

**Crystal Meth:  
The High is a Lie**

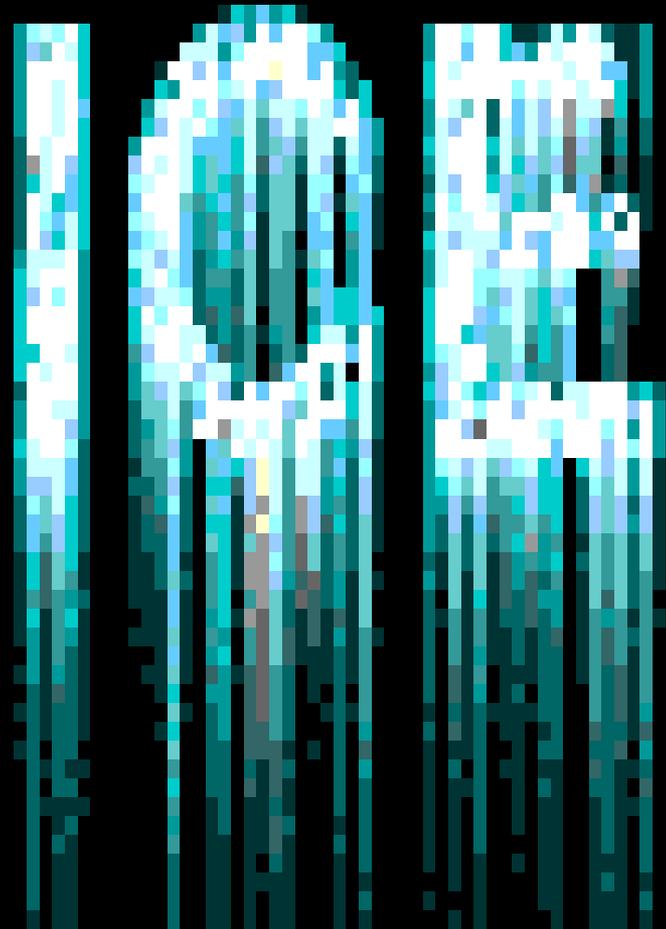
**Mary F Holley MD**





# Methamphetamine

- Crystal
- Glass
- Crank
- Go-fast
- Speed
- Chalk
- Ice
- Tina



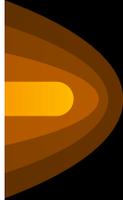


# Power Pills

- Stay up all night
- Study for finals
- Work a double shift
- Drive another hundred miles
- Don't consider it a 'drug'







# Stages of Addiction

- Early stages:  
Increasing sensitivity  
to drug
- Each high seems better  
than before
- Think you have  
control
- Crash is a mild  
depression





