

Gambling and Sex Addiction: Brain Disease or Weakness?

Scott Hambleton, M.D.
Medical Director
Mississippi Professionals Health Program

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Objectives

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1. Review Diagnosis of Process Addictions
2. Discuss Addiction as a Brain Disease
3. Compare Process Addictions versus Addiction to Substances

Addiction: Definition



Addiction is a primary, chronic disease with genetic, psychosocial, and environmental factors influencing its development and manifestations. The disease is often progressive and fatal.

American Society of Addiction Medicine, 2001

Is “Addiction” a Legitimate Diagnosis? *

- “Addiction” is NOT a medical diagnosis in DSM-IV-TR
- Sex addiction and gambling addiction are NOT medical diagnosis in the DSM-IV-TR
- DSM-IV-TR diagnosis for gambling addiction is “Pathological Gambling, Not Elsewhere Classified”(312.31)
- First appeared in DSM-III (1980)

Process Addictions



- Process Addiction: A pathological relationship to a mood-altering *experience*
- Chemical addiction is a pathological relationship to a mood-altering *substance*

Compulsive Sexual Behavior(CSB) *

- Also known as: Hypersexuality, Erotomania, Nymphomania, Satyriasis, Hyperphilia, Paraphilia and Sexual Addiction.
- No agreement in psychiatric or psychological community regarding definition, etiology or classification:

Impulse control disorder? Mood disorder?

Obsessive/compulsive disorder?

Psychosexual developmental disorder? Addiction?

Hypersexual Disorder



Over a period of at least **six months**, recurrent and intense sexual fantasies, sexual urges, and sexual behavior in association with four or more of the following five criteria:

- (1) **Excessive time is consumed** by sexual fantasies and urges, and by planning for and engaging in sexual behavior.
- (2) Repetitively engaging in these sexual fantasies, urges, and behavior **in response to dysphoric mood** states (e.g., anxiety, depression, boredom, irritability).
- (3) Repetitively engaging in sexual fantasies, urges, and behavior in **response to stressful** life events.
- (4) Repetitive but unsuccessful **efforts to control** or significantly reduce these sexual fantasies, urges, and behavior.
- (5) Repetitively engaging in sexual behavior while disregarding the **risk for physical or emotional harm** to self or others.

Proposed DSM-V Definition, May 2013 (Reid et al., 2010)

DSM-V Changes for 2013: “Gambling Disorder”

The DSM-V work group has proposed that
Pathological Gambling be reclassified from:
Impulse-Control Disorders Not Elsewhere
Classified to: **Addiction and Related Disorders**
And to be renamed **Gambling Disorder**

Gambling Disorder

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Indicated by Five (or more) of the following:

1. Preoccupation (reliving past gambling experiences, handicapping or planning the next venture, or thinking of ways to get money with which to gamble)
2. Tolerance (increasing \$\$ to achieve the desired excitement)
3. Repeated unsuccessful efforts to control, cut back, or stop
4. Restless or irritable when attempting to cut down or stop
5. Escaping from problems or of relief of dysphoric mood (e.g., feelings of helplessness, guilt, anxiety, depression)

Gambling Disorder, cont'd *

- 6. “Chasing” - trying to win back losses
- 7. Lying to conceal the extent of involvement or losses
- 8. Jeopardized relationship, job, or education or career opportunity
- 9. “Bail Outs” - relies on other to cover debts (to relieve a desperate financial situation caused by gambling)
- Elimination of criteria 8: Illegal acts to finance gambling (forgery, fraud, theft, or embezzlement)

Profile of the Gambling Addict *

- 1% Pathological Gamblers 2% Problem Gamblers
- College students: 3-5% Problem Gamblers; 2-3% Pathological Gamblers
- 6:1 Ratio Male/female
- Males: internet, cards, sports
- Females: lottery and slots
- Risk factors: male, youth(18-24), military, low SES
- Family dysfunction (50 % w/ addiction)
- Comorbid Axis 1 Disorders
- 50% of PGs meet lifetime criteria for SUD

Profile of the Sex Addict



- 5% of the population (Fong, 2006).
- 3:1 ratio male/female (Carnes, 1998)
- Family dysfunction (80% w/ addiction)
- 82% sexually abused as children (Carnes, 1991)
- > 50% raised in rigid, emotionally disengaged family (Carnes, 1989)
- Raised in home with heightened sexual atmosphere
- Comorbid Axis 1 Disorders:
 - 50% SUD;
 - 70% Mood Disorder(Lifetime Prevalence);
 - 50-75% anxiety disorders

"Cybersex is the crack cocaine of sexual addiction."

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- Rapid escalation of amount and variety of material

- Internet provides:
Accessibility
Affordability
Anonymity



Carnes, P., Delmonico, D., Griffin, E., Moriarity, E., & Moriarity, J. (2007). In the shadow of the net: Breaking free of compulsive on-line sexual behavior, 2nd Ed. Center City, MN: Hazelden Publishing & Educational Services.

Internet Sex

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- 70% of porn traffic between 9am-5pm
- US porn revenue exceeds 6 billion \$\$
- 12-17 year olds largest consumers of internet porn
- Average first time contact is 11 years of age
- Gender:
 - 60-70% males
 - 30-40% females
- 70% of compulsive addicts use internet only or combine usage

Illegal Gambling

- Sports Betting
- Internet Gambling
 - First Internet Gambling site – 1995
 - Over 2,000 Gambling sites – 2005
 - 1,100 Casino Gambling sites
 - 700 Sports Gambling sites
 - 200 + Poker Gambling sites
 - Estimated revenue – 2006 - \$12 billion
- Others

Legal Gaming in the U.S.

