

Office of the Attorney General

Seniors, Pain Relief, and Opioid Abuse

A History Lesson Taught Through Time



Today's Discussion

- History of “pain killers”
- Generational messages
- Knowing the definitions
- Laws
- Transitions
- Biological and biochemical effects
- Propaganda



The Rabbit Hole: An Epidemic of Addiction



American History of Heroin

3400BC –
Mesopotamian
cultivation of
Opium Poppy
used by
Egyptians and
Persians, later
spreads to India
and China

1895 – Bayer
Pharmaceutical:
“heroin – a
successful
wonder drug” for
respiratory
illnesses

1930’s –
Crime
syndicates
take over
prod. and
dist. Of
heroin

1950’s and
60’s –
Illegal use
gains favor
in hippie
culture

1980’s and
90’s –
impurity
improves;
alt.
snorting
and
smoking

1874 -- C.R.
Wright
synthesizes
heroin, but
halts due to
experiencing
side effects

1924 –
~ 200K
Americans
addicted;
Congress
bans

1940’s –
Cold War
heats up
production
and
trafficking

1971 –
Heroin use
by soldiers
in Vietnam
is
investigated
by Congress

2010 to
current –
death toll
rises to
epidemic
rates



Happy Birthday?



Which Generation are You?

Generation Name	Births Start	Births End	Youngest Age Today*	Oldest Age Today*
The Lost Generation - The Generation of 1914	1890	1915	103	128
The Interbellum Generation	1901	1913	105	117
The Greatest Generation	1910	1924	94	108
The Silent Generation	1925	1945	73	93
Baby Boomer Generation	1946	1964	54	72
Generation X (Baby Bust)	1965	1979	39	53
Xennials	1975	1985	33	43
Millennials	1980	1994	24	38
Generation Y - Gen Next	1995	2012	6	23
iGen / Gen Z	1995	2012	6	23
Gen Alpha	2013	2025	1	5

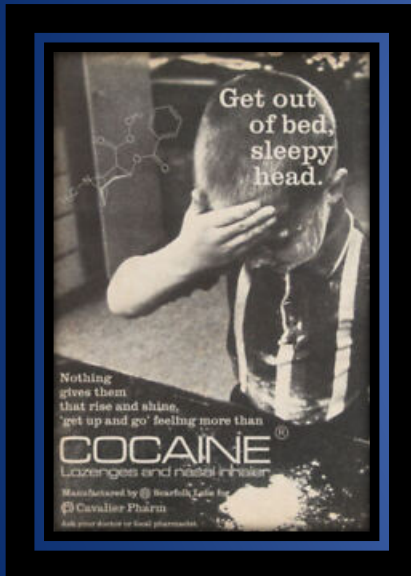
(*age if still alive today)



The Greatest Generation: 1910-1924

Propaganda (1891-1929)

*“Nothing gives them that rise and shine,
'get up and go' feeling more than
COCAINE ...Lozenges and nasal inhaler”*



“There is a cure for alcoholics that has shed it's radiance into thousands of desolate homes. It does it's work silently and surely that while the affected loved ones look on, the drunkard is reclaimed, even against his will or without his knowledge.”

“A sedative for coughs. You will have to call for them. Order a supply from your jobber.”



The Opium Message : 1930's – 1940's



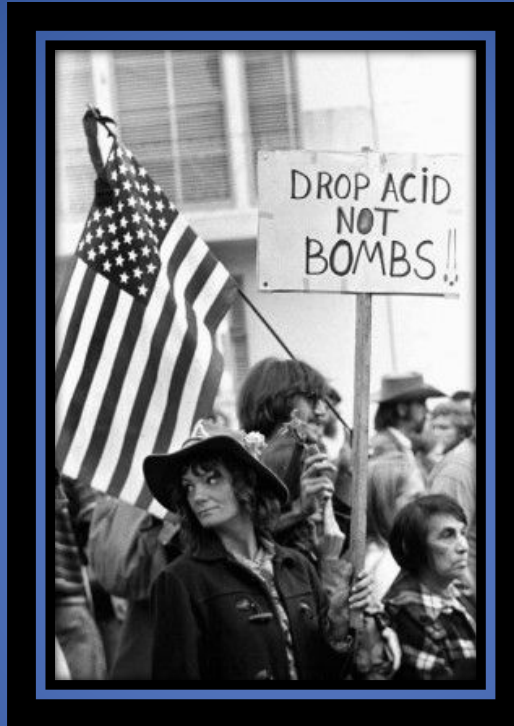
The Wizard of Oz



"We must find something with poison in it, but attractive to the eye and soothing to the smell." ~ Wicked Witch of the West, The Wizard of Oz (1939)



What Baby Boomers Heard: The 1960's-1970's



The Vietnam Conflict



What Gen X Heard: 1970's-1980's

Don't let drug dealers
change the face of

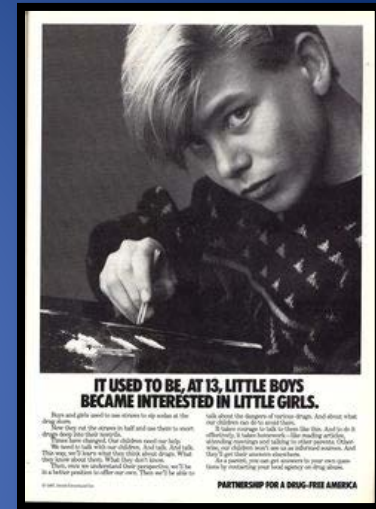
your neighbourhood!



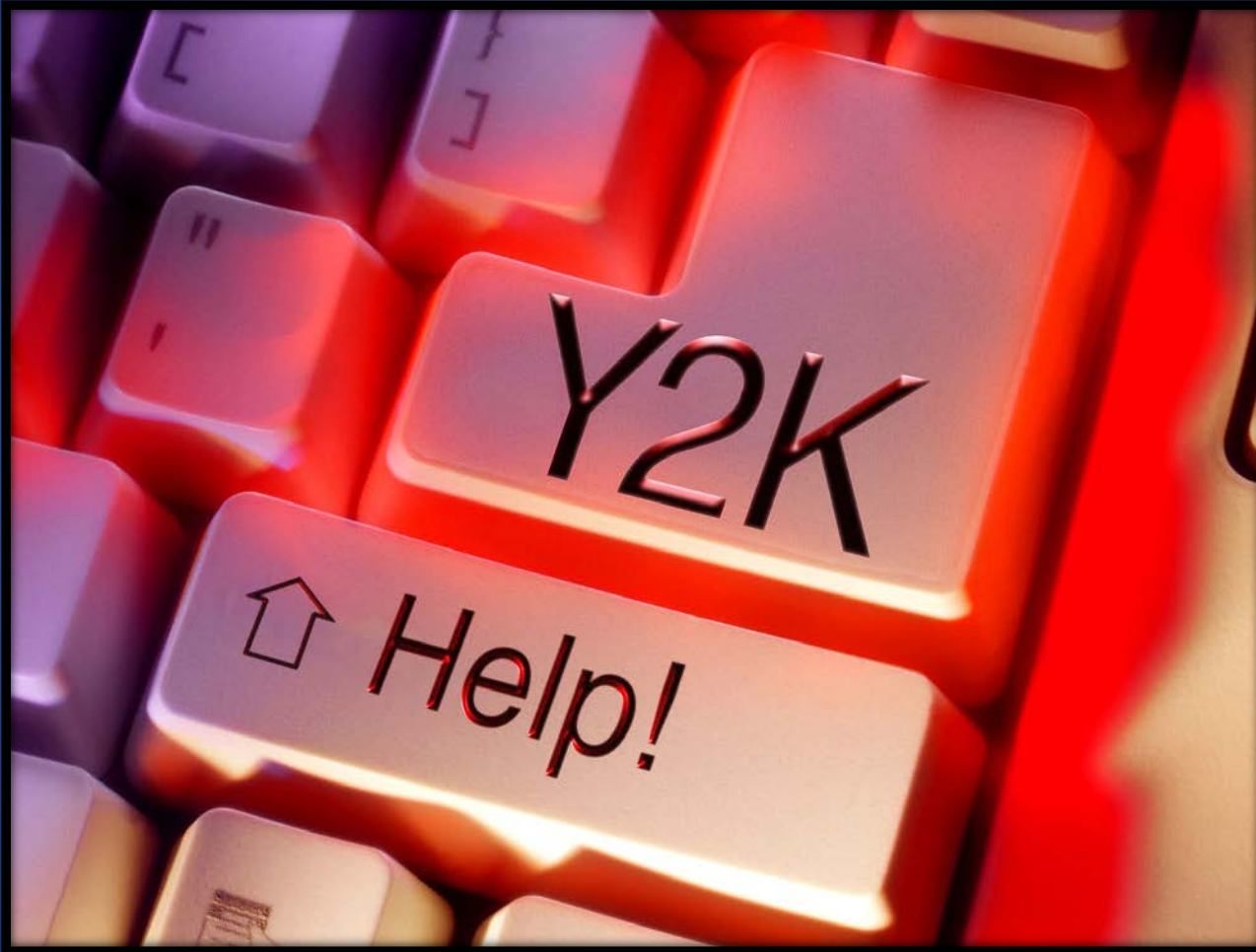
Call Crimestoppers anonymously on 0800 555 111



The 1980's-1990's Anti-Drug Campaign



Turn of the Century...



Let's Define

- **Gateway Drug:** A habit-forming drug that may lead to the use of other addictive drugs
- **Opium:** A liquid derivative (sap) from the plant “*Papaver somniferum*” or Opium Poppy
- **Opiate:** Traditionally, a drug that comes from opium
- **Opioid:** Drugs that are entirely or partially synthetic, or manmade, and mimics the effects of opiates



Gateway Drugs



“Alcohol and drug abuse is one of the fastest growing healthcare problems for Americans 60 years and older.” - SAMHSA (Substance Abuse and Mental Health Services Administration)



Opiates and Opioids (Most Commonly Abused)

- Morphine
- Codeine
- Fentanyl
- Meperidine
- Oxycodone
- Hydrocodone
- Hydromorphone
- Oxymorphone
- Heroin



Virginia Law Regarding Drugs and Drug Crimes



The Law and Prescription Drugs

Drug Crimes (Code of Virginia § 18.2-250):

- **Possession** – when a person possesses any controlled substance without a valid prescription.
- **Distribution** – when a person sells, provides, gives away, delivers, or distributes a controlled substance.
- **Manufacturing** – when a person produces a controlled substance without legal authorization or possesses chemicals used in the manufacture of a controlled substance with intent to manufacture.



Other Important Laws To Know

- **Misuse (§ 18.2-250)**
 - It is illegal for “any person knowingly or intentionally to possess a controlled substance unless the substance was obtained directly from, or pursuant to, a valid prescription or order of a practitioner.”
- **Good Samaritan (§ 18.2-251.03)**
 - Someone who seeks or obtains emergency medical attention for himself or for another individual because of a drug or alcohol-related overdose in progress may be protected from being convicted for certain possession or intoxications crimes if the person reports an overdose to a firefighter, EMS personnel, or a law enforcement officer.
- **Prescription Monitoring Program (PMP) (§ 54.1-25.2)**
 - (**§ 54.1-2522.1**) Any prescriber who is licensed in the Commonwealth to treat human patients and is authorized... to issue a prescription for a covered substance shall be registered with the Prescription Monitoring Program by the Department of Health Professions.



Biochemistry And The Transition To Opioids



Acetaminophen and Pain

- Prostaglandins (biochemicals) cause inflammation and swelling
- This drug elevates our pain threshold by producing an enzyme (cyclooxygenase)
- Effective at relieving pain and fever
- Works in the body's CNS to stop pain
- Processed by the liver
- Treats mild to moderate pain



Ibuprofen and Pain

- Prostaglandins (biochemicals) cause inflammation and swelling
- Effective at relieving inflammation, pain, and fever
- Almost completely metabolized (little to no unchanged drug in urine)
- Processed by the liver and kidney
- Treats mild to moderate pain



Opioids and Pain

- **Binds to opiate receptors** in the brain, spinal cord, and other locations in the body
- **Mimics the effects** of naturally occurring pain-relieving chemicals
- By binding, they **block the perception** of pain
- **Treats severe pain**

Often, users start by misusing prescription drugs, then resort to stronger substances when it becomes harder to obtain the prescription medications to which they've become addicted.



Experiment



Where Is Glinda?

(What Oz Never Told Us)



Fentanyl

- A powerful, high potency synthetic opioid
- Similar to morphine, but 50-100x more potent
- Used to treat patients with chronic pain who are tolerant to other opioids
- Rx – Actiq, Duragesic, Sublimaze (May be injected, used by transdermal patch, or lozenge)
- Street – Apache, China Girl, China White, Dance Fever, Friend, Goodfella, Jackpot, Murder 8, TNT, Tango and Cash (powder, blotter paper, poly-drug mixture, heroin substitute. May be swallowed, snorted, or injected)



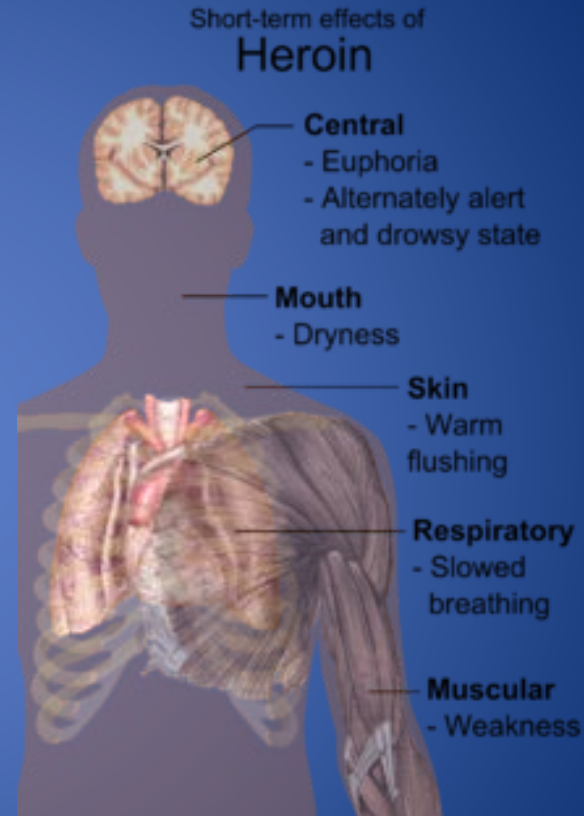
Carfentanyl

- In 1974, synthesized by Janssen Pharmaceuticals
- 10,000x stronger than morphine
- 100x stronger than fentanyl
- Due to potency, manufactured to serve as a tranquilizer for large animals (elephant)
- Colorless and odorless in liquid form
- Undetectable to recreational drug users
- Poly-drug mixtures
- Can be absorbed on skin (**DO NOT USE HAND SANITIZER**)



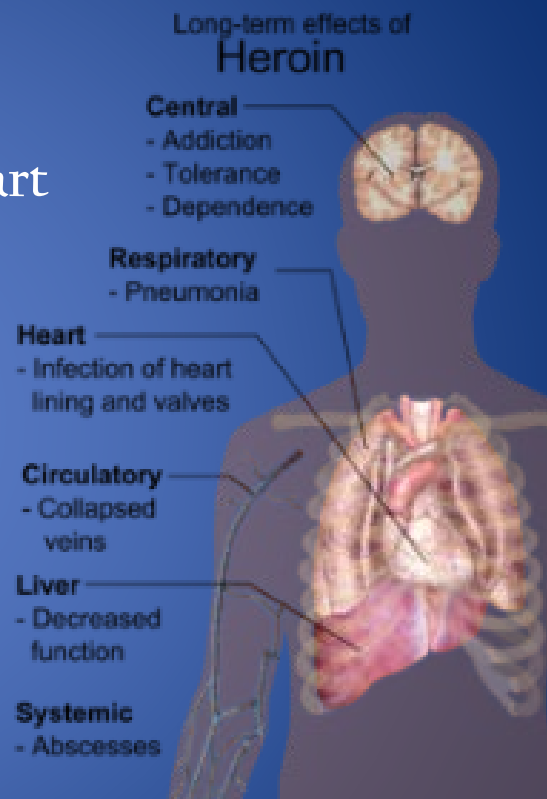
A Body Suffering Short Term

- Euphoria
- Warm flushing of the skin
- Dry mouth
- Heavy feelings in hands and feet
- Clouded thinking
- Alternated wakeful and drowsy states
- Itching
- Nausea
- Vomiting
- Slowed breathing and heart rates

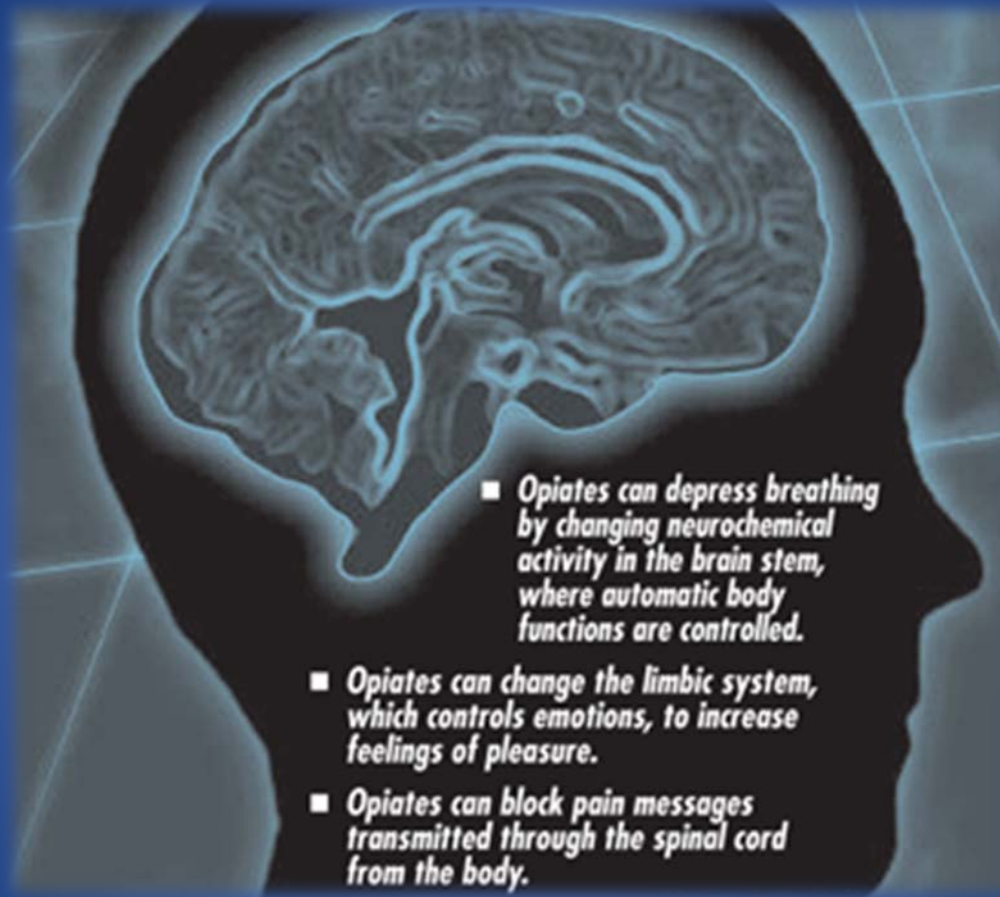


A Body Suffering Long Term

- Collapsed veins
- Abscesses
- Infection of the lining and valves in the heart
- Constipation and stomach cramps
- Liver or kidney disease
- Pneumonia
- Possible HIV/Hepatitis infections
- Pulmonary edema (fluid in the lungs)
- Muscle weakness
- Poor dental health
- Decreased sexual function
- Open wounds and scars



How Opiates Affect The Brain



Effects Based on Routes of Delivery

HOW DOES HEROIN WORK IN THE BODY?



You take heroin.



Heroin enters the bloodstream in seconds. Then, the heart pumps the blood throughout the body, carrying the drug with it.



In the brain, heroin undergoes several chemical reactions and changes back into morphine. Then, it binds rapidly to the opioid receptors to cause euphoria, pain relief, and diminished anxiety.



Heroin undergoes extensive first-pass metabolism in the liver before entering the body's circulation.



Heroin has an extremely rapid half-life of 2-6 minutes and is eliminated mainly through the urinary tract. 7% is excreted as unchanged morphine; 50-60% as glucuronides.



addictionblog.org

ADMINISTRATION ROUTES AND ONSET



Intravenous Injection

7

seconds



Intramuscular Injection

5-8

minutes



Smoking & Sniffing

10-15

minutes



Opioid Withdrawal

- Restlessness
- Muscle and bone pain
- Insomnia
- Diarrhea
- Vomiting
- Cold flashes with goose bumps
- Leg movements
- Body aches
- Depression
- Sweats
- Hypertension
- Fevers
- Extreme cravings
- Agitation
- Stomach cramps



Opioid Overdose

- Slow breathing
- Loss of consciousness
- Unresponsive to stimulus
- Awake, but unable to talk
- Vomiting
- Body is limp
- Slow, erratic, or absent heartbeat
- Blue lips and fingernails
- Cold, damp skin
- Shaking
- “Death rattle” (choking/gurgling sounds; mistaken for snoring)



Seniors and Prescription Drugs

- Americans 65 years of age and older make up less than 15% of the population, but they consume more than 30% of all prescribed medications.
- America has 4% of the world's population, but consumes 80% of the world's opioids.
- An enormous amount of painkillers are distributed to seniors.

WHY???



Seniors and the Greater Risk

- Seniors have **more medical issues**, resulting in more medication prescriptions. According to the National Institutes of Health, **pain** is the number one reason Americans today seek medical attention.
- Prescription pain medications can easily **become less effective** over time, due to tolerance; therefore seniors seeking relief may **increase medication dosages**.
- Seniors might **visit multiple doctors**, with differing complaints, leading to multiple prescriptions where the individual doctors are unaware.
- As we age, we **decrease the ability to metabolize**.
- Seniors are especially vulnerable to serious drug-related effects that arise from **poly-drug** use.



Senior Statistics

- “Prevention Tactics” periodical reports that **Prescription Drug Abuse** is present in 12 to 15% of elderly individuals who seek medical attention.
- **Addiction among people 65 and over is often underestimated and under-diagnosed.**
- According to Johns Hopkins Medical School, the number of Americans over the age of 50 who abuse prescription drugs is projected to rise to **2.7 million this year**. This is a 190% increase from the 2001 figure of 910,000.

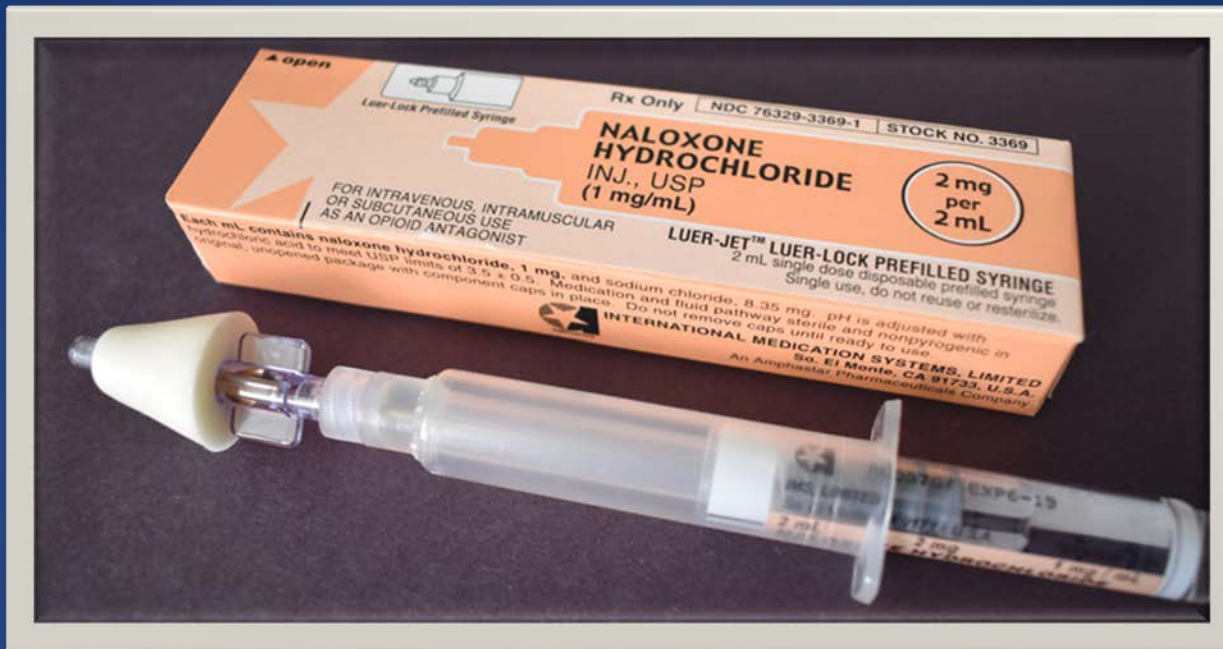


Potential Triggers for Addiction in Mature Adults

- Retirement
- Death of a family member, spouse, close friend, or pet
- Loss of income or financial strains
- Relocation or placement in a nursing home
- Trouble sleeping
- Family conflict
- Mental or physical health decline
 - Depression
 - Memory loss
 - Major surgeries



Naloxone



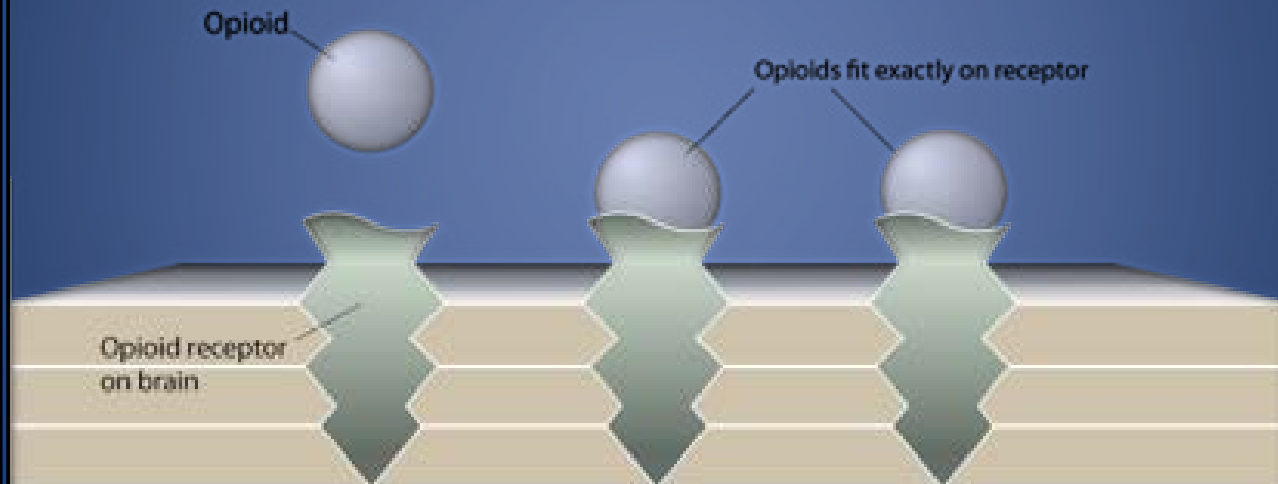
A medication which quickly reverses opioid overdoses



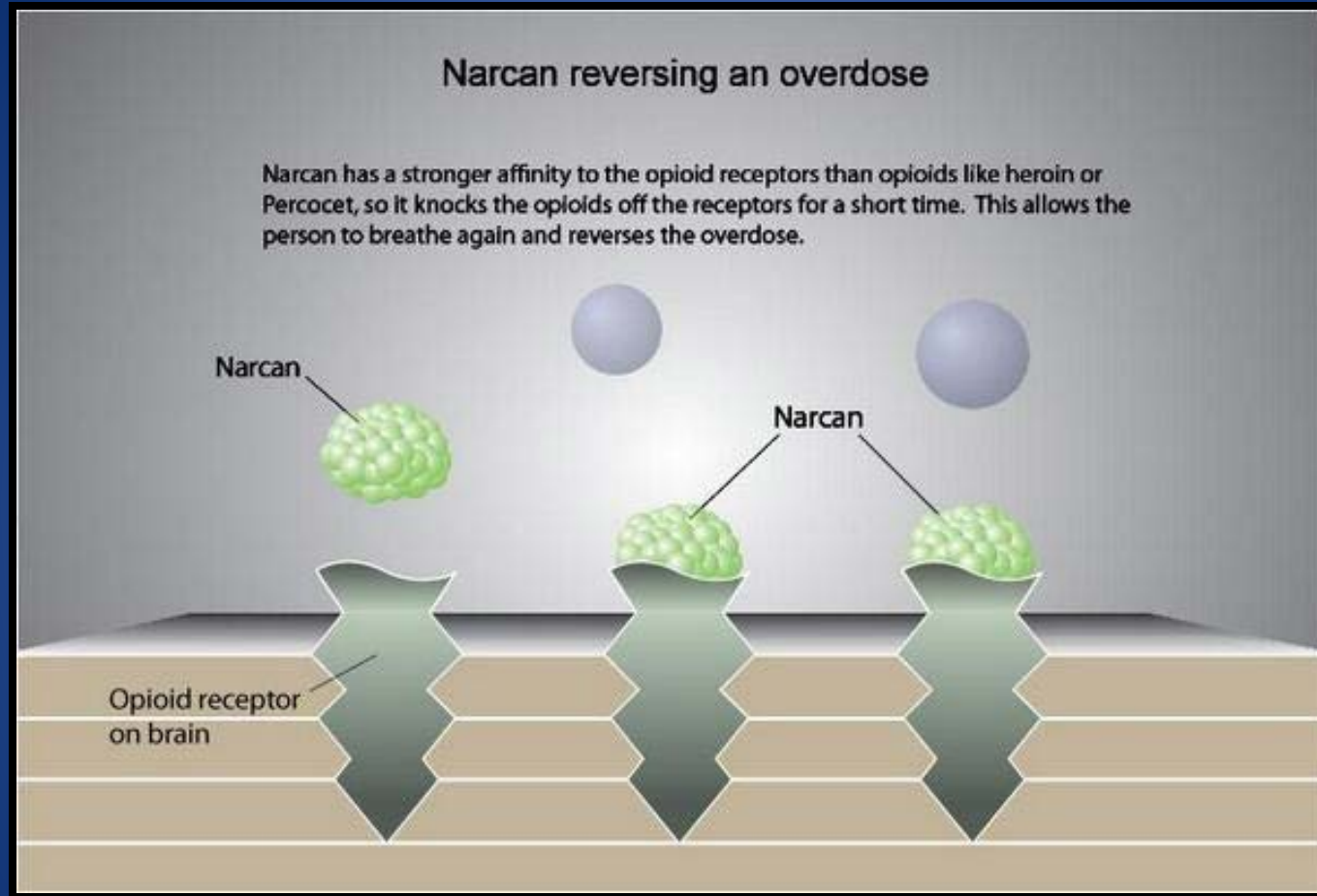
Opioid Receptors

What is an opioid overdose ?

The brain has many, many receptors for opioids. An overdose occurs when too much of any opioid, like heroin or Oxycontin, fits in too many receptors slowing and then stopping the breathing.



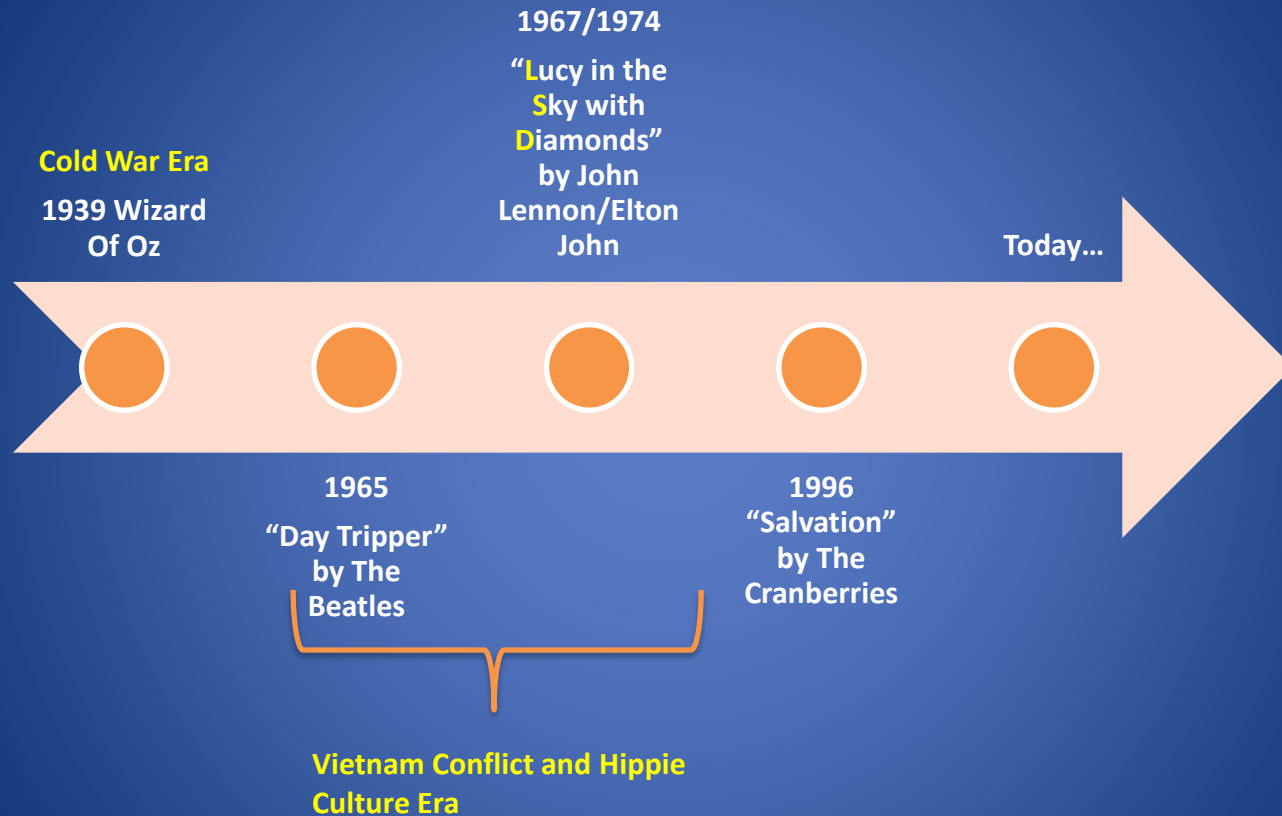
How Naloxone (Narcan) Works



More Messages...



Messages And Song Lyrics Through Time



Messages Remembered...

**Ok, Just a little pinprick
There'll be no more
(Aaahh..)
But you may feel a little
sick**

“Comfortably Numb” ~Pink Floyd



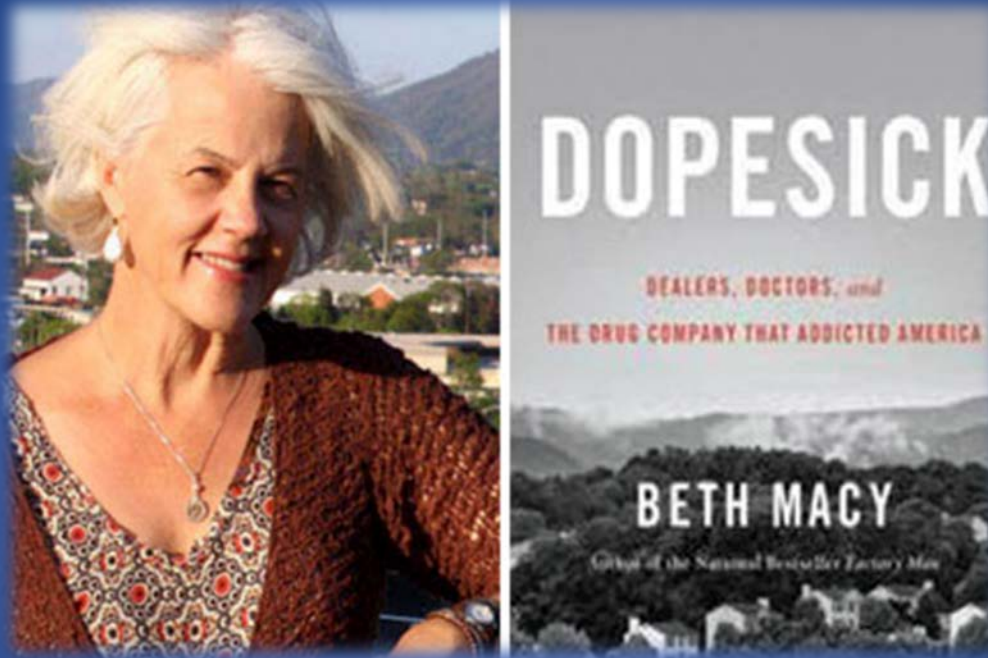
Hidden In Plain Sight



Diversion Safes



You Decide...



The Faces Of Addiction



"It's so good, don't even try it once." ~ A young heroin abuser



The Faces Of Addiction



November 13, 1947 – January 18, 2020



My Dad



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Final Thoughts



Sources

Available Upon Request