3/22/2011

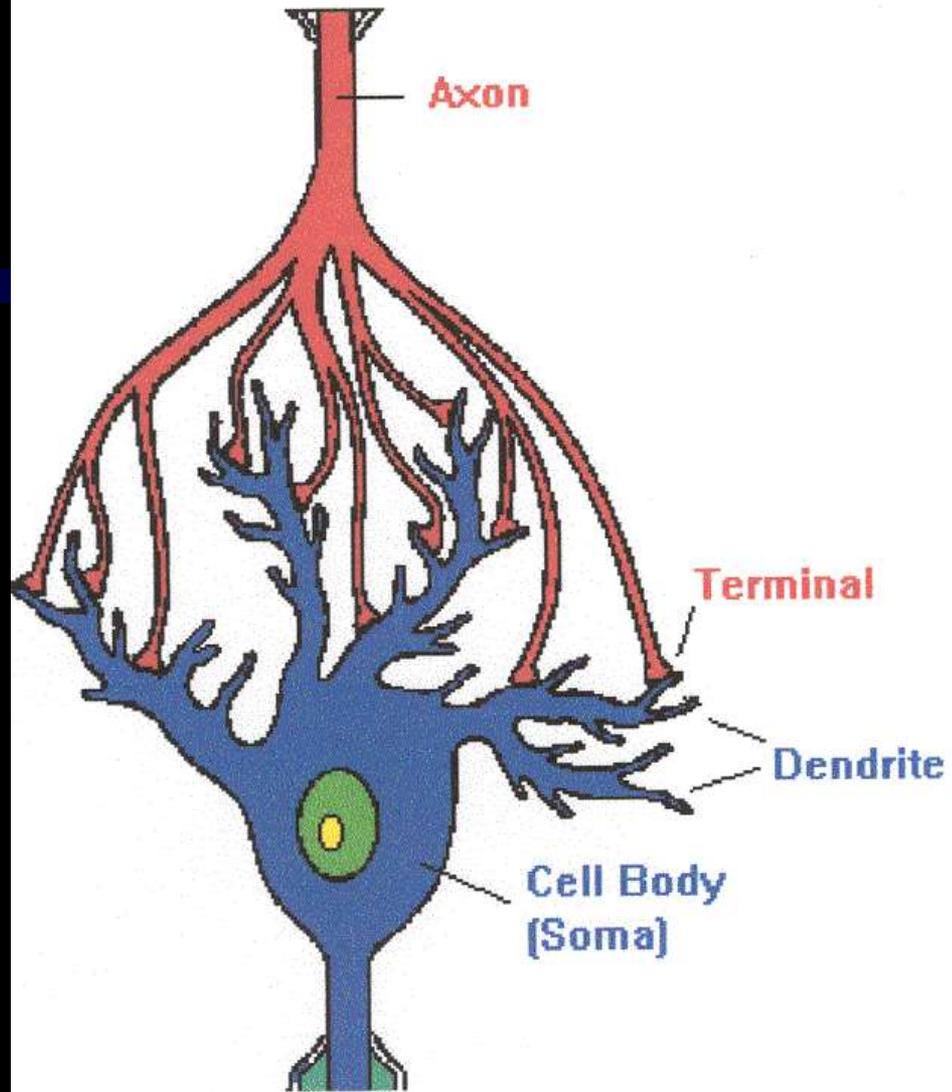
# How Does Meth Work



Brain cells

Synapse

Neurotransmitters



# Neurotransmitters

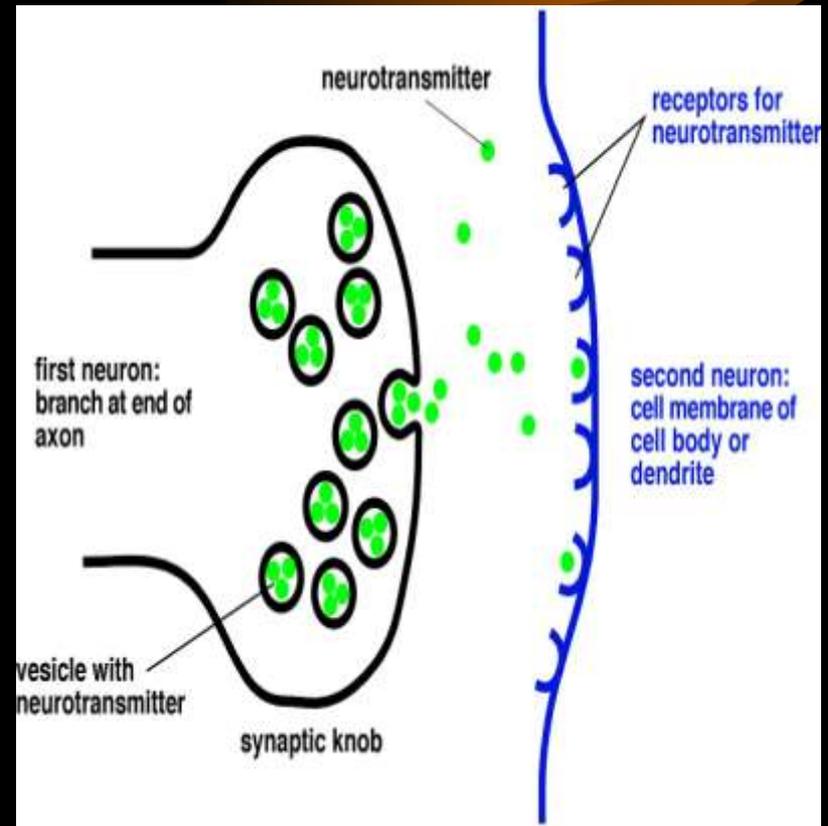
Dopamine midbrain  