	States	2007 Revenue
Casino	12	\$35.5 billion
Indian	26	\$26.0 billion
Charitable	47	\$2.2 billion
Racing	33	\$3.5 billion
Lotteries	47	\$24.8 billion
		\$92.3 billion

(Data from NCPG)

Online Poker: New Developments *

- Online poker, “Moneymaker Effect”
- FBI and Department of Homeland Security crack down on internet gambling companies

TIGER AND RACE
THE C.O.P.'S CHINA CONNECTION
ARMY RECRUITERS AND SEXUAL HARASSMENT



▶ **SEX**
▶ **DRUGS**
▶ **DRINKING**
▶ **SMOKING**

Scientists are discovering the chemical secret to

HOW WE GET ADDICTED

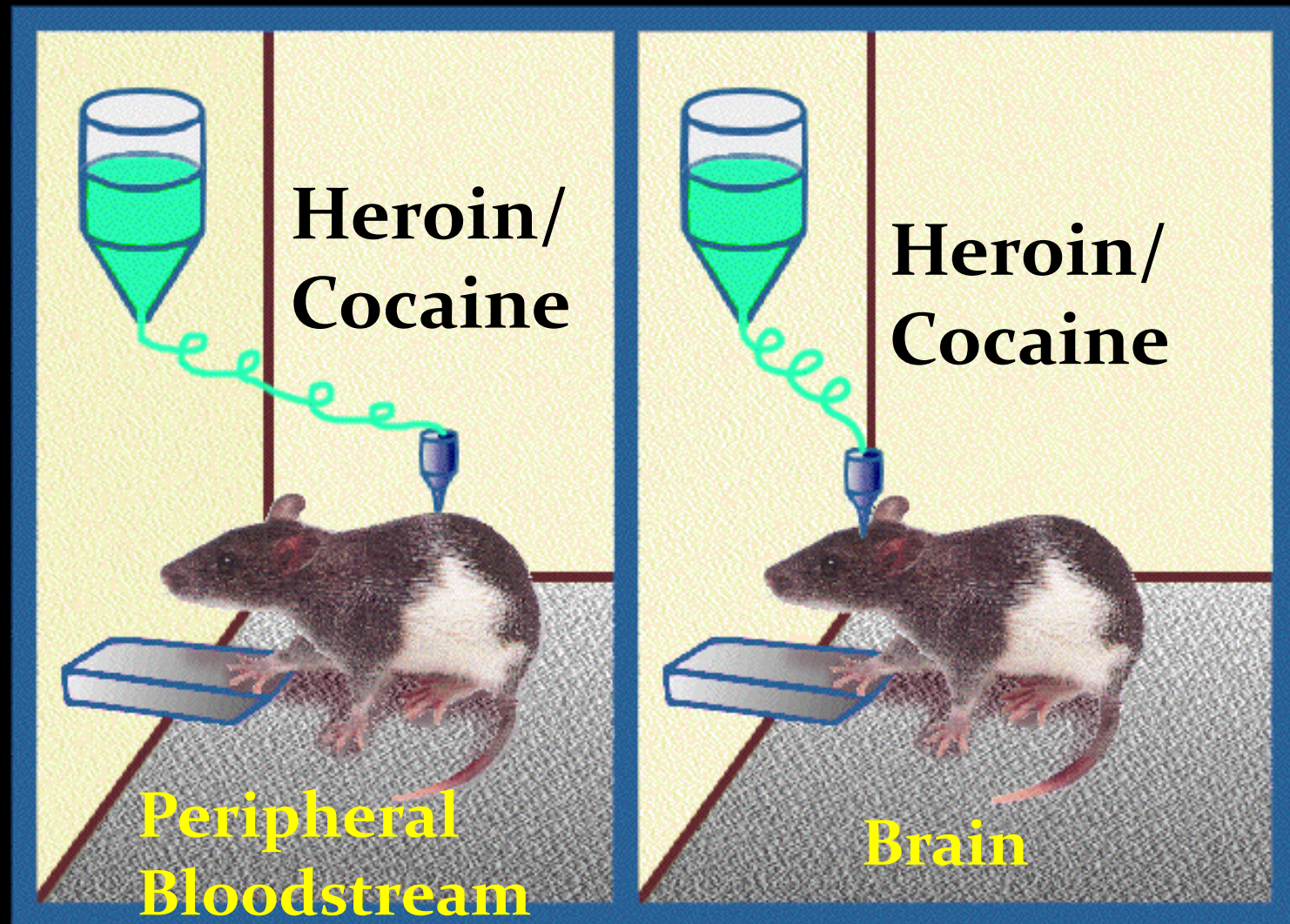
... and how we might get cured

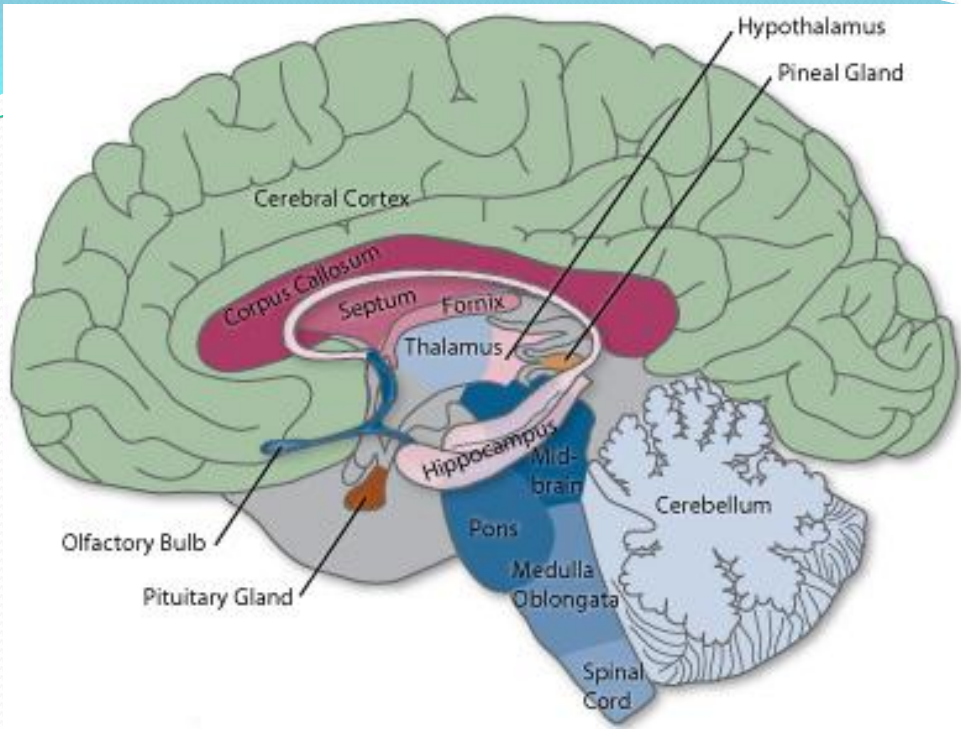
May 5, 1997



Rat keeps Pressing lever to get Heroin:

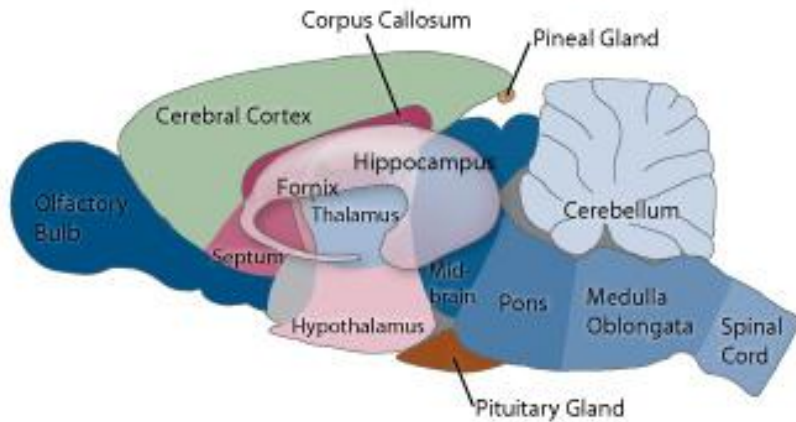
Activation of Reward Pathway*





Sagittal * Plane View of Brain:

