

Overview of Addiction

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**Opioid
Response
Network
STR-TA**

Working with communities to address the opioid crisis.

- ✧ SAMHSA's State Targeted Response Technical Assistance (STR-TA) grant created the *Opioid Response Network* to assist STR grantees, individuals and other organizations by providing the resources and technical assistance they need locally to address the opioid crisis .
- ✧ Technical assistance is available to support the evidence-based prevention, treatment, and recovery of opioid use disorders.

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Working with communities to address the opioid crisis.

- ✧ The Opioid Response Network (ORN) provides local, experienced consultants in prevention, treatment and recovery to communities and organizations to help address this opioid crisis.
- ✧ The ORN accepts requests for education and training.
- ✧ Each state/territory has a designated team, led by a regional Technology Transfer Specialist (TTS), who is an expert in implementing evidence-based practices.



Contact the Opioid Response Network

- ✦ To ask questions or submit a request for technical assistance:
 - Visit www.OpioidResponseNetwork.org
 - Email orn@aaap.org
 - Call 401-270-5900





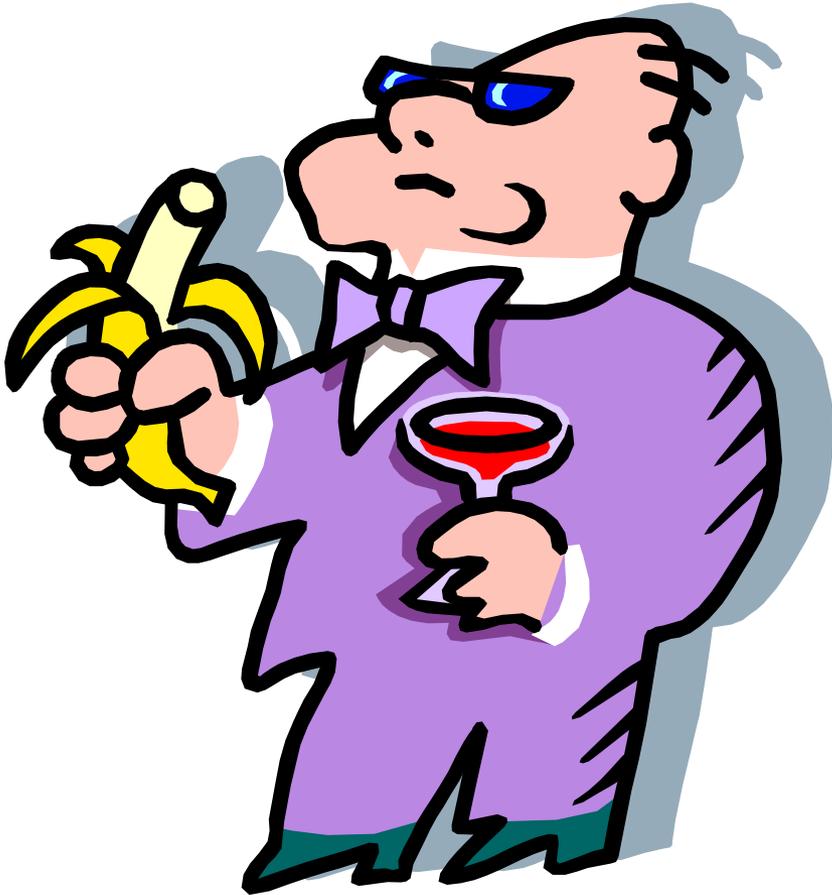
Overview of Addiction

Development of Addiction

- ✧ No one wants to become an addict
- ✧ Experimentation with Gateway Drugs
 - Family values, peer pressure
- ✧ Underlying aspects lead to continued use
 - Genetic vulnerabilities, self-medication
- ✧ Development of consequences
 - Tolerance, withdrawal
 - Psychological dependence
- ✧ Continue use despite adverse consequences
 - Medical, psychiatric, social problems



Addiction is an equal opportunity disease



- ✦ Erroneous stereotypes
- ✦ All social strata
- ✦ All races
 - different susceptibilities
- ✦ All age groups
- ✦ 10% of population have problems due to substance abuse