intoxicating

- Stimulates pleasure center, feels good

Serotonin cortex  
distortions

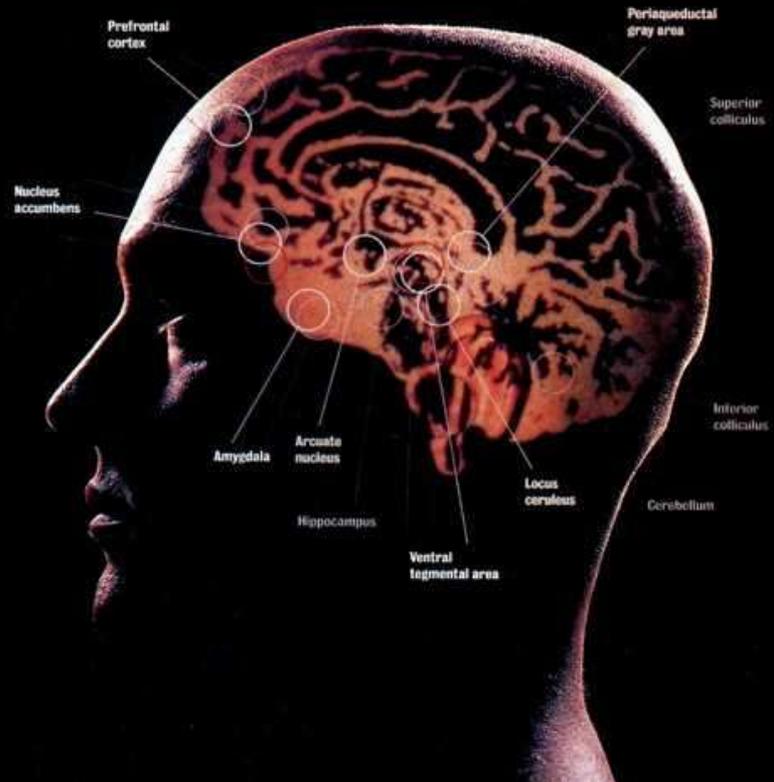
- Hallucinations visual, tactile, auditory, and emotional
- Adrenaline – fight or