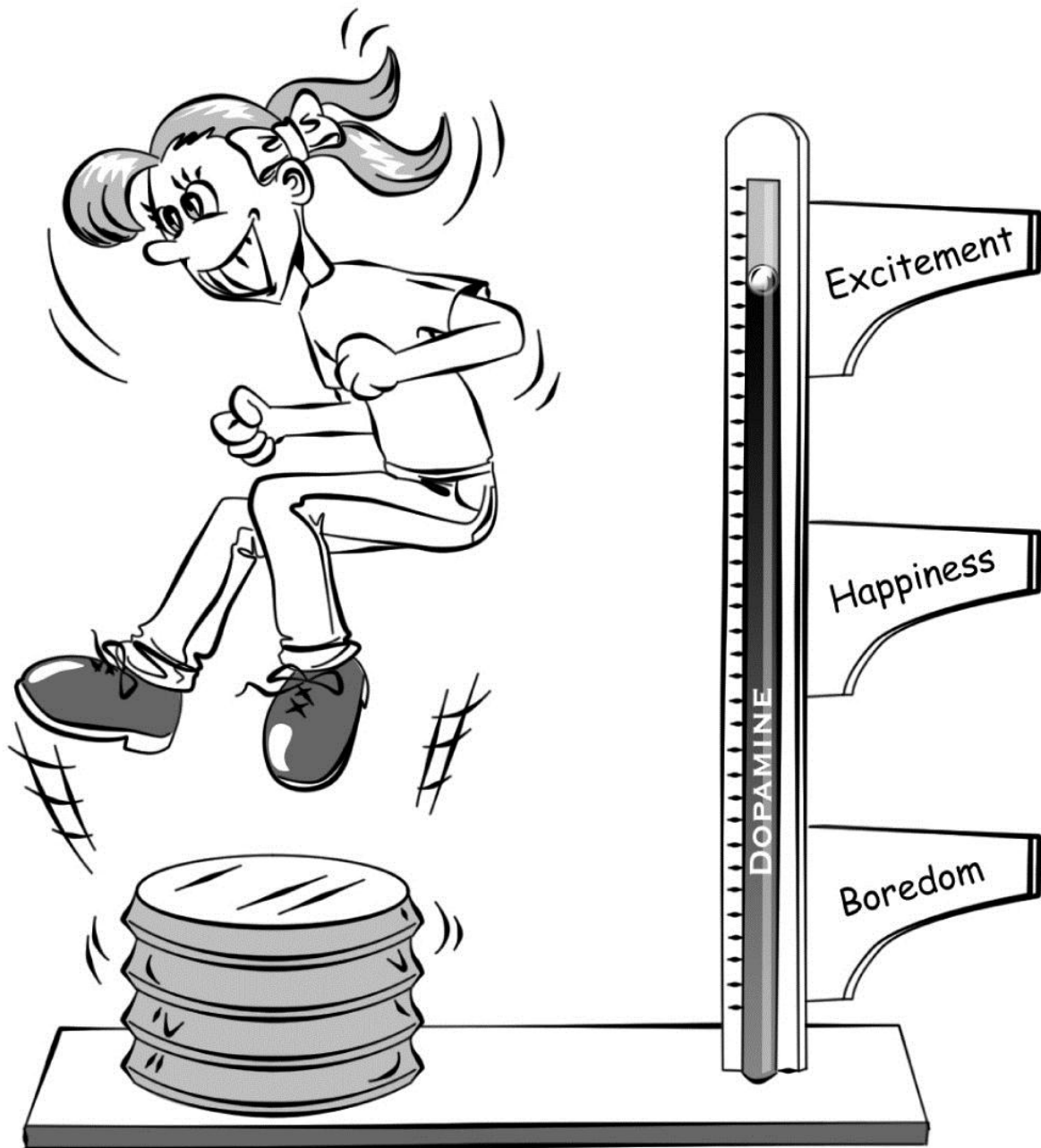
Human



Rat

Virtually Identical Reward Circuit





Dopamine Pump

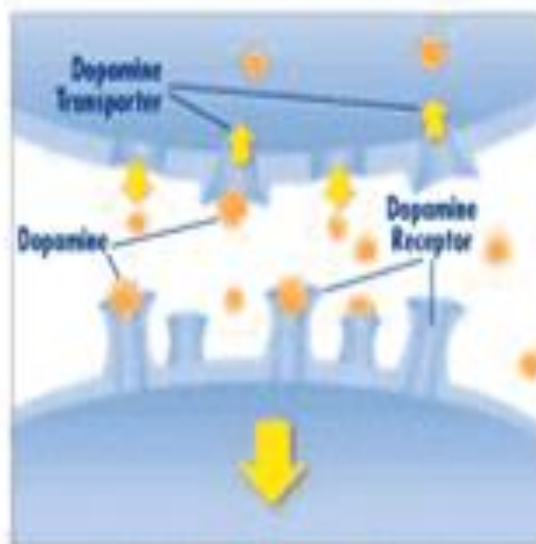
ALL DRUGS OF ABUSE TARGET THE BRAIN'S PLEASURE CENTER

Brain reward (dopamine) pathways



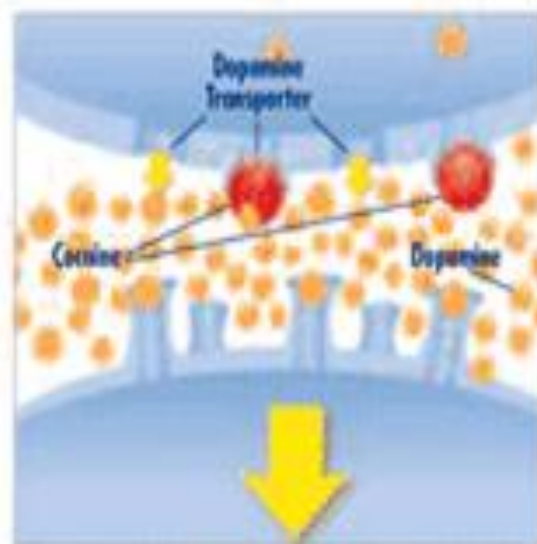
These brain circuits are important for natural rewards such as food, music, and art.