Risk factors for addiction

✧ Genetics

✧ Psychological

- Childhood abuse
- Depression
- Anxiety

✧ Family

- Parental divorce
- Low expectations

✧ Social

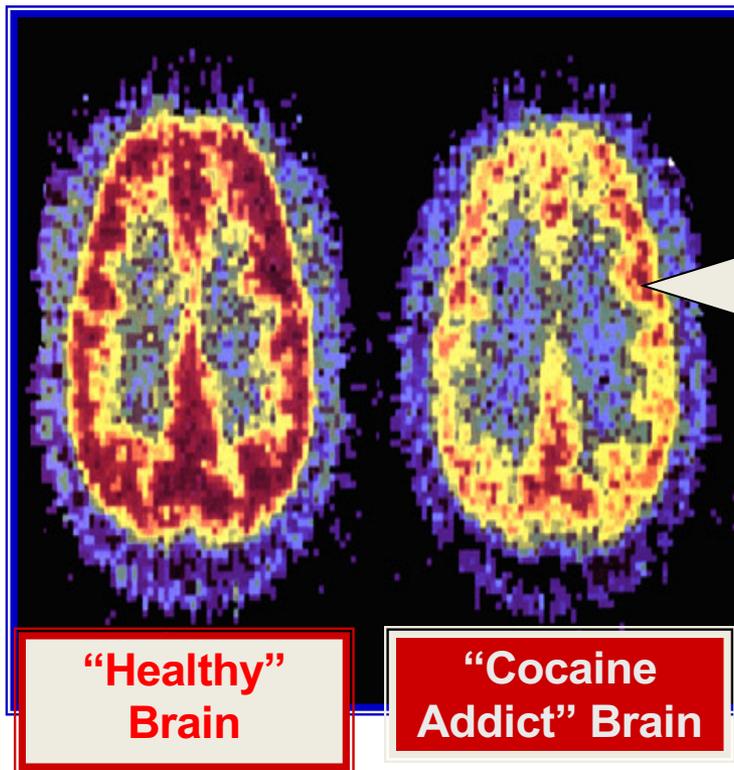
- Economic deprivation
- Availability of drugs
 - Alcohol and tobacco
 - Illicit drugs