3/20/2011  
flight



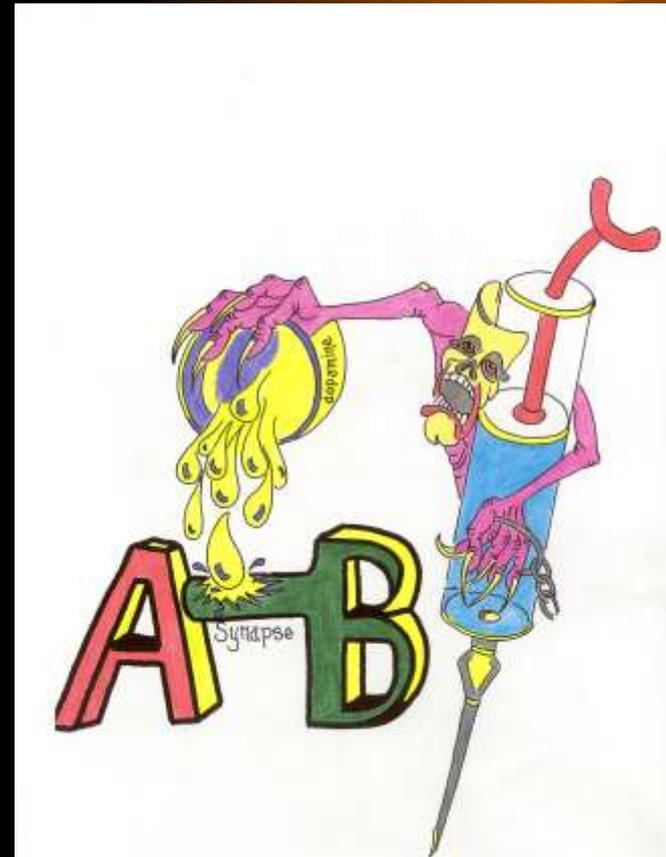
# Methamphetamine

- Personality, identity
- Pleasure Center
- Temper, self control
- Reality testing, hallucinations
- Nurture and protect
- Sex drive, appetite, sleep cycle



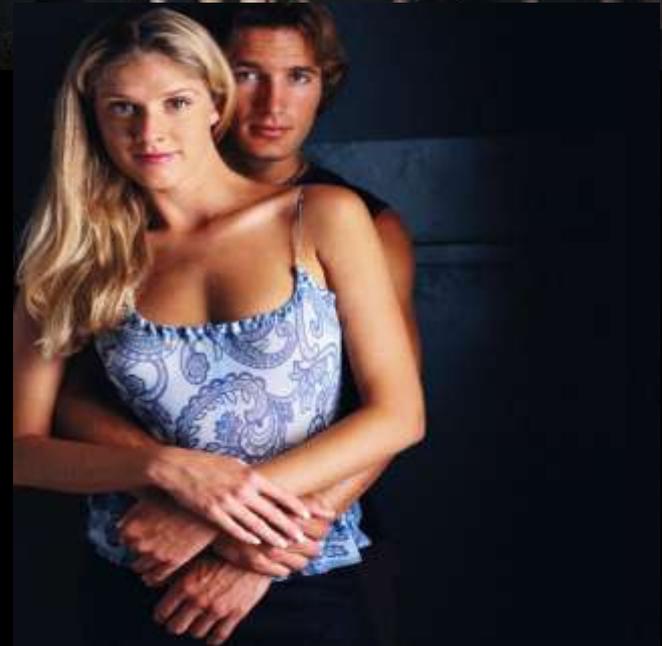
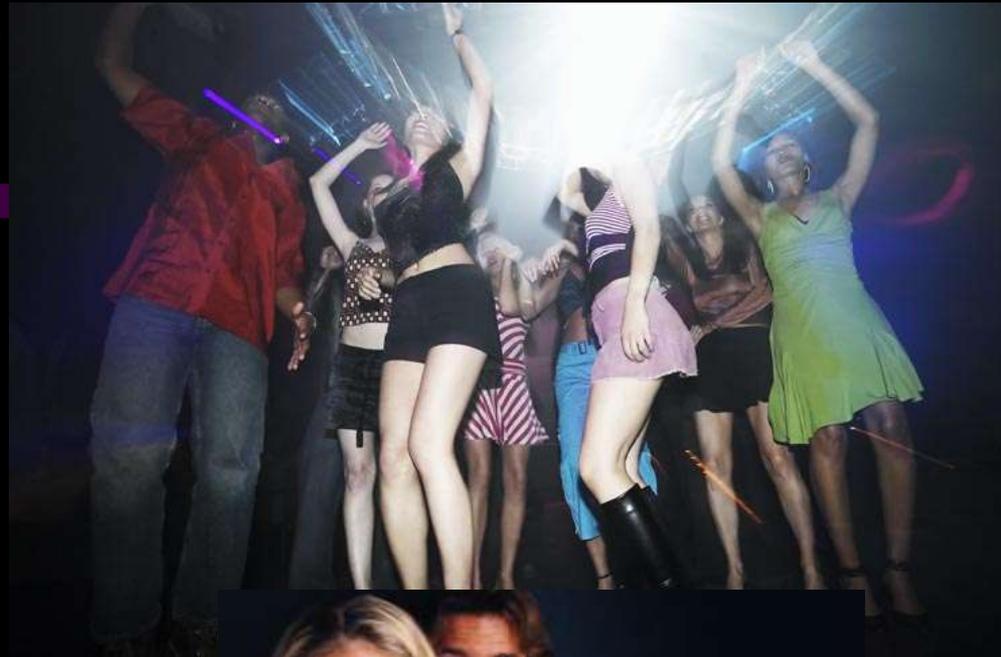
# Methamphetamine

