

Intro + Lesson #1

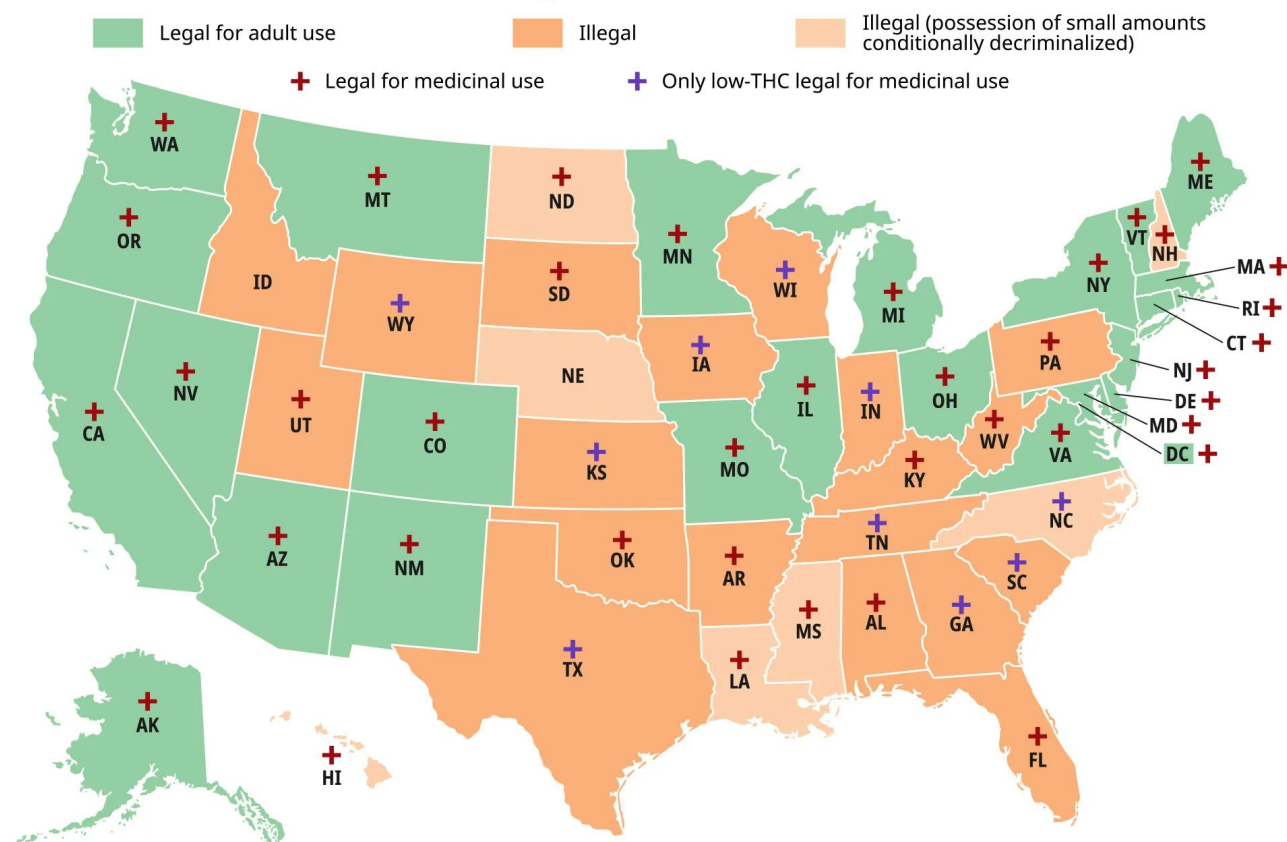
Intro to Illicit Drugs & Their Effects

WISE Program led by Yerin Cho





WHERE IS MARIJUANA LEGAL IN THE U.S.?



Source: NORML.

Data as of early 2024.

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Today's Agenda

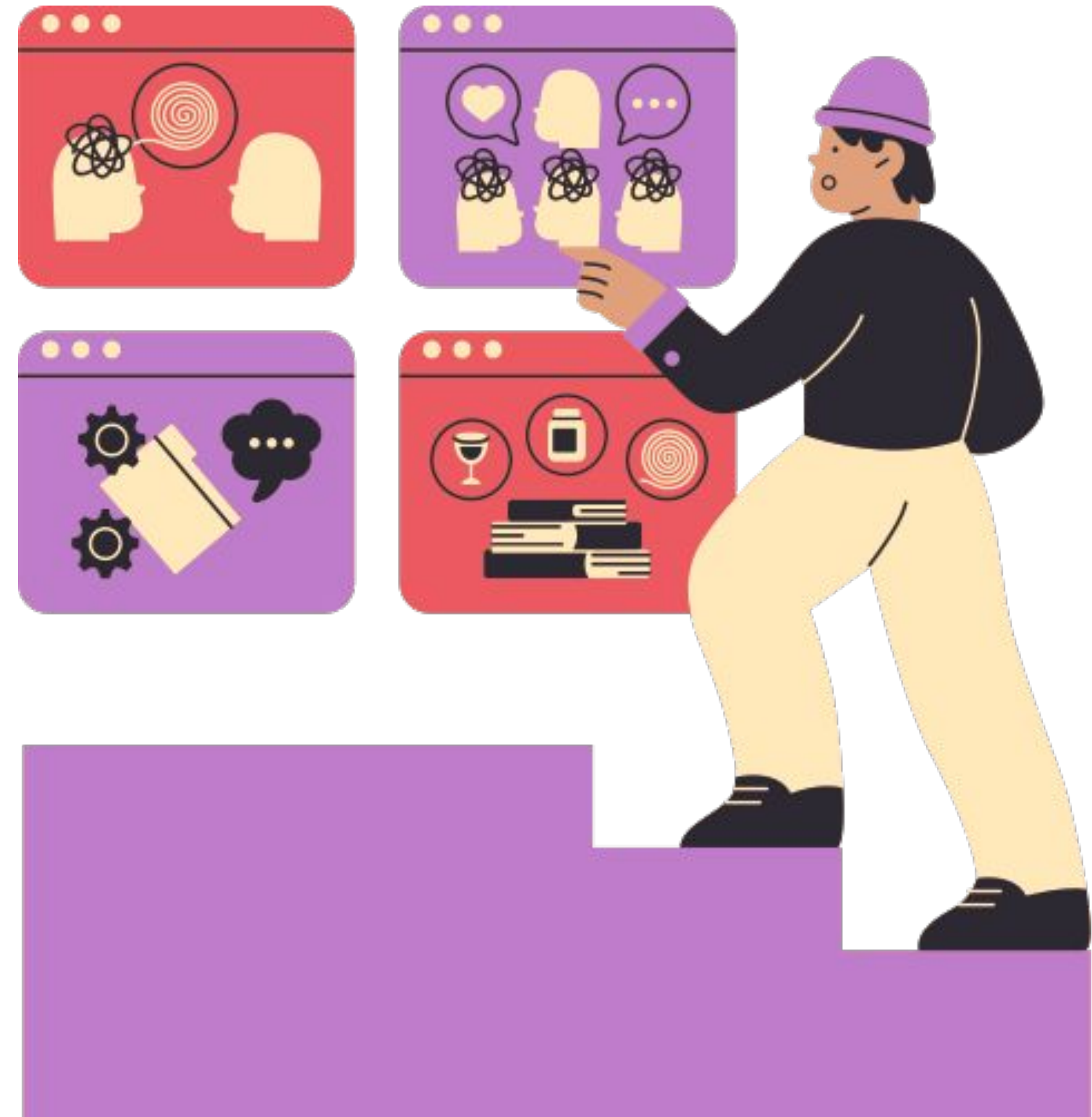
- About Us!!
- Quick Google Forms
- Kahoot
- Intro to illicit drugs
- Three main illicit drugs
- Effects of illicit drugs
- Naloxone

About Us – WISE

- WISE (Wellness Initiatives for Substance-free Environment)
- give adolescents awareness of the effects of illicit drugs
- empower students to set healthy boundaries for drugs
- 30min-1hr long interactive activities!

About Myself – Yerin Cho

- Junior at Emma Willard School
- Strong background in research & illicit drugs
- Runs @upper.ny.drugzero





Short Anonymous Google Survey!! ~5 mins





Kahoot for Fun!!! ~15 mins

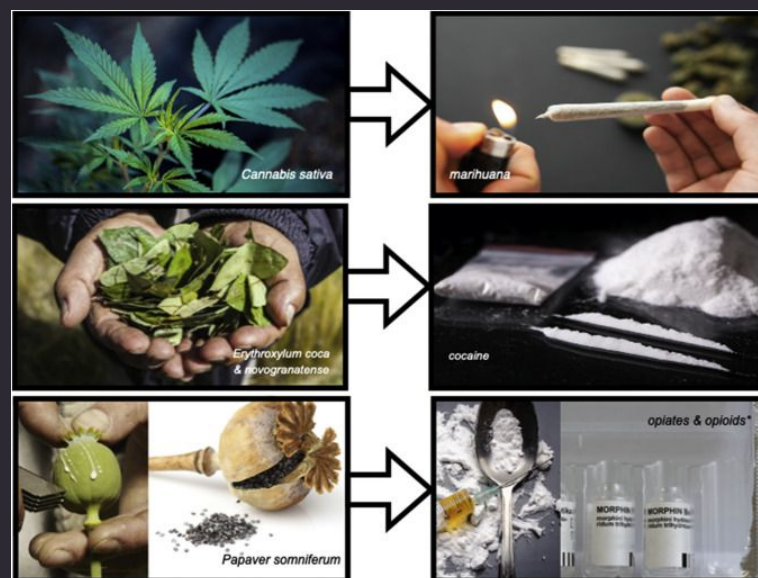
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Introduction to Illicit Drugs

- A substance that is either **naturally produced**, prepared from natural substances, or **synthetic**
- Largely classified into **stimulants, depressants, and hallucinogens**
- Laws around drugs are **controlled** by both **Federal** and **state governments** in the United States
- Placed in **different Schedules** based on their potential for abuse and medical use





Examples of Illicit Drugs

- **Stimulants:** increase brain activity, feel more awake, active
 - Nicotine, caffeine, amphetamine, **cocaine**, ecstasy
- **Depressants:** slows down brain activity, less stimulated, inactive
 - Xanax, GHB, alcohol, cannabis, ketamine, **heroin**, codeine, **fentanyl**
- **Hallucinogens:** affect senses, change the way you perceive senses
 - Cannabis, ketamine, LSD, psilocybin (shrooms)





Cocaine & Its Effects

- **Top abused drug** in the US (excluding alcohol, marijuana, and painkillers)
- Encompasses **40% of overdose emergency visit**
- From Coca Leaves, about **8,000 yrs** of history of cultivation
- **Flush of Dopamine** → **numbs senses** → **stronger reliance and heavier doses**
- Short High → increases re-use rates: 15% of people who used cocaine became addicted to the drug within 10 years
- Affects Glutamate, a neurotransmitter → impedes memory & learning
- **Severe withdrawal symptoms**: shakings, severe headache, fatigue
- Long term impacts: heart attack, strokes, etc



Heroin & Its Effects

- Synthetic opioid drug from morphine, from opium poppy plants
- **Surge of pleasure, drowsy & slow breathing for several hours**
- **Severe withdrawal symptoms:** restlessness, muscle & bone pain, diarrhea, vomiting, cold flashes, etc
- Users all at risk for overdose: **never know the actual strength**
- Long term impacts: kidney, liver, lung, mental diseases, HIV, hepatitis, bacterial infections, etc
- Heroin can be used through injecting it in our bloodstream.



Fentanyl & Its Effects

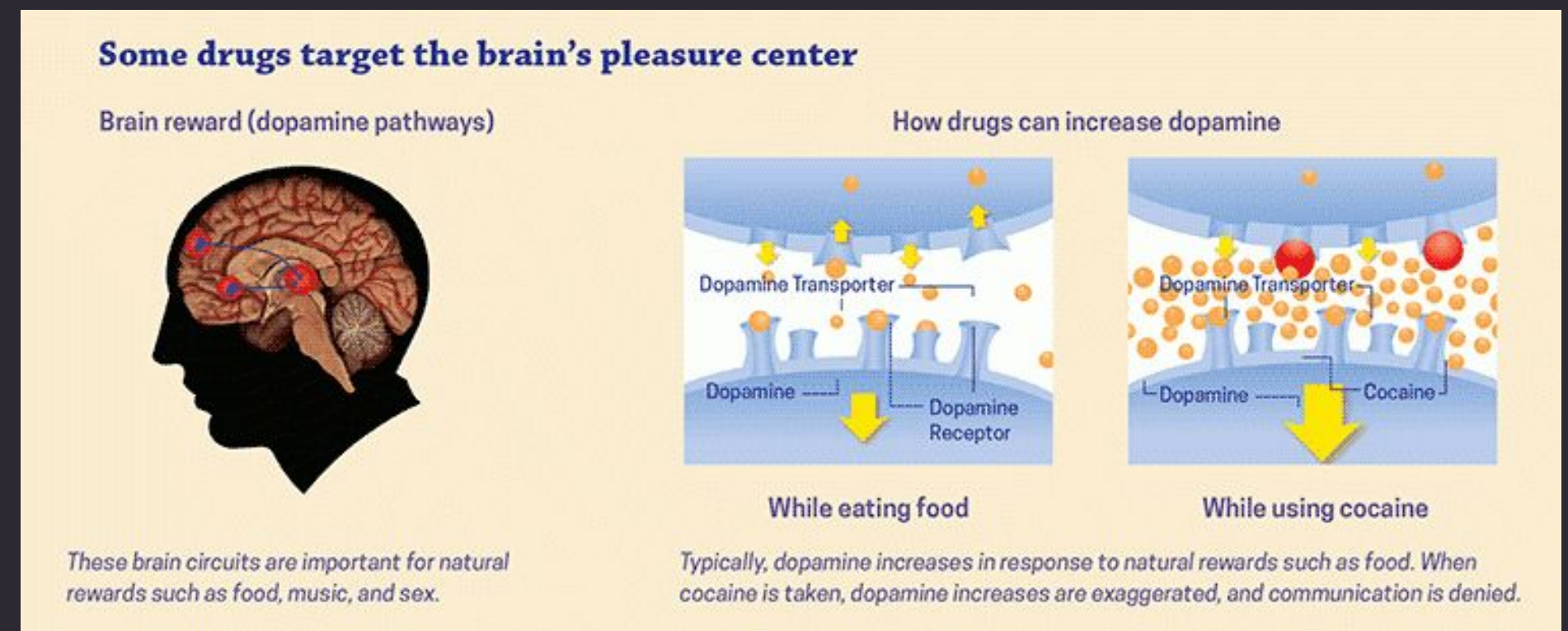
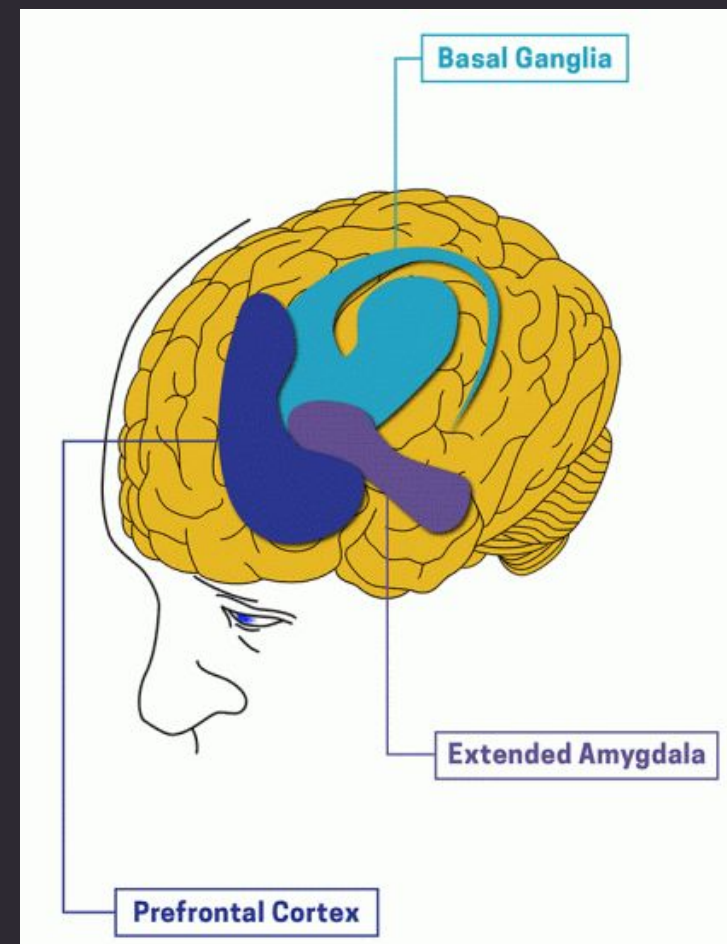
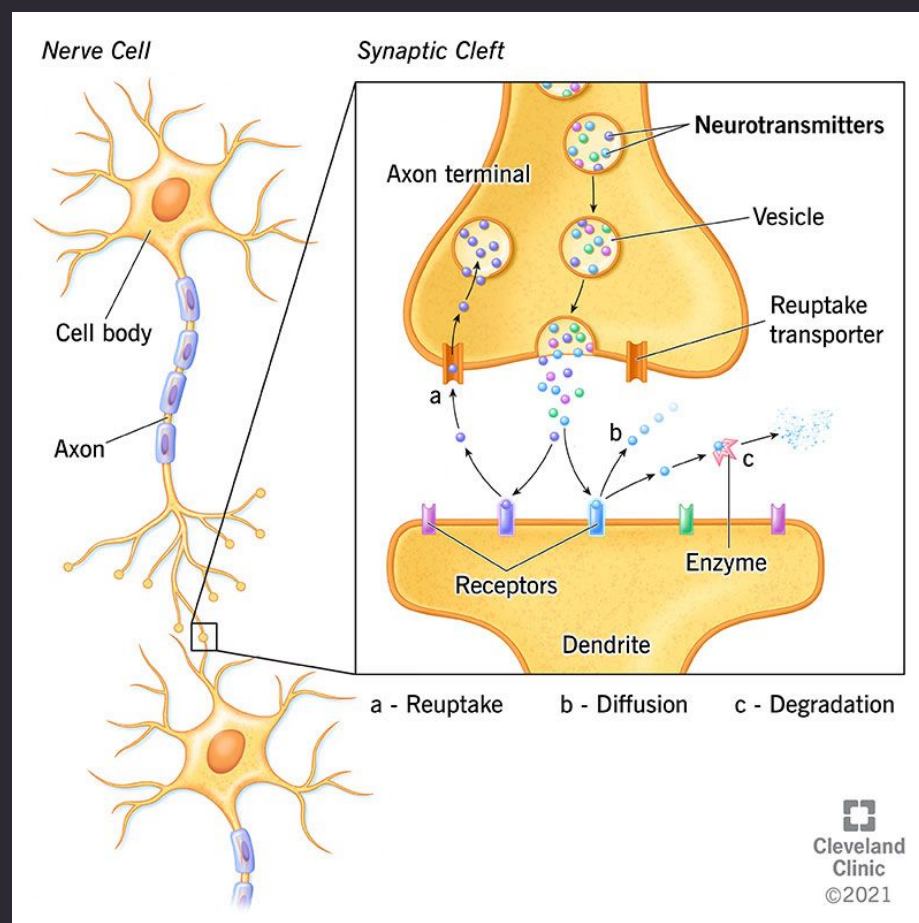
- **80% for overdose deaths, the No.1 factor**
- Synthetic opioid drug (x50 more **potent** than heroin -> high overdose risk)
- **Binds into opioid receptors that control pain and emotions**
- Brain adapts to drug, diminishes sensitivity & ability to feel emotions
- Causes **extreme happiness**, drowsiness, nausea, breathing problems, etc
- **Severe withdrawal symptoms**: muscle & bone pain, itching, severe cravings, cold flashes, diarrhea, vomiting, etc



What's happening in your brain?



- Drugs affect the way neurons send, receive, process signals through neurotransmitters
- Neurotransmitters are norepinephrine, **dopamine**, and serotonin
- Cause activation of neurons / cause neurons to release large amounts of neurotransmitters
- Neurotransmitters get 'trapped' next to the receptors, so the receptors continuously send out signals
 - Overall, illicit drug **amplifies** or **disrupts** the **normal communication between neurons**



How to treat drug overdose? = Naloxone!



- Rapidly **reverses opioid overdose**
- **Binds to opioid receptors**
- **Blocks** the effects of other opioids, such as fentanyl, heroin, morphine, etc
- Effective **within 2–3 minutes**
- **Accessible in CVS** in all 50 states
- WISE will soon distribute free naloxone in Troy !!

Interactive Activity – Think, Pair, & Share

- What information was most intriguing?
- What information was new to you?



**Thank you
for listening!**