✧ Peers

- Friends who use drugs
- Friends' positive attitude toward drugs



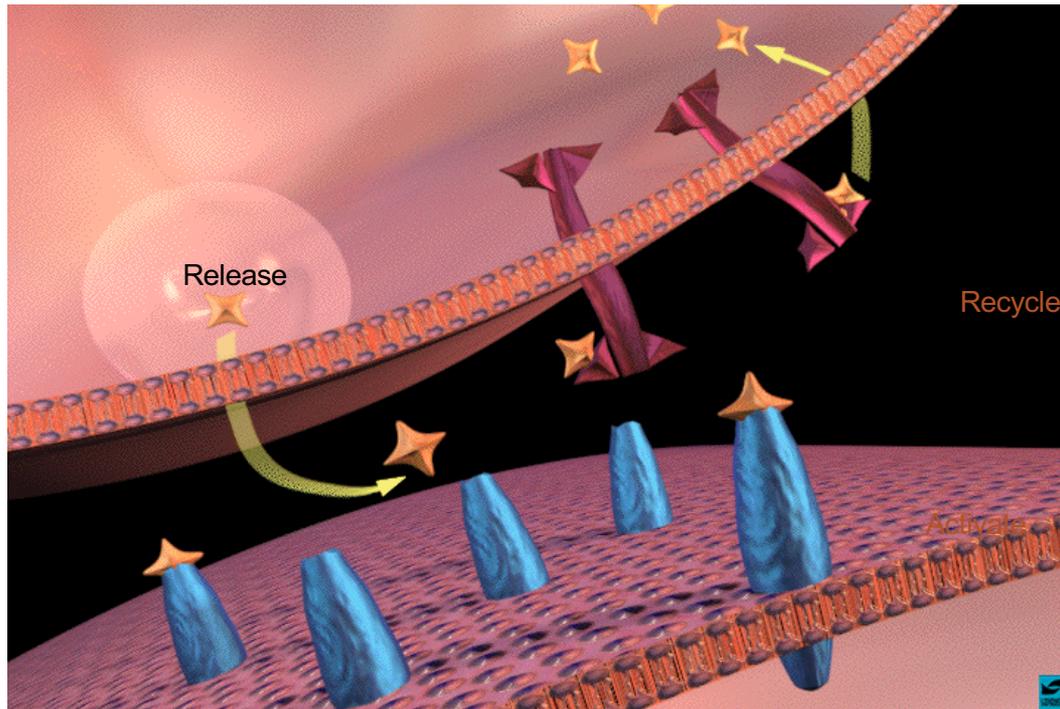
Addiction *is* a Brain Disease



**Prolonged Use
Changes
the Brain**

**in
Fundamental
and Lasting
Ways**

Dopamine = REWARD



Your Brain on Drugs

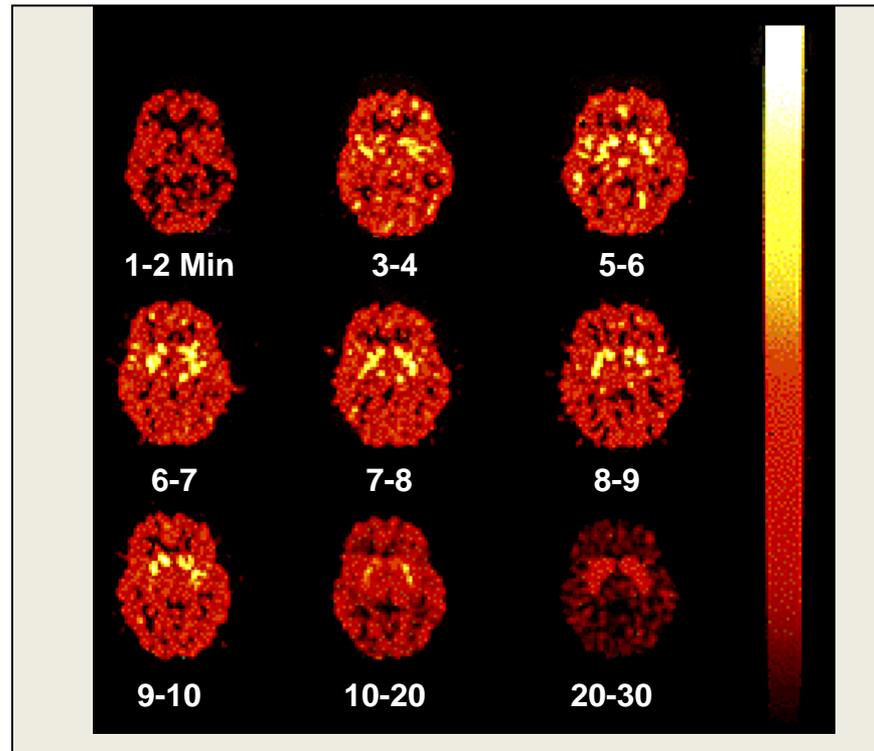


Photo courtesy of Nora Volkow, Ph.D. Mapping cocaine binding sites in human and baboon brain in vivo. Fowler JS, Volkow ND, Wolf AP, Dewey SL, Schlyer DJ, Macgregor RIR, Hitzemann R, Logan J, Bendreim B, Gatley ST. et al. *Synapse* 1989;4(4):371-377.

Your Brain After Drugs

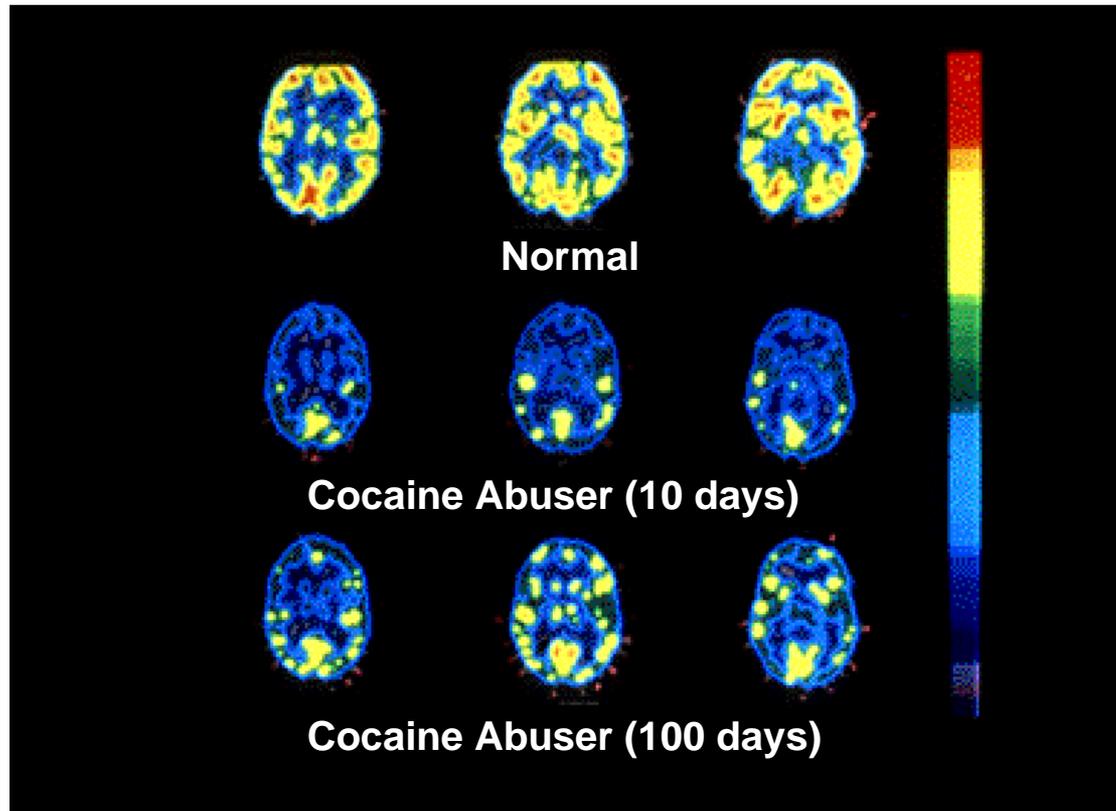


Photo courtesy of Nora Volkow, Ph.D. Volkow ND, Hitzemann R, Wang C-I, Fowler JS, Wolf AP, Dewey SL. Long-term frontal brain metabolic changes in cocaine abusers. *Synapse* 11:184-190, 1992; Volkow ND, Fowler JS, Wang G-J, Hitzemann R, Logan J, Schlyer D, Dewey S, Wolf AP. Decreased dopamine D2 receptor availability is associated with reduced frontal metabolism in cocaine abusers. *Synapse* 14:169-177, 1993.