- Huge surge in dopamine causes “high”
- Dopamine transporter is disabled
- Blocks enzyme that metabolizes dopamine
- Serotonin surge - emotional high



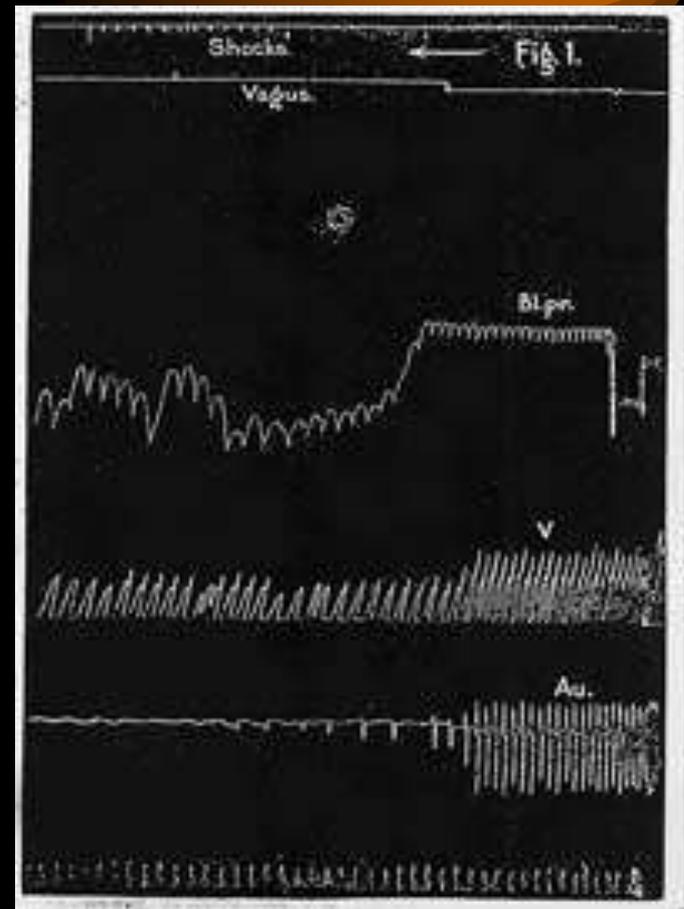
# The High

- Feel confident
- Powerful, Intelligent
- Energetic
- Accepted, loved
- Aroused, sexually virile
- Rush feels like a climax lasting 20 minutes to an hour



# Methamphetamine

- Heart attack, stroke
- Hyper-stimulation of brain - Seizures hallucinations
- Fever, muscle spasms
- Coma
- Death



# The Crash

What does the Crash feel like?