All drugs of abuse increase dopamine

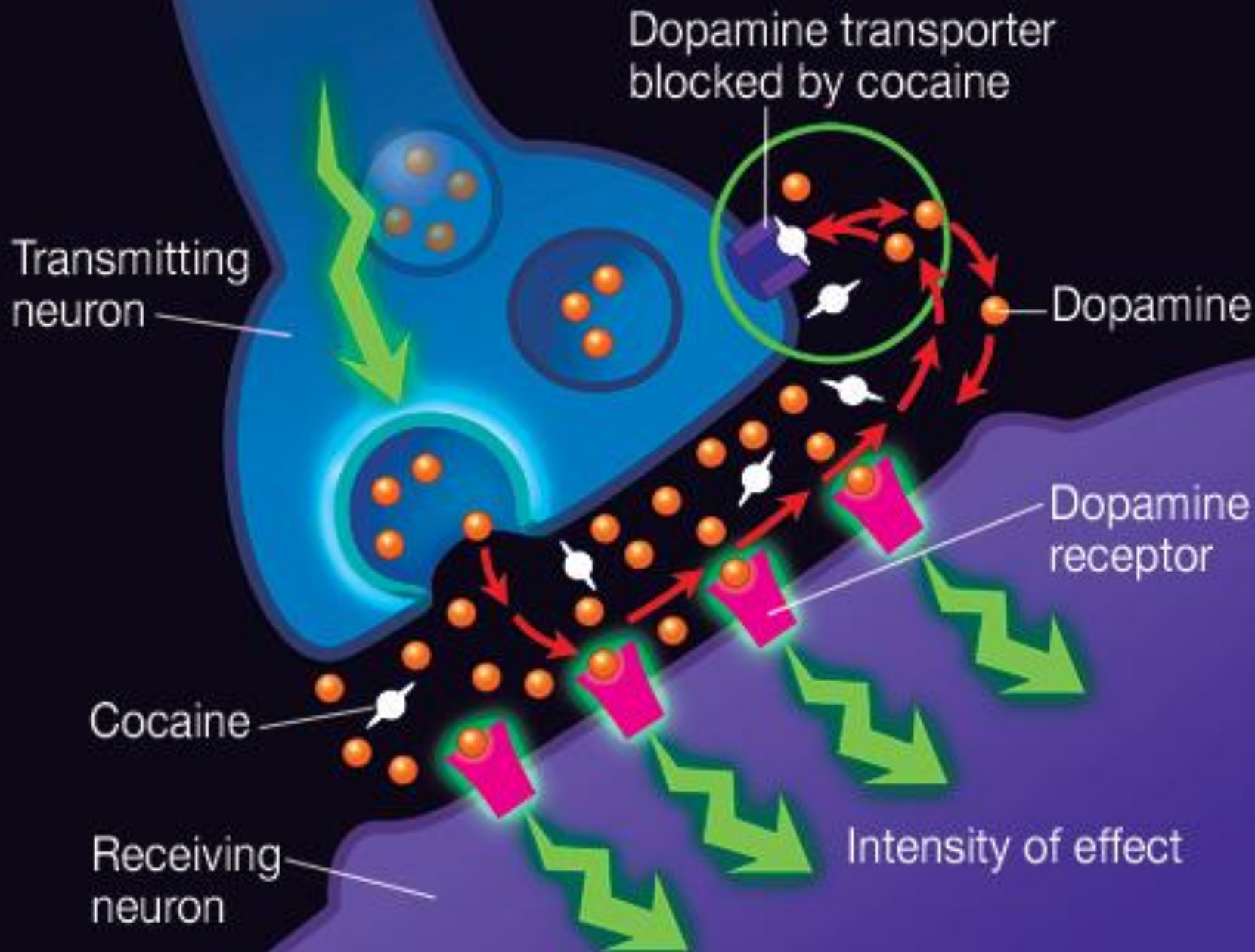


FOOD

Typically, dopamine increases in response to natural rewards such as food. When cocaine is taken, dopamine increases are exaggerated, and communication is altered.



COCAINE





DOPAMINE

180p □ mens-/moun

Fotostellung!

Doris Humphrey, Mr. John Bradford & Ben Sullivan

/ 13.00 - 18.00/200h/

Ausstellungseröffnung um 19 Uhr den 13. September

21:30 Einlass zur Afterparty.

zweiter Teil der Ausstellung im Café Data 77112/

Afterparty Programm:

AUXES (USA), Lexell Records, Myspace.com/auxes
indie, postcore, members MILSMARKER, CHALLENGER, Ben Denis Band, ...

BAJA (Bietiger) myspace.com/bajaband

*...oliver und von süßlicher schoebait * INTRO, freejazz

DJ Timi und zombets!

Basementizid

/September im Mobilat Club/

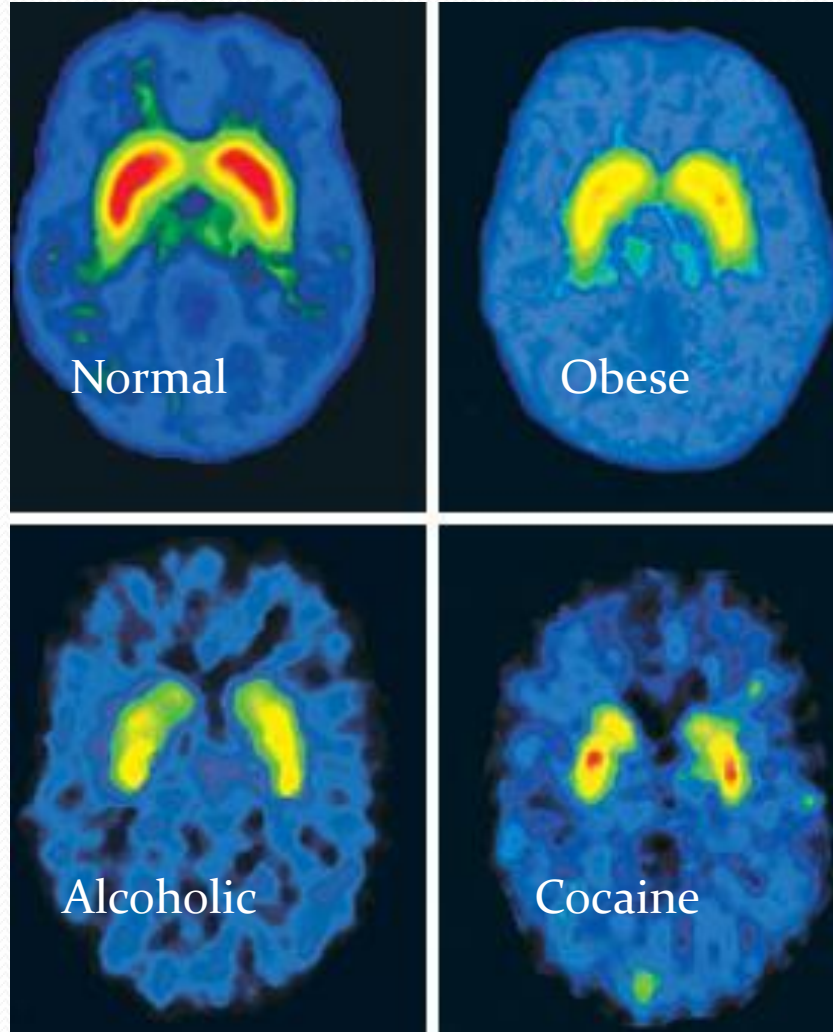


mobilat club/ salzstr.27/ heilbronn/ mobilat-club.com

Addicts: Hard Wired for Pleasure

Addicts: Fewer Dopamine Receptors

Red indicates high number of receptors for dopamine



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People short of dopamine have difficulty feeling joy: cause or effect?