The Memory of Drugs

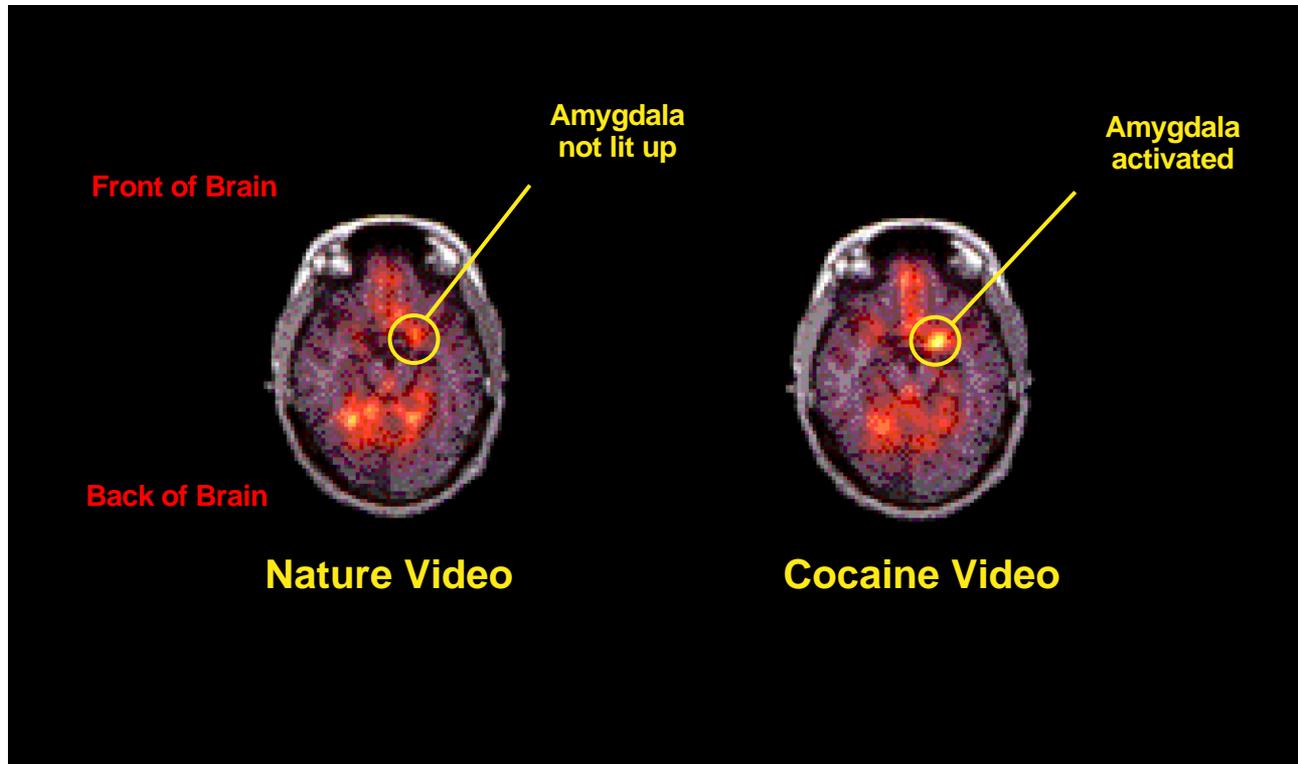
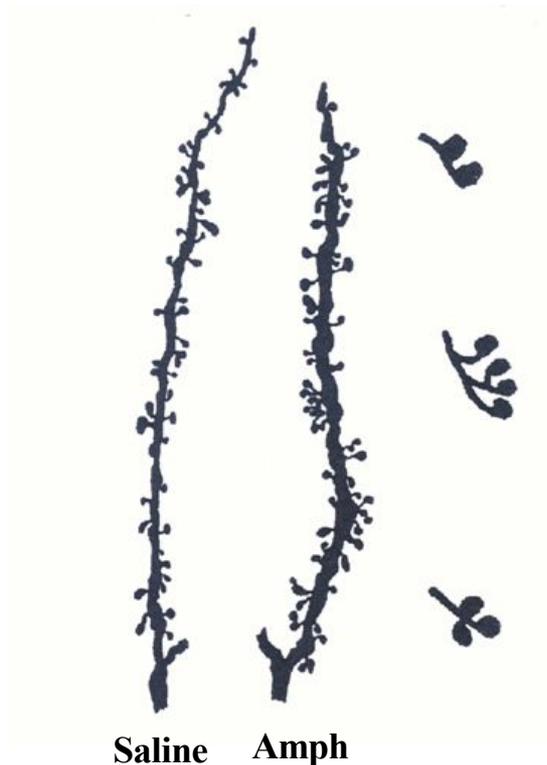


Photo courtesy of Anna Rose Childress, Ph.D.