- Achy, depressed, tired
- Irritable, grouchy,
- Restless, confused, shaky
- Hungry, craving, empty
- Intense anxiety



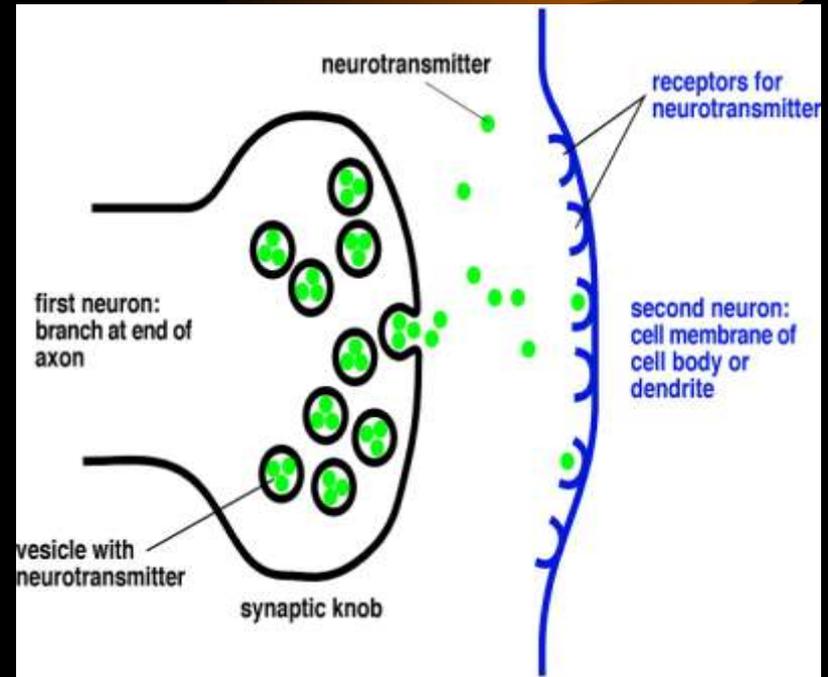
# Methamphetamine

- As receptors are destroyed, it takes more to get high
- Don't get high anymore, just stay out of the crash
- \$200 -\$300 per day just to feel normal

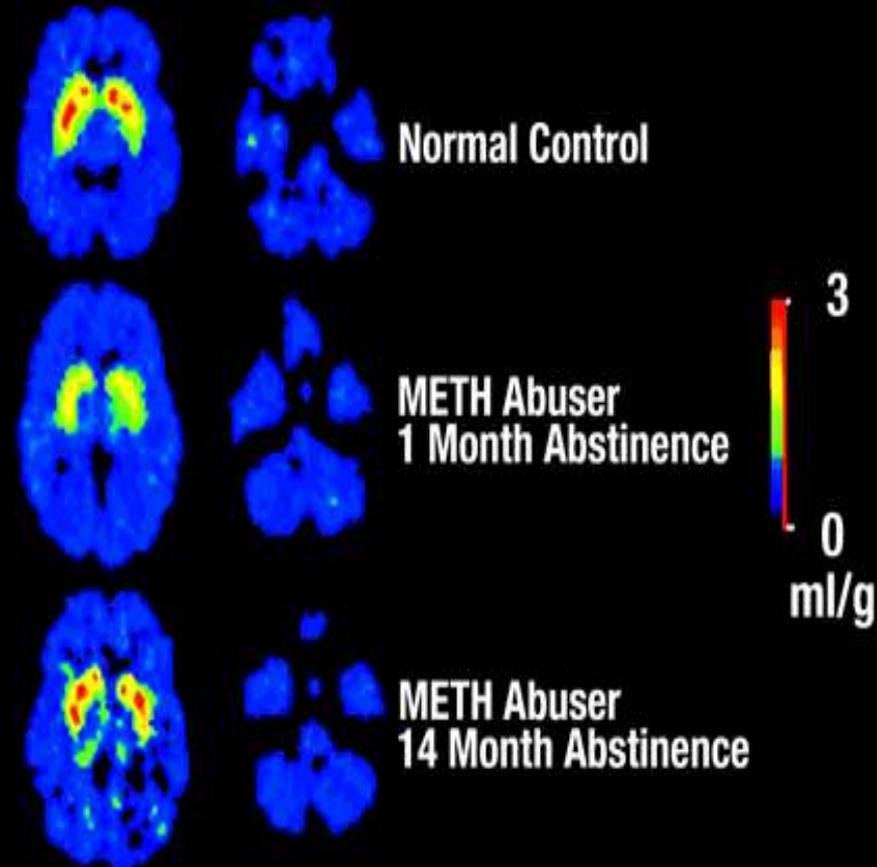
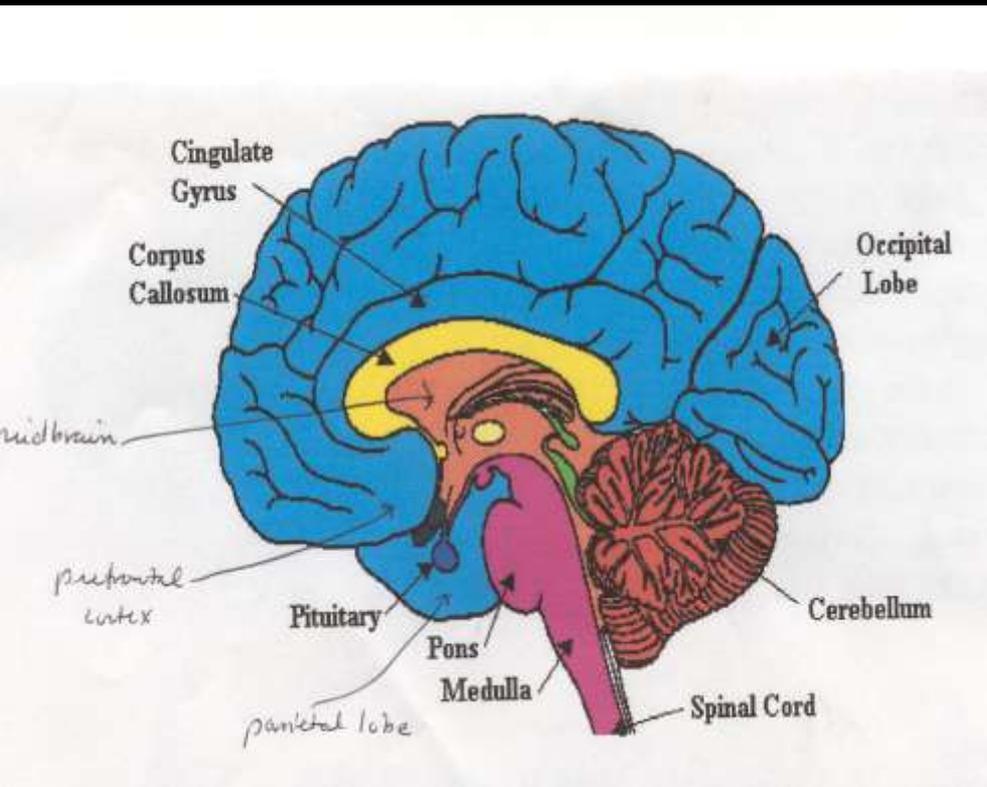