*Hans Breiter, MD Associate Professor of Psychiatry
at Harvard Medical School*

Tolerance

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Either:

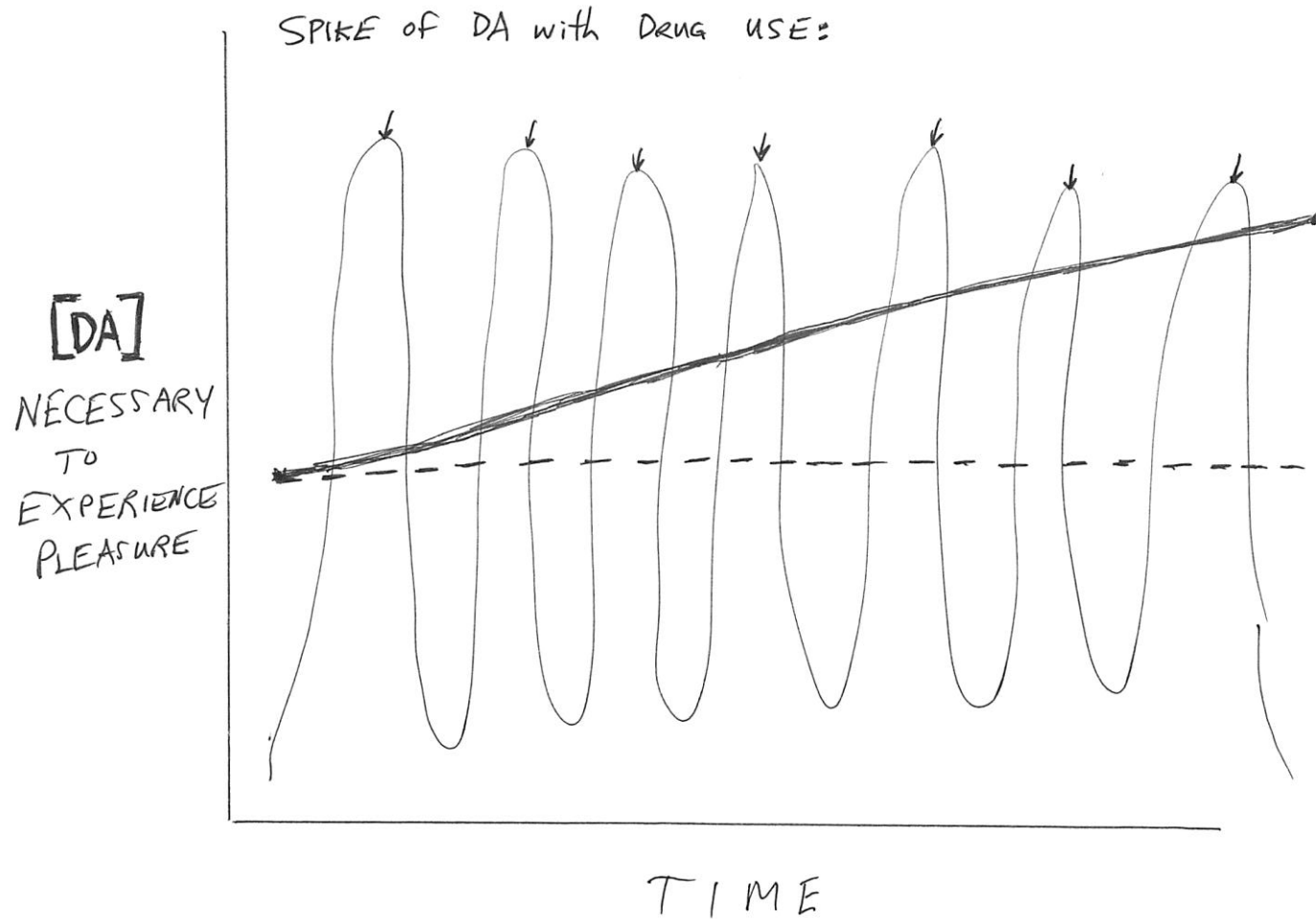
marked increase in amount needed to
achieve intoxication