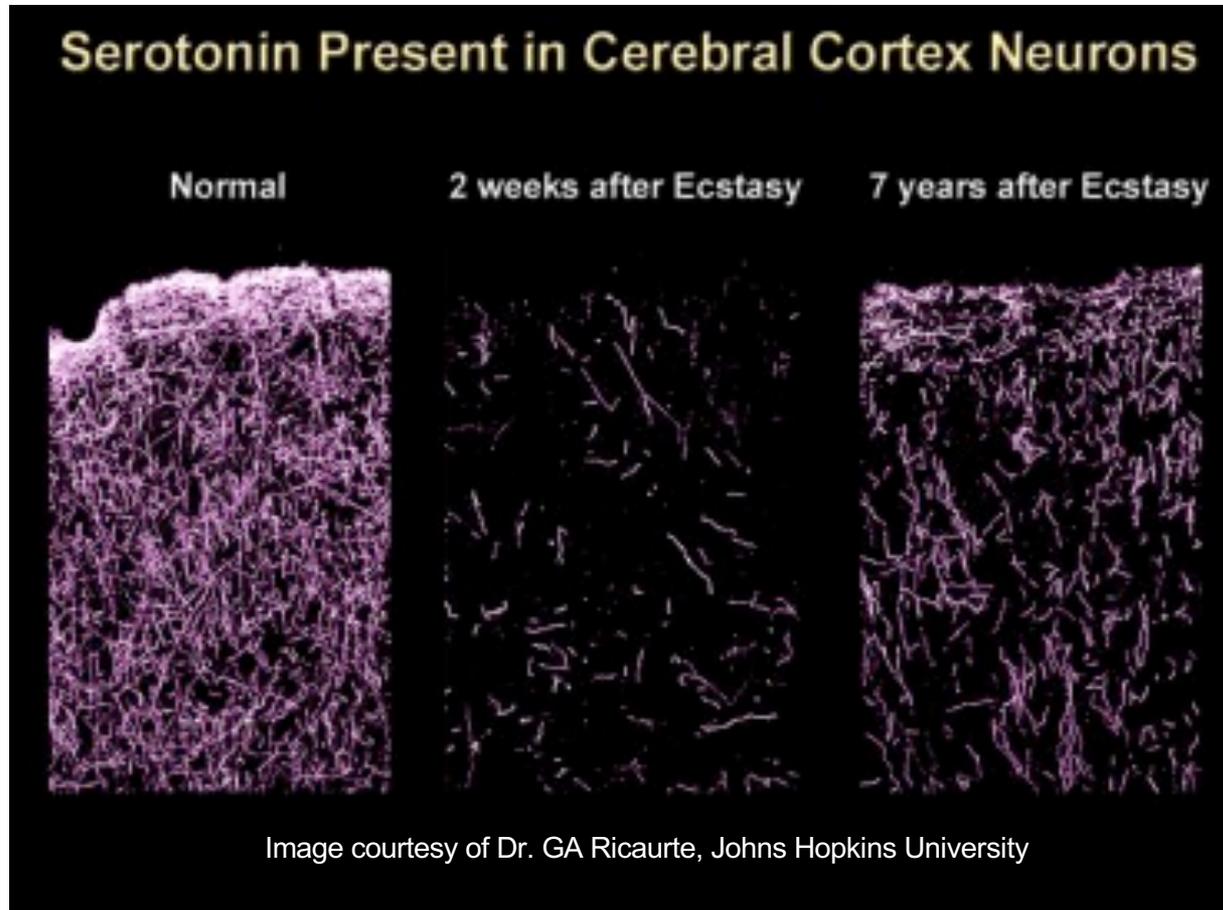
Changes in Brain Cells



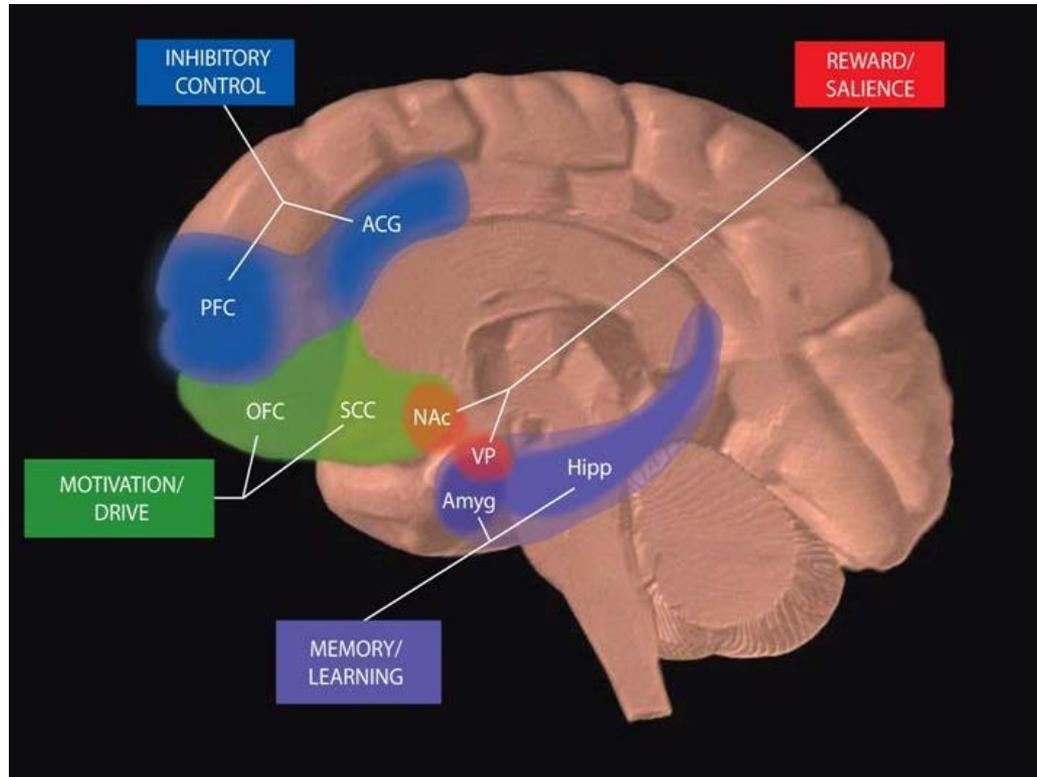
- ✧ **Repeated exposure to amphetamine changes density of dendritic spines on dopamine neurons in the nucleus accumbens area of the brain**

Robinson & Kolb, Journal of Neuroscience, Volume: 1997

Long-term Changes



Brain Circuits Involved In Addiction



Brain changes resulting from prolonged use of drugs affect each of these brain areas and the behaviors they control

Poll Question

Do you want to learn more about the neurobiology of addiction?

A. I already know enough about this topic

B. I am not interested in learning more about this

C. There are other topics that interest me more

D. Yes, I want to learn more about neurobiology



DSM-5 Criteria Substance Use Disorder

- ✧ Use in larger amounts or for longer periods than intended
- ✧ Persistent desire or unsuccessful efforts to cut down
- ✧ Great deal of time spent on acquiring, using, or recovering from effects of substance
- ✧ Craving
- ✧ Failure to fulfill major role obligations (work, school, home)
- ✧ Give up important activities (social, occupational, recreational)
- ✧ Use in situations in which it is physically hazardous
- ✧ Continued substance use despite social or interpersonal problems
- ✧ Use despite worsening physical or psychological problems
- ✧ Tolerance
- ✧ Withdrawal syndrome



What drugs are being used?

- ✧ Alcohol
- ✧ Nicotine
- ✧ Marijuana
- ✧ Prescription drug abuse
- ✧ Heroin
- ✧ Cocaine and meth
- ✧ Hallucinogens
- ✧ Inhalants
- ✧ Designer drugs



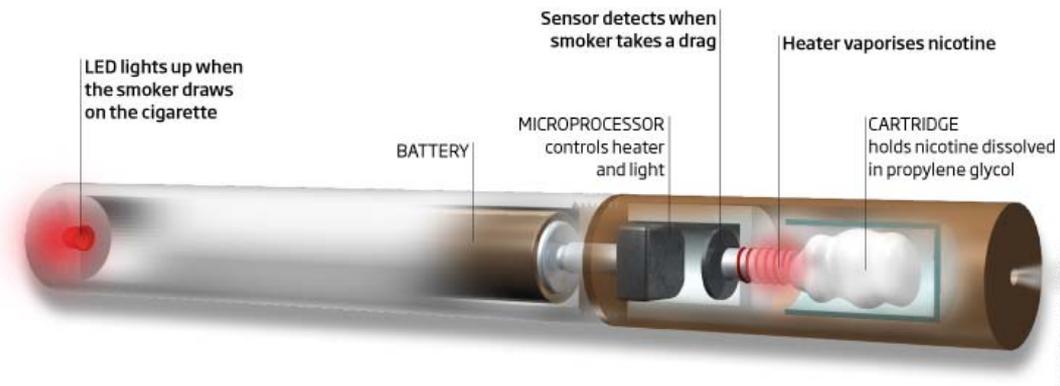
Alcohol



- ✧ CNS depressant
- ✧ Disinhibition
 - Depress inhibitions first
 - Reduce anxiety
 - Fun at parties
- ✧ Socially acceptable
- ✧ Readily available
 - Not illegal
 - Obtain from older peers