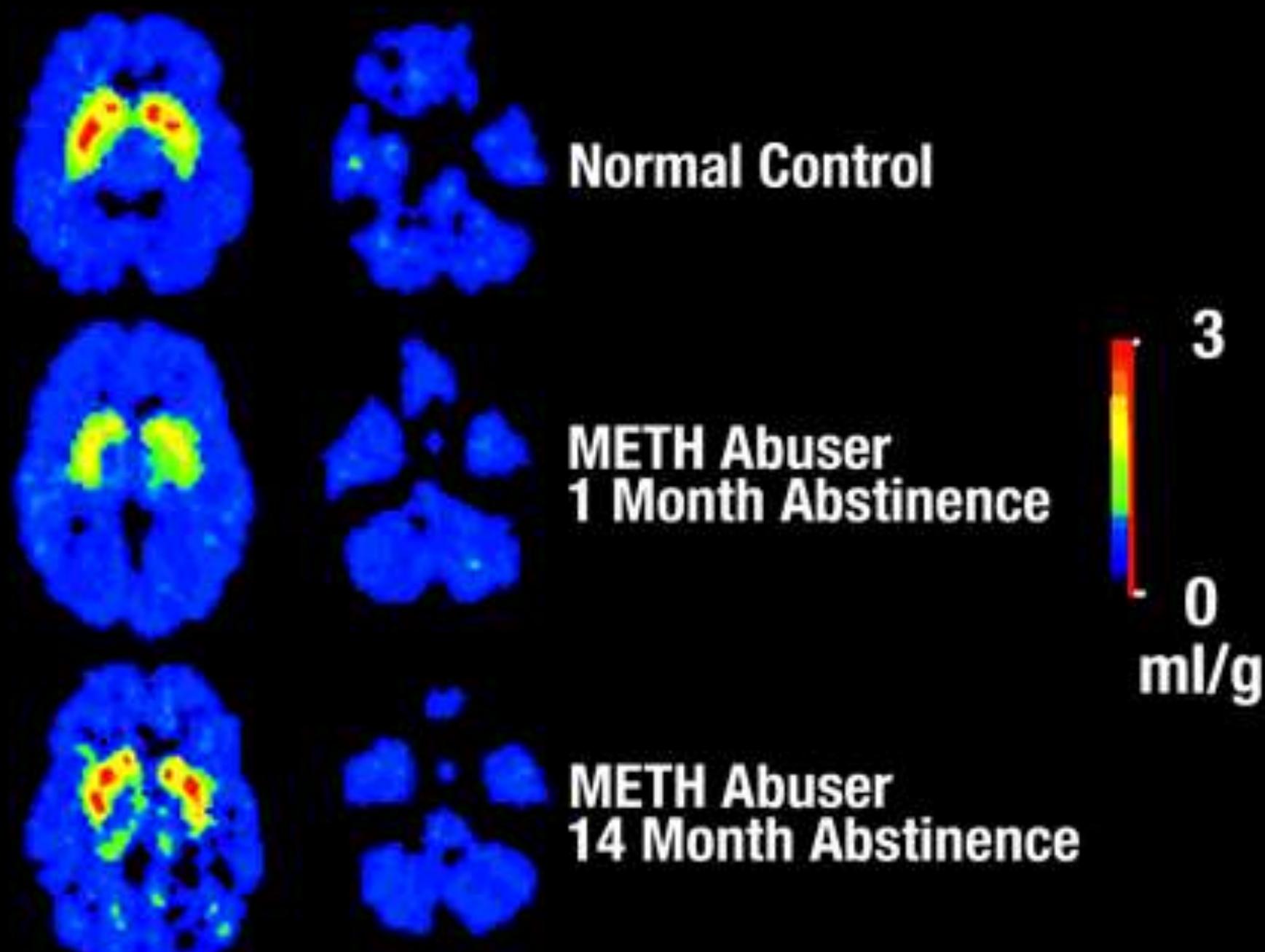
# Methamphetamine

- 12 to 18 months  
**ABSTINENCE**  
receptors heal
- Cell A repairs vocal cords
- Cell B grows new receptors
- Personality heals slowly



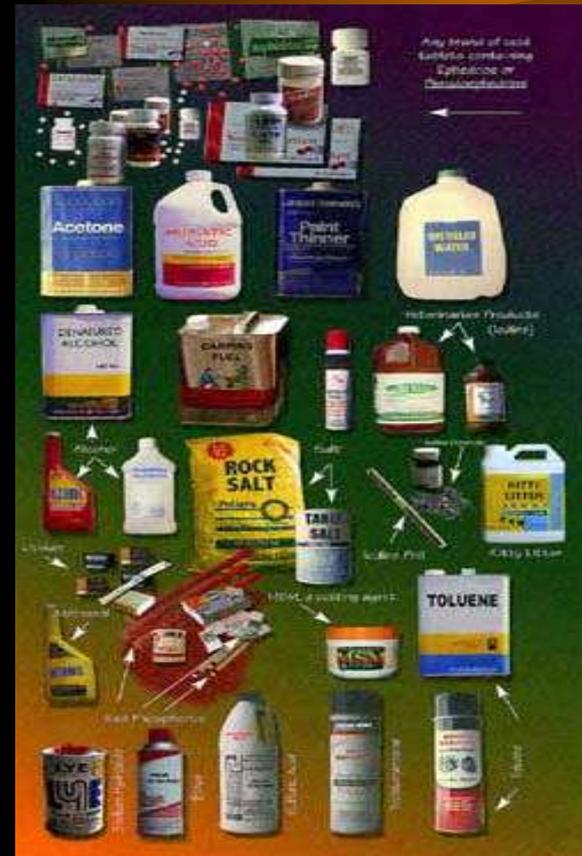
# Slice the Brain





# Battery Acid

- Anti-freeze, toluene
- Kerosene, Coleman fuel, acetone
- Red Devil Lye, muriatic acid [HCl]
- Anhydrous ammonia
- Red phosphorus