or

marked decrease in effect with use of
same amount

DSM-IV-TR definition

Hedonic Set Point and Addiction *



Drug Cravings and Survival Cravings *

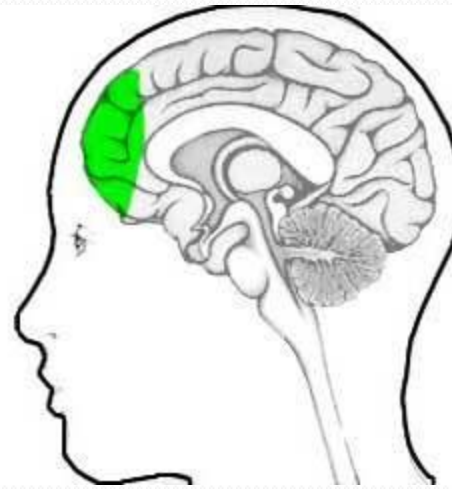
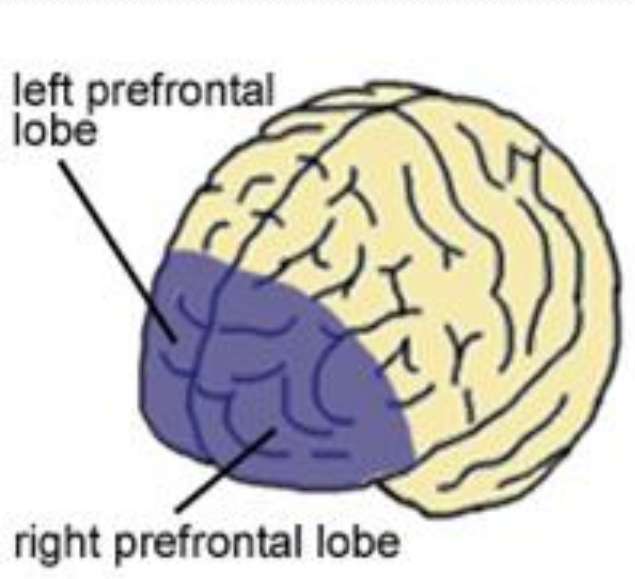
IDENTICAL PHENOMENON!!!

Consists of:

Preoccupation(obsession) + Dysphoria

Hypo-Frontalism: Impaired Executive Function

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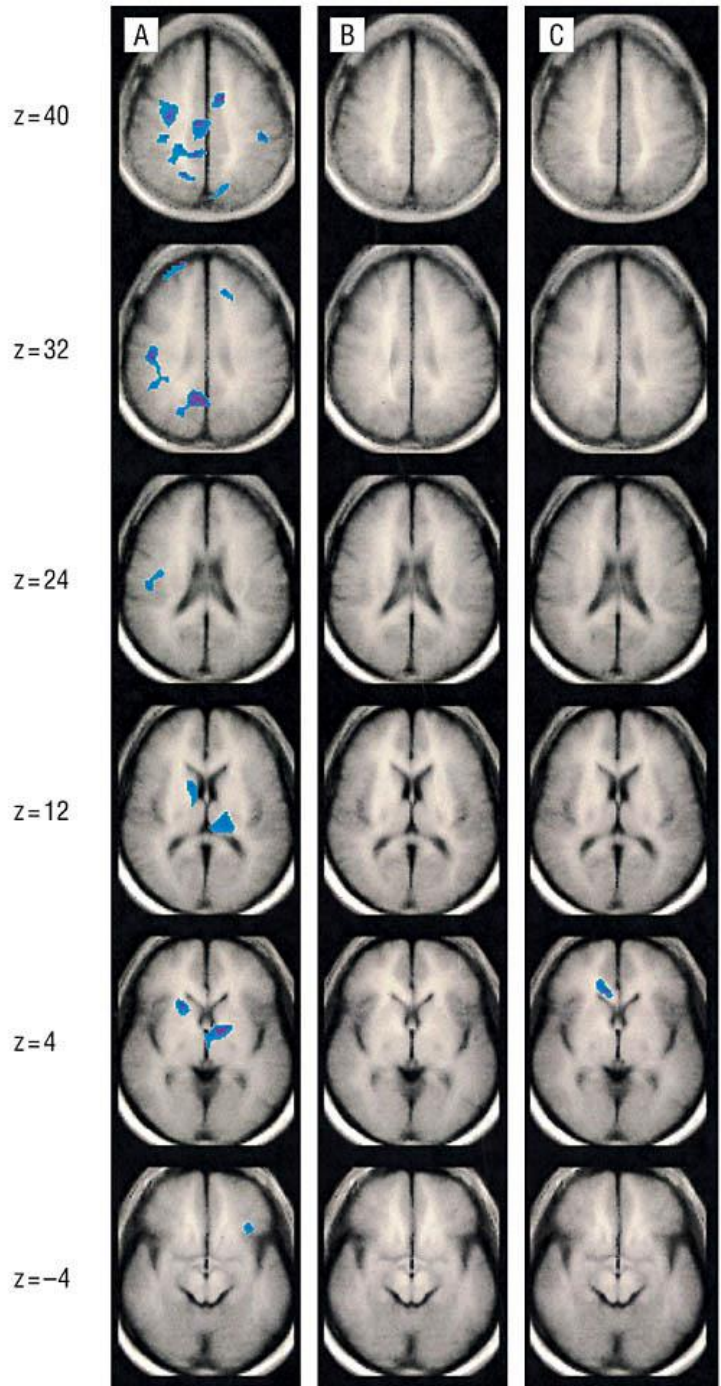
Executive Function:
Directed by Prefrontal Cortex

I-RISA

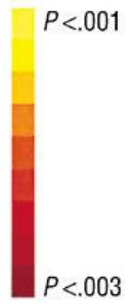


Impaired-
Response Inhibition
and
Salience Attribution

Goldstein and Volkow, 2002



Increased Activity



Decreased Activity



fMRI brain activity during initial viewing of video:
prior to onset of reported emotional/motivational response!

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RED=Increased activity

BLUE=Decreased Activity

Addiction 1-2 Punch...

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Gun to the Head!

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“Most alcoholics have to be pretty badly mangled before they really commence to solve their problems.”

Alcoholics Anonymous, p. 43

And yet....

most addicted patients want me to know...

“Doc, I’m here by my own free will!”

Treatment



- Outpatient or Residential
- Individual and group therapy
- 12-step based self-help programs(SAA, SCA, SLAA, SA, GA)
- Family Support(Gam-Anon and S-Anon)
- Treat related comorbidities(depression/anxiety, SUD, etc.)

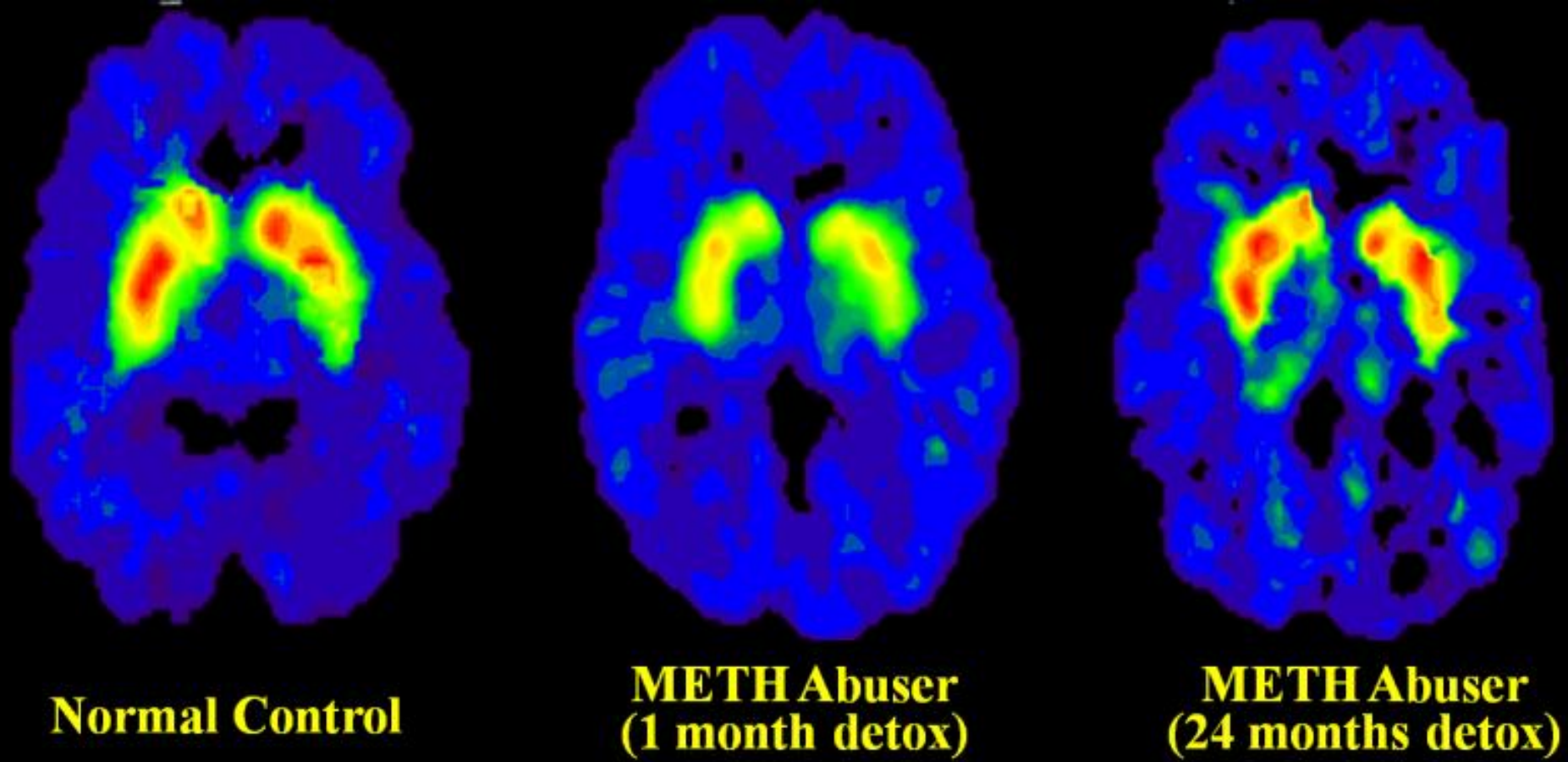
Drug Therapy

- **SSRI – initial therapy**
 - Multiple case reports; cohort studies
 - Significant decrease in sexual drive, masturbation, pornography use
- **Naltrexone – second-line therapy**
 - Opioid receptor antagonist
 - Dose ranges of 50-150mg daily
- **Topiramate**
 - Case reports; Dosages up to 50mg daily
- **Anti-androgens - paraphilias**

Great News: Recovery Works! *

Project Blueprint Study

...to determine the efficacy of
Physician Health Programs



Source: Volkow, ND et al., Journal of Neuroscience 21, 9414-9418, 2001.

The brain heals, with abstinence.
Recovery works!!!

Resources

- www.gamblersanonymous.org
- www.gam-anon.org
- www.sexhelp.org
- www.netaddiction.com
- www.olganon.org
- www.south-oaks.org/files/south_oaks_gambling_screen.pdf
- www.internetbehavior.com

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THANK YOU!