

Opioid Overdose Prevention and Reversal

Training materials purchased through SAMHSA

In one year, drug overdoses
killed more Americans than
the entire Vietnam War

And has continued for years!

Why is this important?

- ◆ In March 2024– there were 523 visits to ERs due to drug use and 273 EMS runs due to opioid use – that we know about in Mississippi
- ◆ Overdose death trends due to synthetic opioids, such as fentanyl, decreased in 2024. In 2023, there were 76,282 deaths and in 2024 there were a reported 48,422 deaths due to synthetic opioids.
- ◆ Overdose is a leading cause of injury and death in the United States with an estimated 110,037 overdose deaths reported in 2023. The CDC reports a decrease of 26.9 % in 2024, with an estimated 80,391 deaths.

Children

- ◆ According to the CDC, deaths due to opioid overdose has quadrupled for children ages 5-14
- ◆ The DEA warns that Rainbow Fentanyl is being used by drug traffickers to drive addiction among kids and young adults
- ◆ Children also remain a victim of the overdose epidemic by ending up in an already over populated foster program due to parents' deaths

Financial

- ◆ Prescription drug use/misuse costs the United States an estimated \$500B a year.
- ◆ In Q3 of 2022, there were over 30 million opioid dosage units dispensed in Mississippi - enough for every Mississippian to have more than 10 doses each



A Texas man was arrested Monday after Mississippi deputies pulled over his SUV and discovered more than three pounds of fentanyl hidden inside one of the vehicle's seats.

A Rankin County Sheriff's Office deputy made a traffic stop on a Chevrolet Tahoe, driven by Carlos Martinez of Dallas, for a traffic violation on Interstate 20.

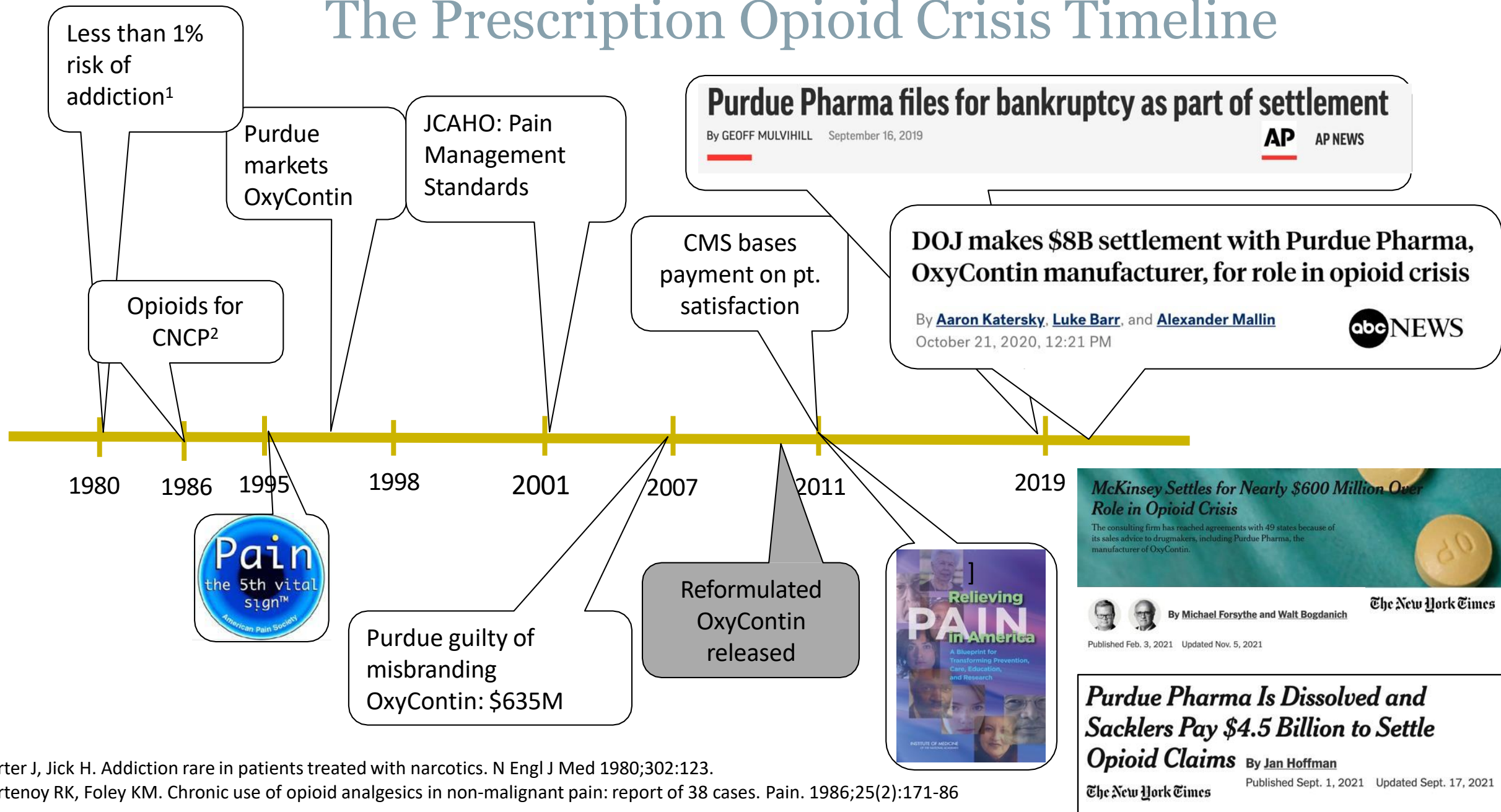
Deputies said they became suspicious that Martinez was involved in illegal activities.



