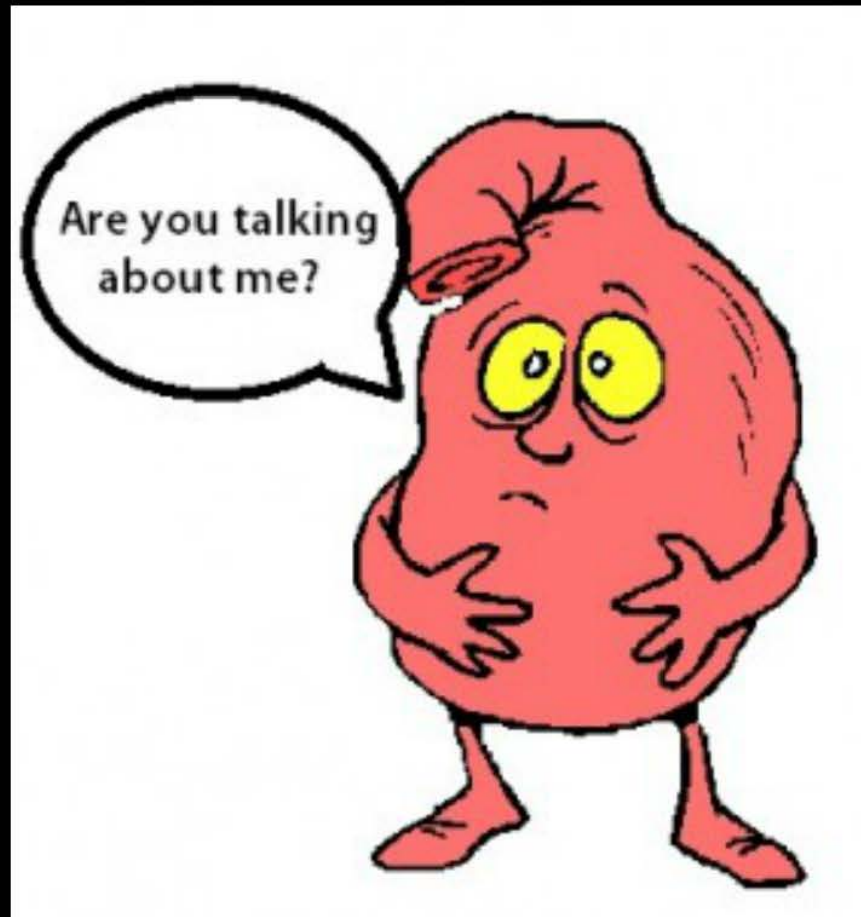






**Marijuana  
can get in the  
way of your  
relationships**

# Gut Feelings



You and a couple of friends are hanging out on a Friday night. Plans are being tossed around to figure out what to do. One friend suggests going over to this guy's house and you know he likes to smoke a lot of weed. One of your friends that you're with has already been in trouble for smoking weed, and you know if they got in trouble again, it would be really bad for her/him. What are some ways that you could move the group toward making a different decision?



**It's your path...**



**Who can help you get to where  
you want to go?**