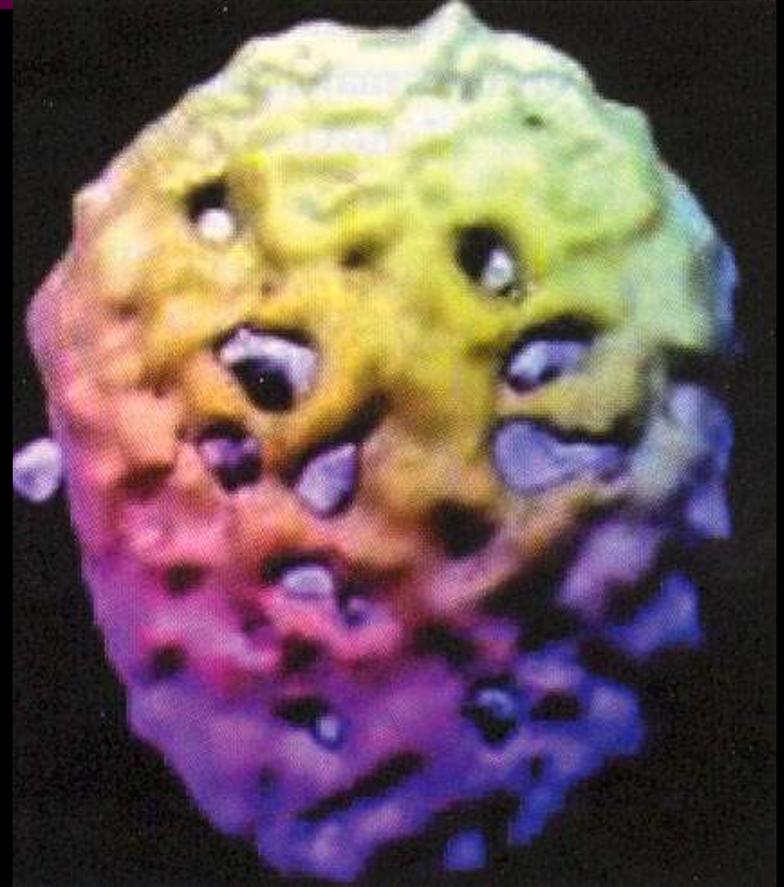
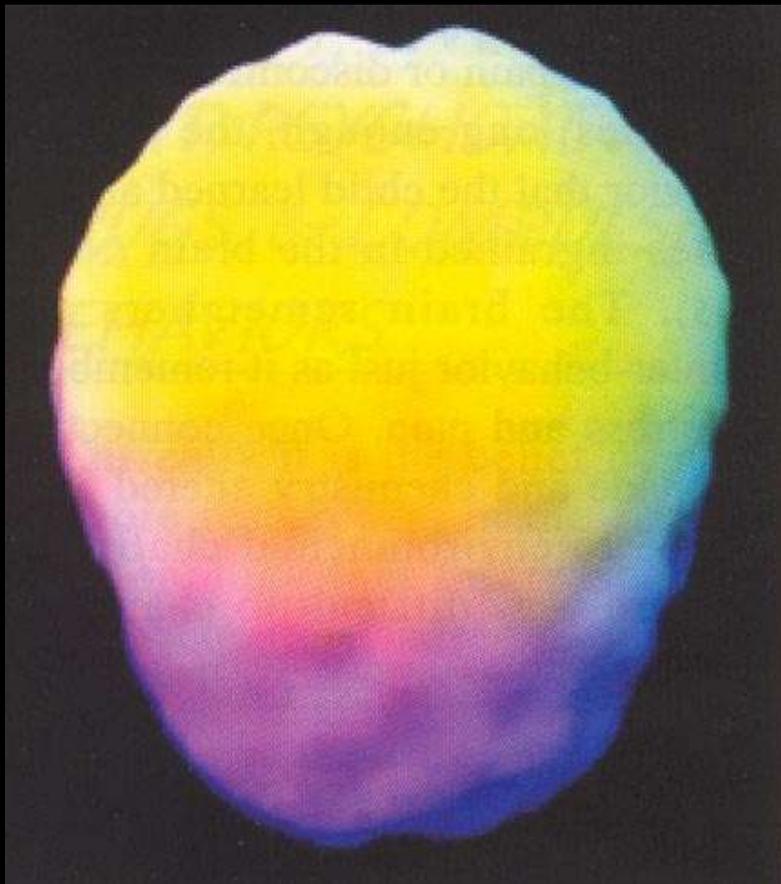


# Battery Acid

- Metabolites of meth
- Peroxynitrite  
dihydroxybenzoic acid,  
dopaquinone,  
hydroxydopamine,  
dihydroxyphenylacetic acid,  
methoxytyramine,  
hydroxyindoleacetic acid
- Hydroxy free radicals

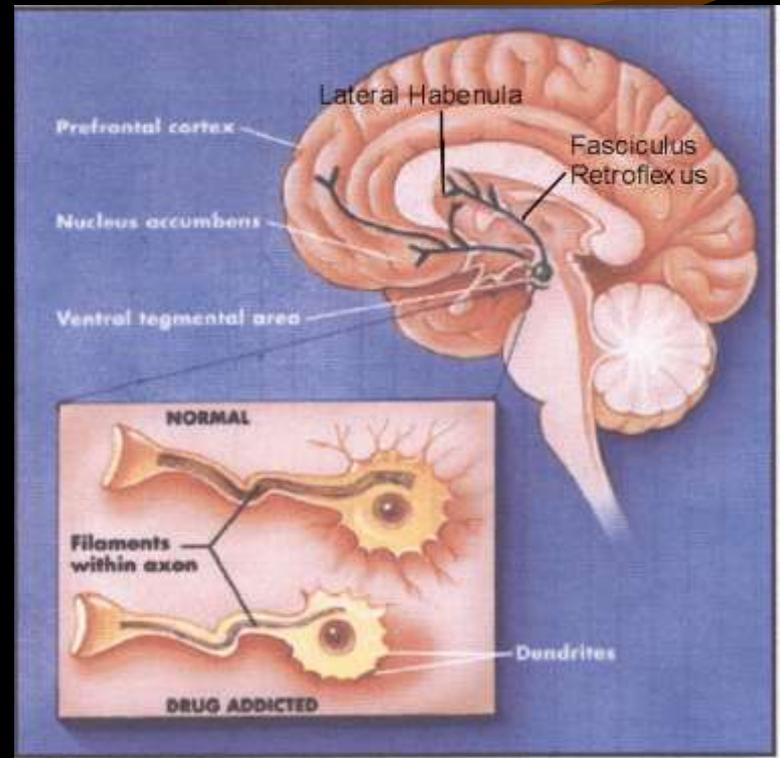


# Battery Acid



# