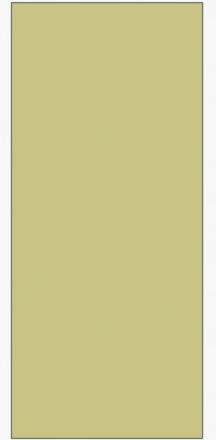


METHAMPHETAMINE WITHDRAWAL

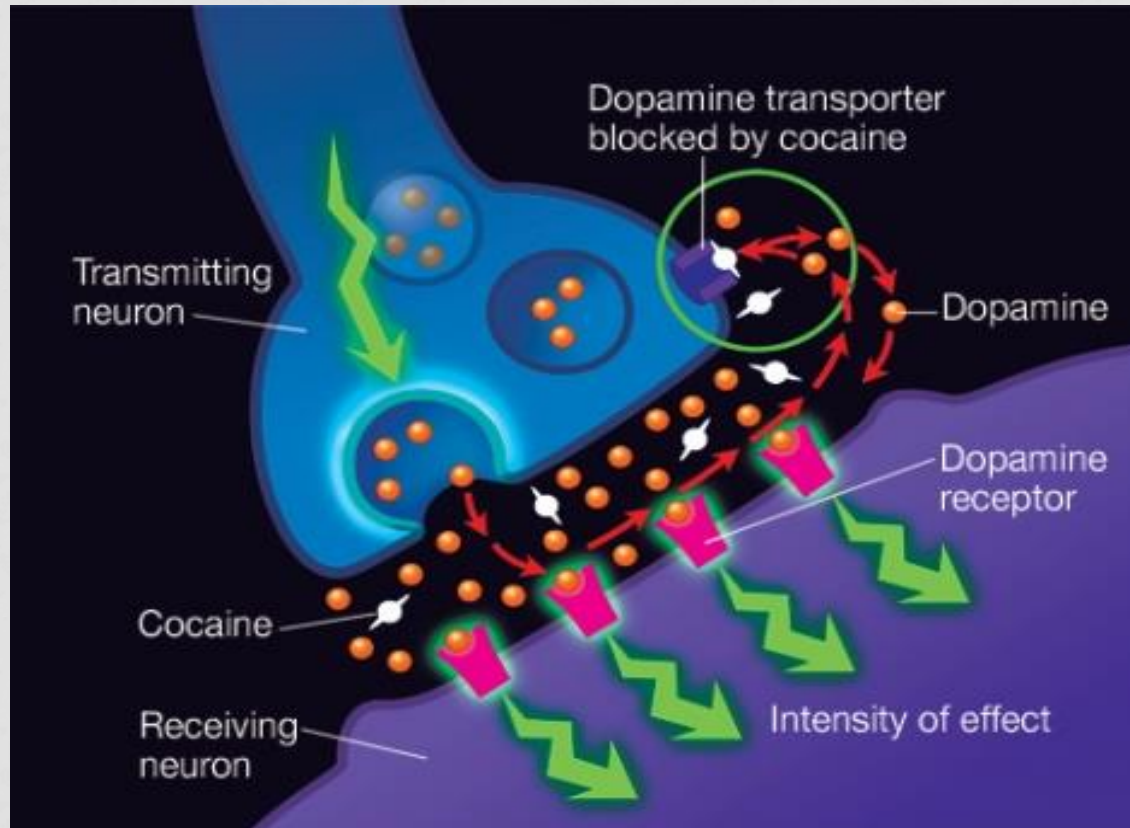
BRANISLAV SISLJAGIC & RACHEL DOYLE



OUTLINE SLIDE

1. Methamphetamine & the Brain
2. Methamphetamine & Withdrawal
3. Withdrawal Setting
4. Common Features of Withdrawal
 1. Day 1-5
 2. Day 5-28
 3. 1-3 months
5. Providing Assistance

(VERY) BASIC NEUROBIOLOGY

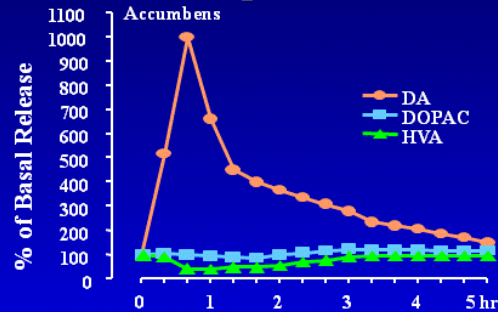


<http://www.drugabuse.gov/publications/research-reports/cocaine-abuse-addiction/how-does-cocaine-produce-its-effects>

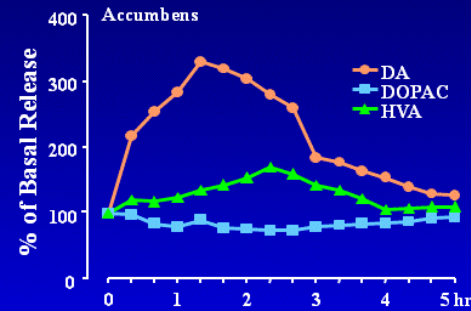
EFFECTS ON DOPAMINE LEVELS

Effects of Drugs on Dopamine Release

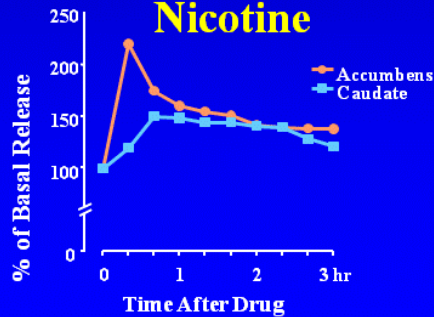
Amphetamine



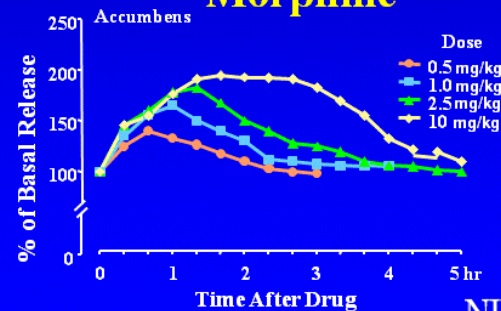
Cocaine



Nicotine



Morphine



Di Chiara and Imperato, PNAS, 1988

NIDA

<http://www.drugabuse.gov/publications/addiction-science/why-do-people-abuse-drugs/nearly-all-drugs-abuse-increase-dopamine-neurotransmission>

METHAMPHETAMINE WITHDRAWAL

- Some methamphetamine users will experience withdrawal symptoms
 - How much and how often the person has used
 - The presence of other physical and mental health problems
 - Expectations and fears about withdrawal
 - Settings in which withdrawal is undertaken

WITHDRAWAL SETTING

- Withdrawal is most often undertaken at home
- Specialist hospital or residential setting
 - Heightened risk of severe or lengthy withdrawal
 - Unstable housing
 - Exposure to methamphetamine at home
 - Complicating medical or psychiatric disorders

WITHDRAWAL DAY 1 - 5

THE CRASH

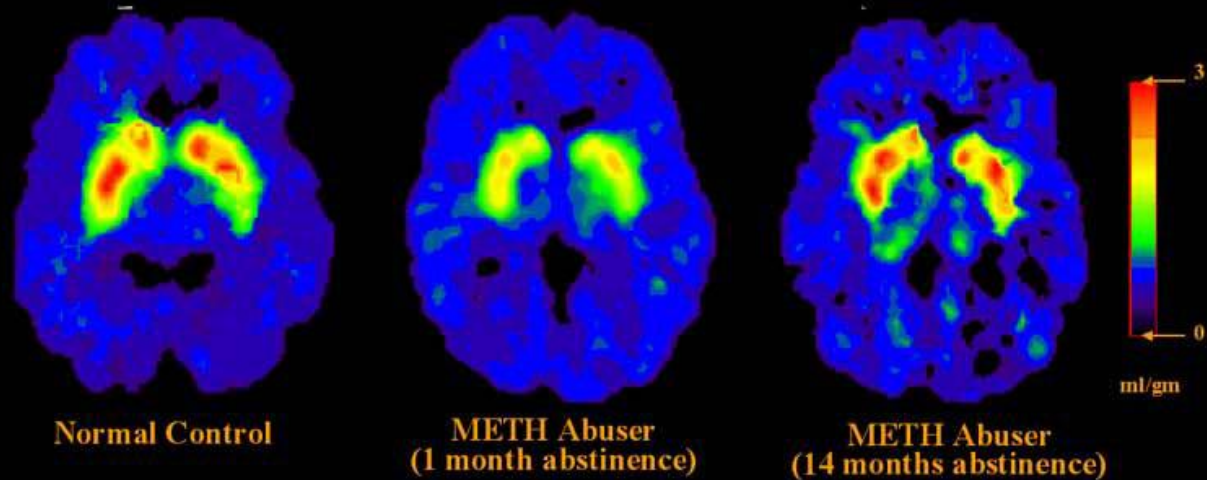
- Exhaustion
- Increase in sleep/periods of prolonged sleep
- Restlessness
- Increase in appetite
- Irritability or Anger
- Agitation or Anxiety
- Depression – check for suicidal ideation

WITHDRAWAL DAY 2 - 28

- Aches and pains
- Strong cravings
- Disturbed sleep & using dreams
- Poor concentration and memory
- Paranoid, strange thoughts
- Misunderstanding things around you
- Mood swings or Anhedonia
- Depression

DOPAMINE SYSTEM RECOVERY

Figure 2. Partial Recovery of Brain Dopamine Transporters in Methamphetamine (METH) Abuser After Protracted Abstinence



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

<http://www.drugabuse.gov/about-nida/legislative-activities/testimony-to-congress/2006/06/availability-effectiveness-programs-to-treat-methamphetamine->

AFTER 1-3 MONTHS....

- Normal sleep patterns return
- Major improvements in health and mood but the depression can linger
- Boredom-trigger that can take people back into meth use
- Reality check-clients realize what they have done to their lives, reputation and self image

PROVIDING ASSISTANCE

- Tell the client what to expect
- Determine what was and wasn't helpful in past withdrawal attempts
- Identify dependence on other drugs
- Recommend adequate diet, rest and fluid intake
- Encourage the client to monitor for symptoms of depression, self-harm and suicidal ideation

PROVIDING ASSISTANCE

- Develop intervention and relapse prevention plan
- Identify social supports & educate about withdrawal
- Refer to medical a practitioner
- Provide written material (recall and concentration)
- Recommend ongoing interventions (e.g., counselling, self-help groups)