Nicotine

- ✦ Cigarettes, cigars, pipes
 - Many different harmful compounds
- ✦ Smokeless tobacco
 - “snuff,” “chew”
- ✦ Electronic cigarettes
 - Less harmful than tobacco, but more dangerous than air
 - Can be abused



Cannabis



- ✦ Marijuana, pot, weed
- ✦ Widely popular, easily available, not illegal in most states
- ✦ Active ingredient: THC (tetrahydrocannabinol)
- ✦ Relaxation, hallucination
- ✦ Impairment in learning
- ✦ Panic attacks

Opioids

✧ Examples

- Morphine, OxyContin, Percocet
- Heroin

✧ Painkillers

✧ Euphoria, disconnection, sedation

✧ Negative effects

- Nausea, constipation, itching
- Excessive drowsiness
- Slow breathing



Stimulants



- ✦ Examples
 - Cocaine
 - Methamphetamine
 - Adderall and Ritalin
 - Ecstasy
 - Caffeine
 - “bath salts”
- ✦ Enhanced concentration, alertness
- ✦ Edginess, paranoia, psychosis
- ✦ Heart attack, stroke

Hallucinogens

- ✧ LSD, mescaline, psilocybin
- ✧ Perceptual distortions
 - Hallucinations
 - Visual effects
- ✧ “Bad trip”
 - Severe anxiety
- ✧ Adverse effects
 - Psychosis
 - High blood pressure



Volatile Inhalants



- ✧ Common & legal
- ✧ Examples
 - airplane glue (epoxies)
 - Freon (“freebies”)
 - carbon tetrachloride
 - amyl & butyl nitrite
 - nitrous oxide
 - propellant (spraypaint)
- ✧ Effects similar to alcohol
- ✧ Adverse effects
 - Low blood counts, nerve damage, kidney failure

Designer Drugs

- ✦ Newer versions of older drugs
- ✦ Use by young adults
- ✦ Not detected on current drug screens
- ✦ More severe medical and psychiatric effects
- ✦ Synthetic cannabinoids
 - Spice, K2, Kush
 - Similar to marijuana
- ✦ Bath salts
 - Ivory Wave, Vanilla Sky
 - Flakka
 - Similar to Ecstasy (MDMA)
- ✦ Synthetic hallucinogens
 - N-bomb, smiles
 - Similar to LSD



Poll Question

Which drug or class do you want to learn more about?

A. Alcohol

B. Nicotine/tobacco

C. Cannabinoids/marijuana

D. Opioids

E. Stimulants

F. Hallucinogens and Inhalants

G. Only a few of these

H. None of the above



Clues to addiction in client assessment

- ✧ Family history of drug use
 - ⦿ Previous suicide attempt
 - ⦿ Delinquency
- ✧ School drop out
- ✧ Smoking
 - Other tobacco product use (e-cigarette, smokeless)
 - Already established an addiction



How can I tell if someone has a problem?



- ✧ Illicit drug use
- ✧ Prescription medication
 - Taking other than as prescribed
 - Taking a medication not prescribed for them
- ✧ Alcohol
 - Drinking to cope with stress or feelings



What to look for

- ✧ Evasive behavior
- ✧ Missing activities
- ✧ Hang out with friends who use
- ✧ Reversal of sleep-wake cycle (staying up all night)
- ✧ Worsening of personal hygiene
- ✧ Appears intoxicated
- ✧ Legal problems



Screening Tools



- ✧ CAGE Questions
 - Lifetime for alcohol
 - CAGE-AID for drugs
- ✧ CRAFFT
 - Adolescent risk behavior
- ✧ DAST
 - Can be done on paper
- ✧ PHQ
 - Multiple diagnoses

NIDA Quick Screen tool

- ✧ In the past year, how often have you
 - Had 4 or more drinks per day?
 - Used tobacco products?
 - Used prescription drugs for nonmedical purposes?
 - Used illegal drugs?

- ✧ Responses:
 - Never
 - Once or twice
 - Monthly
 - Weekly
 - Almost daily
 - Daily



Poll Question

Do you want to learn more about screening and assessment for addiction?

A. I already know enough about this topic

B. I am not interested in learning more about this

C. There are other topics that interest me more

D. Yes, I want to learn more about screening



Types of treatment

- ✦ Detoxification
- ✦ Outpatient counseling
- ✦ Intensive outpatient
- ✦ Inpatient
- ✦ Residential
- ✦ 12-Step groups
- ✦ Medication for Addiction Treatment (MAT)



Twelve-Step Groups

12 Steps

- (1) *We admitted we were powerless over alcohol – that our lives had become unmanageable.*
- (2) *Came to believe that a power greater than ourselves could restore us to sanity.*
- (3) *Made a decision to turn our will and our lives to the care of God as we understood him.*
- (4) *Made a searching and fearless moral inventory of ourselves.*
- (5) *Admitted to God, to ourselves, and to another human being the exact nature of our wrongs.*
- (6) *Were entirely ready to have God remove all these defects of character.*
- (7) *Humbly asked Him to remove our shortcomings.*
- (8) *Made a list of all persons we had harmed and became willing to make amends to them all.*
- (9) *Made direct amends to such people wherever possible, except when to do so would injure them or others.*
- (10) *Continued to take personal inventory and when we were wrong promptly admitted it.*
- (11) *Sought through prayer and meditation to improve our conscious contact with God as we understood him, praying only for knowledge of His will and the power to carry that out.*
- (12) *Having had a spiritual awakening as the result of these steps, we tried to carry this message to alcoholics and to practice these principles in all our affairs.*

These steps are from the book, "Alcoholics Anonymous."

- ✧ Alcoholics Anonymous
- ✧ Narcotics Anonymous
- ✧ Group format
- ✧ Anonymous
- ✧ No cost
- ✧ No affiliations or endorsement
- ✧ Different groups have different characteristics

Addiction Counseling

- ✧ Motivational Interviewing
- ✧ Network therapy
- ✧ Family therapy
- ✧ Supportive psychotherapy
- ✧ Building Social Networks
- ✧ Acceptance and Commitment
- ✧ Mindfulness
- ✧ Twelve-Step facilitation
- ✧ Perceptual Adjustment Therapy



Treatment Settings

- ✧ Outpatient
 - Individual and/or group counseling, frequency varies
- ✧ Intensive outpatient
 - Individual and group sessions multiple days/week
- ✧ Residential
 - Restricted environment, 2 weeks to several months
- ✧ Therapeutic Community
 - Long-term, learn trade, become peer counselor
- ✧ Primary Care
 - Brief intervention within context of office visit



Medications for Addiction Treatment

✧ Nicotine

- Patch, gum, lozenge
- Zyban, Chantix



✧ Alcohol

- Antabuse
- Acamprosate
- Naltrexone (Vivitrol, ReVia)



✧ Opioids

- Methadone, buprenorphine
- Naltrexone



Poll Question

Do you want to learn more about treatment for addiction?

A. I already know enough about this topic

B. I am not interested in learning more about this

C. There are other topics that interest me more

D. Yes, I want to learn more about treatment



Referral to Treatment



"There's no easy way I can tell you this, so I'm sending you to someone who can."

- ✦ Refer high-risk patients for a full assessment
- ✦ If nearby treatment resources are not available, provide
 - Support group contact information
 - Counseling resources
 - Clergy
 - Mental health referrals



Referral for treatment

- ✦ SAMHSA Treatment locator website
 - www.findtreatment.samhsa.gov
- ✦ American Society of Addiction Medicine
 - www.asam.org
- ✦ American Academy of Addiction Psychiatry
 - www.aaap.org
- ✦ National Association for Alcohol and Drug Abuse Counselors
 - www.naadac.org



Children & Addiction



- ✧ Young children don't have to use drugs themselves to be affected
 - Child neglect & abuse
 - Loss of family structure
 - Inappropriate role models
 - Impair intellectual, social, & ethical behavior



Child Protective Services

- ✦ Federal Child Abuse Prevention & Treatment Act

- Requires states to have policies & procedures to notify CPS of substance-exposed newborns

- ✦ Positive drug screen in mother or newborn warrants evaluation by CPS

- ✦ CPS workers are responsible for investigation of risk to the child

- Other clinicians are not responsible for optimizing the home environment

TEXAS
Department
of Family and
Protective Services



Poll Question

Do you want to learn more about children and family issues in addiction?

A. I already know enough about this topic

B. I am not interested in learning more about this

C. There are other topics that interest me more

D. Yes, I want to learn more about family issues



Summary

- ✧ Addiction is a brain disease
- ✧ There are several different classes of drugs with different effects and side effects
- ✧ Screening for substance use is important
- ✧ Behavioral and medication therapy is effective for treatment of addiction
- ✧ There are issues that are important to consider for families and children dealing with addiction



References

- ✦ Weaver MF: ***Addiction Treatment***. Carlat Publishing, 2017
- ✦ Weaver MF, et al: *Role of the primary care physician in problems of substance abuse*. Archives of Internal Medicine 1999;159:913
- ✦ Weaver, M.F., Jones, H.E., Wunsch, M.J.: *Alcohol and Other Drug Use During Pregnancy: Management of the Mother and Child*. In S. Miller, D. Fiellin, R. Saitz (Eds.), **Principles of Addiction Medicine**, 6th Ed., Chevy Chase, MD: American Society of Addiction Medicine, Inc., pp 1314-1332, 2019.



Questions?