How did we get here?



The Prescription Opioid Crisis Timeline



¹Porter J, Jick H. Addiction rare in patients treated with narcotics. N Engl J Med 1980;302:123.

²Portenoy RK, Foley KM. Chronic use of opioid analgesics in non-malignant pain: report of 38 cases. Pain. 1986;25(2):171-86

mayo clinic

Today, more than 10%
of people given opioids
will become addicted to
them

Addiction

- ◆ Approximately 80% of all individuals that are using heroin today, started using opioids as prescribed by a physician due to a legitimate pain issue, such as a broken bone or post surgery
- ◆ The body starts to become physically addicted to an opioid in approximately 5-10 days
- ◆ Opioids activate the reward center of our brain – something our bodies naturally do – however, after being on opioids for a period of time, the brain stops working like it used to



Addiction is a Chronic Brain Disease, Not A Moral Failing

Surgeon General Vivek Murthy

American Society of Addiction Medicine

- ◇ "Addiction is a treatable, chronic medical disease involving complex interactions among brain circuits, genetics, the environment, and an individual's life experiences. People with addiction use substances or engage in behaviors that become compulsive and often continue despite harmful consequences. Prevention efforts and treatment approaches for addiction are generally as successful as those for other chronic diseases"
- ◇ How successful is the American Heart Association in the prevention and treatment of heart disease?
- ◇ How successful is the American Medical Association for the Center for Disease Control in the prevention and treatment of Type 2 diabetes?
- ◇ Take away --- someone with addiction cannot just stop! They must receive evidence-based treatment from qualified individuals with compassion and urgency and the individual must follow through on treatment planning including a change in their social environment... everything about their life

Addiction Treatment

- ◆ 40 Million or 1 in 7 million individuals ages 12 and older have a substance use problem
- ◆ This is more than:
 - ◆ Heart Conditions – 27 million
 - ◆ Diabetes – 26 million
 - ◆ Cancer – 19 million
- ◆ Yet on 11% receive the help they need!



Fentanyl 101

For First Responders

What is fentanyl?

- ◊ Fentanyl is a prescription opioid used to treat pain.
- ◊ Doctors will usually prescribe Fentanyl when individuals are tolerant to other opioids.
- ◊ They are typically prescribed as long-acting patches; but can often be found in hospitals as an injectable substance
- ◊ Fentanyl is dosed out in micrograms and a common dose is somewhere between 12-100 mcg per hour.
- ◊ Fentanyl is 50 – 100 times more potent than morphine.
- ◊ And lastly, Fentanyl has quickly become a street drug.

What about carfentanil?

- ◊ Carfentanil is the most potent analog of fentanyl that has been found in the US
- ◊ Carfentanil has no known use in modern human medicine
- ◊ Carfentanil is 10,000 times more potent than morphine and is 100 times more potent than fentanyl
- ◊ Carfentanil is used to tranquilize elephants and other large mammals – in fact, 2mg of carfentanil can make an average size elephant lose consciousness and would be enough to kill at least 50 people

Law Enforcement Officers are Affected by the Opioid Epidemic

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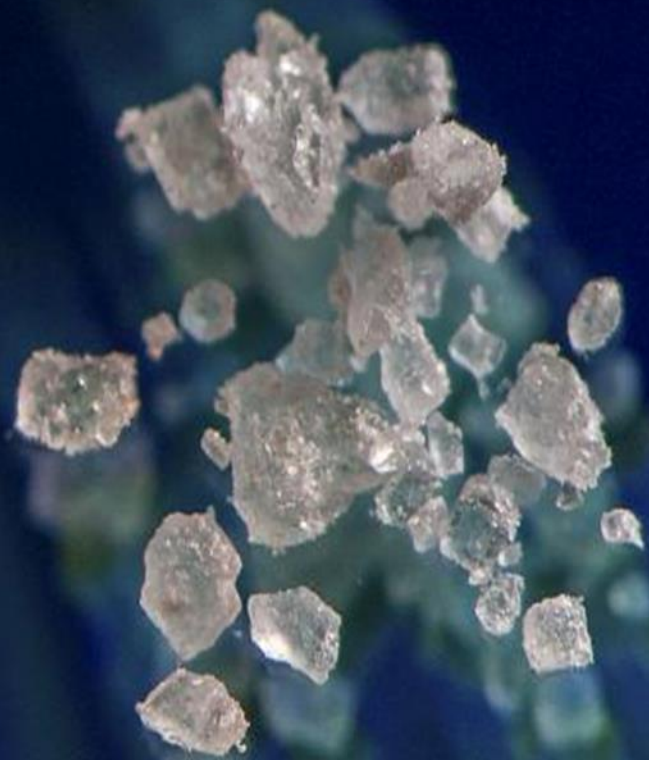


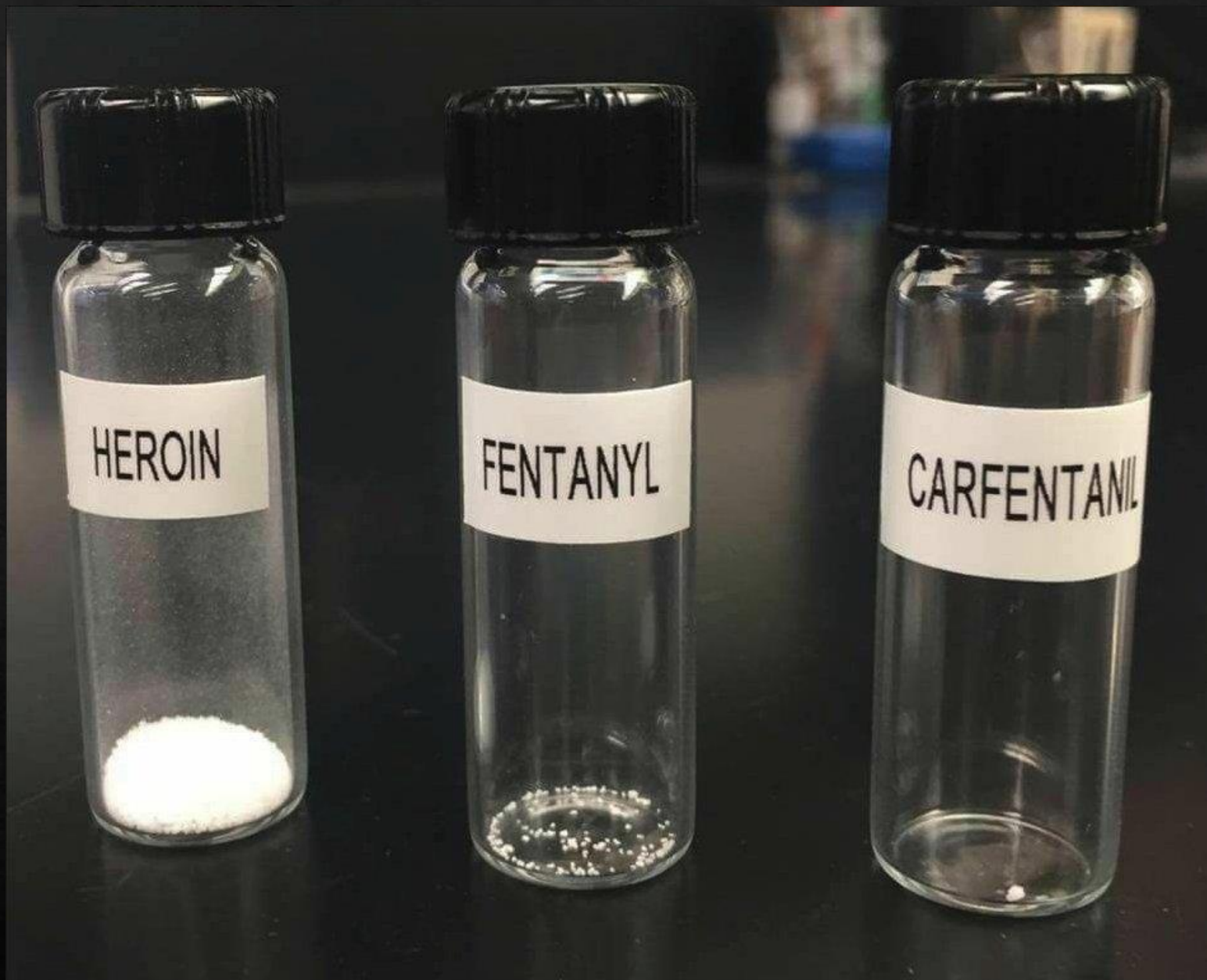
POLICE  ACTIVITY

Lethal Dose





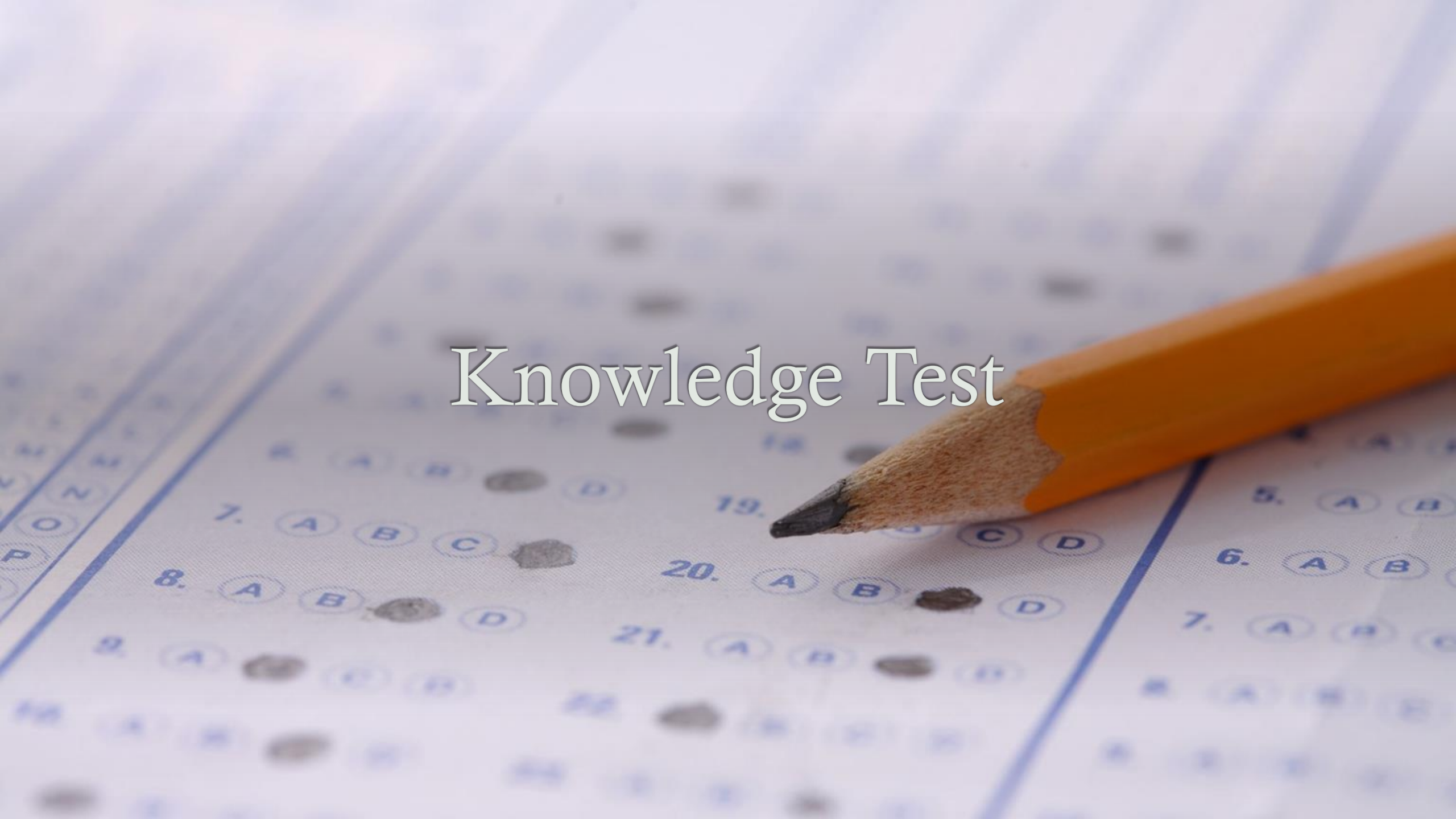




Do not assume you know what you are dealing with!

- ◊ Fentanyl (and carfentanil) can be found in powder form – of every color
- ◊ These substance are found in pills, that are shaped like other pills such as Adderall, Xanax, Percocet
- ◊ Fentanyl has been found in ecstasy
- ◊ Your regular presumptive test kits will not pick up fentanyl or carfentanil - so the drugs may not show a positive presumptive test if it is pure fentanyl

Knowledge Test



Which is real?





Which is real?

Which is real?



What do you need to do if you come into contact?

- ◊ Wash your hands in COOL water for 15 minutes with regular, non-alcohol based soap.
- ◊ DO NOT use alcohol based hand sanitizer to get powder off your hands.
- ◊ Make sure you are using fentanyl resistant gloves to ensure that you do not have skin to skin contact
- ◊ If you notice yourself or someone around you start having symptoms of overdose (discussed in a moment), call EMS immediately and have your naloxone ready.

Perform a situational risk assessment

- ◆ After you make sure that the risk of violence is at a minimum, expand your risk assessment
- ◆ Look to see if you there are powders or residue on tables
- ◆ Look to see if you happen to see random pills or pill bottles
- ◆ Is there packaging materials, i.e. scales, jeweler's bags
- ◆ Is there a chance that me or my partner could overdose by being in this room
- ◆ Also... look for the clues in the phone – if you happen to have access or notice texts going off

Popular Drug Emojis

Oxycodone



Xanax



Popular Drug Emojis

Percocet



Heroin



Adderall



Meth



Popular Drug Emojis

Cocaine

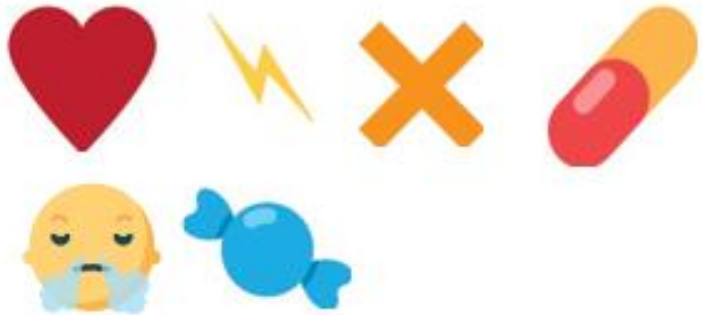


Marijuana



Popular Drug Emojis

MDMA and Mollies



Universal for Drugs



Cough Syrup



High Potency



Mushrooms



Popular Drug Delivery Emojis

Packaged Arrived



100 Pills

100pk = 100pk = 100 pills

Mobile/Delivery



Large Batch



Who is at risk?



Everyone!

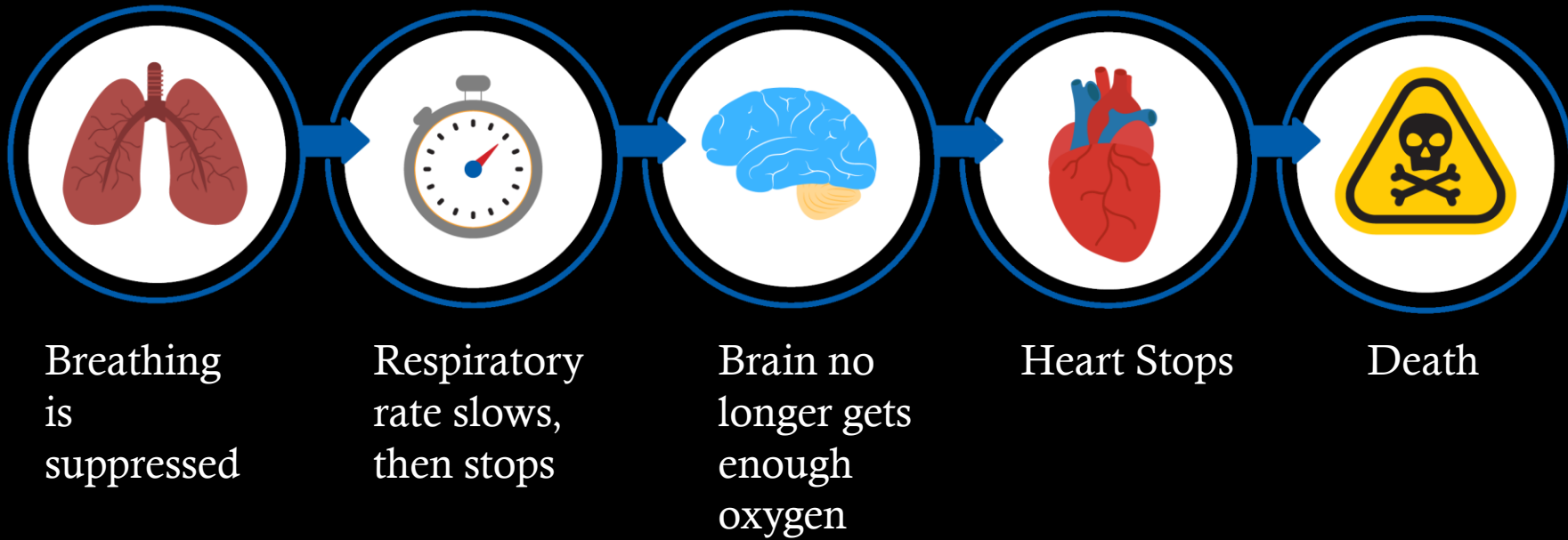
- ◆ 44% of American say that know someone who has been or is addicted to opioids and 20% of American says they know someone that had died of an opioid overdose
- ◆ Individuals that take prescriptions medications from multiple different doctors (even if they are not "doctor shopping")
- ◆ Individuals that have been prescribed opioids along with benzodiazepines
- ◆ Individuals that drink with their medications
- ◆ Individuals that have reduced their tolerance to substance (exiting jail or rehab)
- ◆ Individuals that are opioid sensitive

What does an overdose look like?

Signs and Symptoms of an Overdose

- ◊ Unconsciousness or inability to be woken
- ◊ Unusually sleepiness (nodding out)
- ◊ Slow or shallow breaths – or breathing difficulties with a gurgling sound
- ◊ Lips and/or fingernails are turning a bluesish purple color
- ◊ Skin may feel cold and clammy
- ◊ Slowed heartbeat and/or low blood pressure
- ◊ Pupils will be pinpoints if it is an opioid overdose

Chain of Events



If you see someone displaying these symptoms, you must ...

1. Immediately have EMS dispatched. An opioid overdose should be ultimately treated by emergency medicine personnel.
2. Support the person's breathing – decide if CPR is needed
3. Administer Naloxone

Administer Naloxone



Peel

- **Peel** back the package to remove the device. Hold the device with your thumb on the bottom of the plunger and 2 fingers on the nozzle.



Place

- **Place** and hold the tip of the nozzle in either nostril until your fingers touch the bottom of the patient's nose.



Press

- **Press** the plunger firmly to release the dose into the patient's nose.

If CPR is needed (there is no heartbeat)

- ◇ Begin CPR
- ◇ Give Naloxone, but continue CPR if there is no pulse
- ◇ Give Naloxone every 2-3 minutes until you get a pulse and the individual starts to breath normally on their own – or until EMS arrives

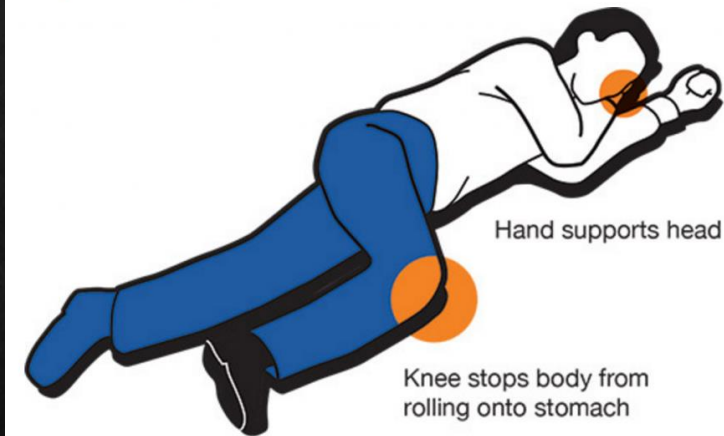


If CPR is NOT needed – there is a pulse

- ◆ Give Naloxone every 2-3 minutes until the individual begins to breath normally
- ◆ Once you administer Naloxone, put the individual in a recovery position
- ◆ If the individual loses a pulse, you should start CPR.

The Recovery Position

Keep the Airway Clear



Stay with person. If you must leave them alone at any point, or if they are unconscious, put them in this position to keep airway clear and prevent choking.

Risk of Naloxone

- ◇ Using Naloxone can cause severe opioid withdrawal which can include any or all of the following:
 - ◇ Extreme body aches
 - ◇ Diarrhea
 - ◇ Increased heart rate (tachycardia)
 - ◇ Nausea or vomiting
 - ◇ Shivering or trembling
 - ◇ Increased blood pressure
 - ◇ NOTE – It has been reported that people can become aggressive when administered Naloxone. Ensure that you are physically safe

Other risks – black box warnings

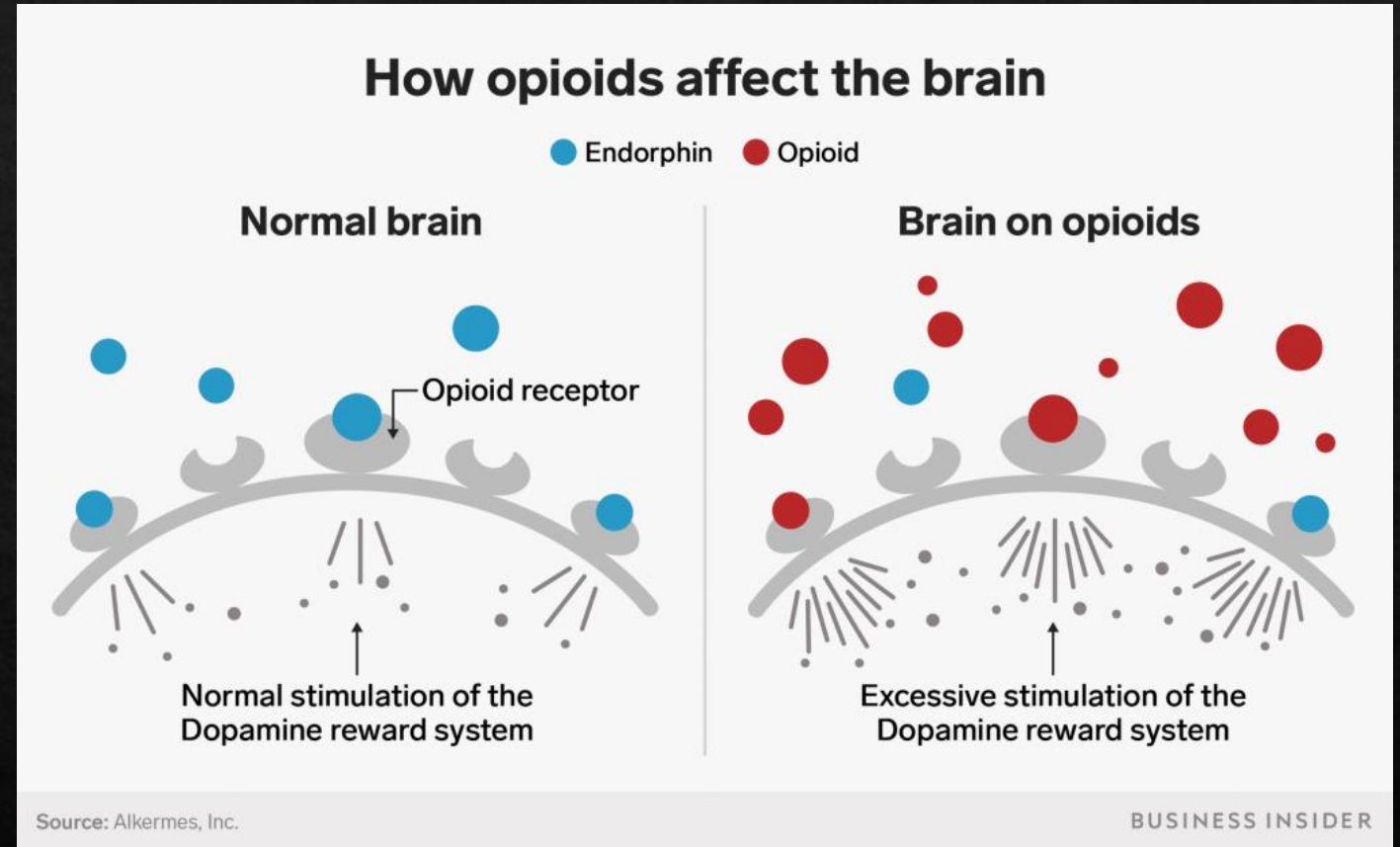
- ◆ Abrupt postoperative reversal of opioid depression may result in adverse cardiovascular effects. These events have primarily occurred in patients who have pre-existing cardiovascular disorders or received other drugs that may have similar adverse cardiovascular effects.
- ◆ Infants under 4 weeks of age and younger, who have been receiving opioids regularly, sudden opioid withdrawal may be life-threatening if not treated right away. Signs and symptoms can include, seizures, crying more than usual, and increased reflexes.



How does all this actually work in the brain?

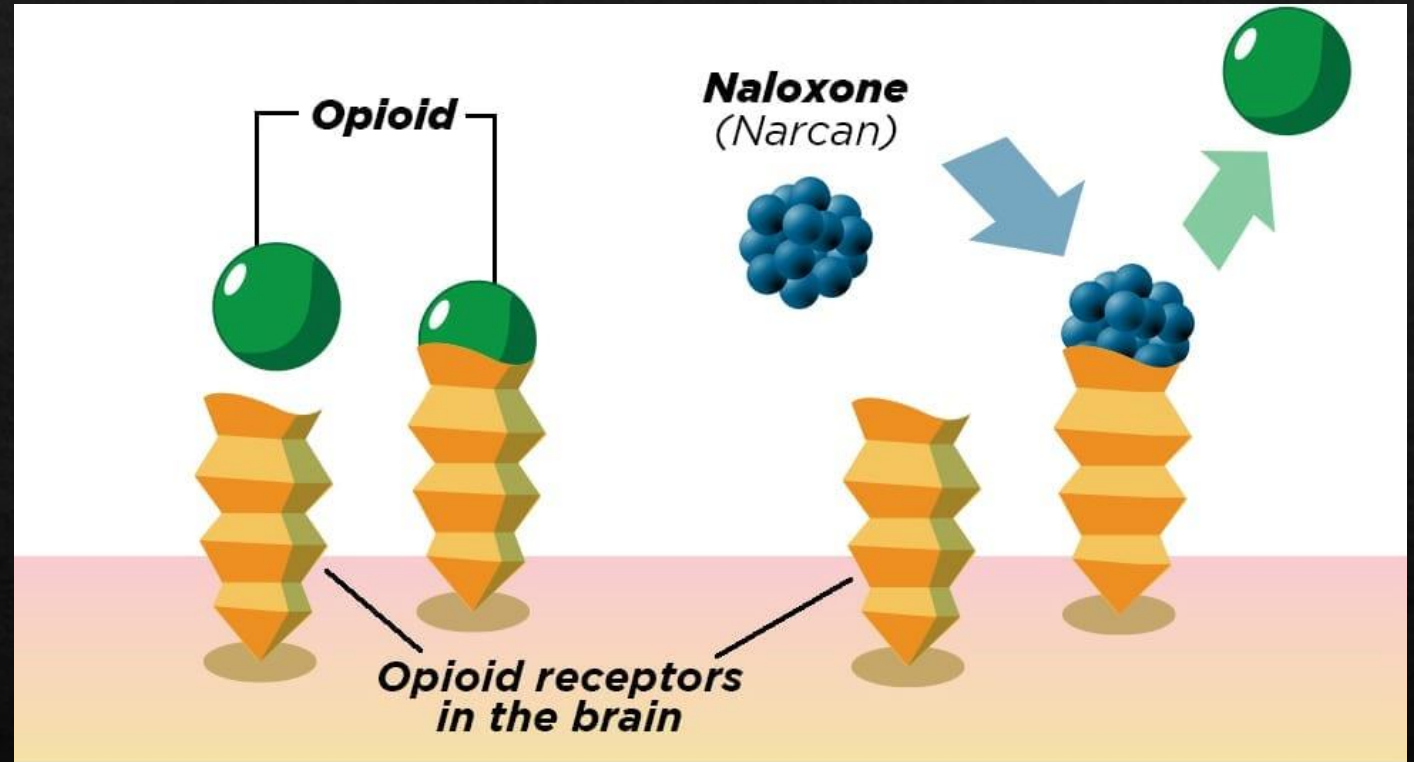
Opioids and the Brain

- ◇ An opioid enters the system and attaches itself to the opioid receptor in the brain.
- ◇ This receptor not only increase the dopamine reward system, it decreases the reparatory system.
- ◇ When too many opioids are on the receptors, you end up with respiratory distress, aka an overdose



Naloxone

- ◊ Naloxone competes with opioids to bind to the mu-receptors in the brain (the opioid receptors).
- ◊ Naloxone has a stronger affinity to the mu-receptor than the opioids do.
- ◊ Naloxone comes in and knocks off the opioids from the receptor, causing an immediate reversal, allowing the individual to breathe.



Duration

- ◇ The half life of Naloxone is about 2 hours
- ◇ The half life of popular opioids:
 - ◇ OxyContin – 12 hours
 - ◇ Heroin – 4-6 hours
 - ◇ Opana – 7-9 hours
 - ◇ Fentanyl – 8-10 hours
- ◇ Meaning the individual could overdose again, without using again in 2 hours or less
- ◇ The use of Naloxone does NOT replace emergency medical treatment... the individual still needs to go to the emergency room!



Different types of naloxone

Over-the-counter naloxone

- ❖ As of March 29, 2023 the FDA has approved Narcan, 4mg nasal spray as an over-the-counter medication.
- ❖ By mid to late summer, Narcan should be available in pharmacies without a prescription or even having to talk with a pharmacist
- ❖ As of today, Narcan is the only form of naloxone that has been approved.



How much naloxone can you give?

- ◊ You cannot give someone too much naloxone.
- ◊ Chances are, you will have to use more than one unit to revive a person, especially with the influx of fentanyl.
- ◊ If you believe the individual has overdosed on an opioid, continue giving naloxone until they start breathing or EMS arrives

When will naloxone not work?

- ◊ Naloxone is only effective on opioids.
- ◊ If the individual has taken something like Tranq – a drug that is an opioid mixed with Xylazine (an animal tranquilizer), naloxone may not work. It will remove the opioids from the receptor, but it will not reverse the effects of Xylazine.
- ◊ If the individual has drank too much and/or used too many benzodiazepines, naloxone will not work – again, it only reverses the effects of opioids
- ◊ However, when in doubt, use naloxone anyway. Naloxone will not cause harm to anyone if used and they are not in respiratory distress from an opioid overdose.

Storage

- ◆ Naloxone must be stored at room temperature; between 59° F and 77° F. It may be stored for short periods of time in temperatures up to 104° F.
- ◆ Naloxone must not be frozen.

Storage Options

- ◆ Due to the requirements of keeping naloxone at room temperature, there are multiple storage options available to help you keep your naloxone close.



Good Samaritan Laws

- ◇ House Bill 692, regular session 2015 – Named all first responders and “any other person” and stated that all are immune from civil or criminal liability or professional licensing sanctions if you use an opioid antagonist (naloxone).
- ◇ House Bill 996, regular session 2017 – Again, named all first responders and “any other person” immune from criminal or civil liability or professional licensing sanctions if you use an opioid antagonist (naloxone) or you have an opioid antagonist and decide not to use it.



What is next?

Treatment

- ◆ Opioid addiction must be treated with evidence-based practices by professionals – you must know places to refer the individual in your area.
- ◆ Using naloxone on someone without providing them or their family some type of referral information is only postponing their death for the moment. In order to save their lives, they must seek treatment services.
- ◆ It is important that the individual go to the local emergency room after the use of naloxone, but they cannot always be trusted to provide appropriate referrals. I implore you to make sure that the individual and/or their family have access to care.



What else can you do?

Harm Reduction

- ◆ Make sure people you know have the knowledge you have gained about opioid use disorder and opioid overdose reversal
- ◆ Make sure people you know get access to naloxone – it is easy in Mississippi – [ODFree.org](https://www.odfree.org)
- ◆ Get rid of your old medication, the correct way – most adolescents' first use of prescription drugs is from their family's medicine cabinet
- ◆ Encourage people that use drugs to at least test their drugs for fentanyl before use – and as of July 1, 2023 individuals can obtain fentanyl test strips without fearing a charge for drug paraphernalia.
- ◆ Most importantly, help destigmatize substance use disorders and obtaining help!

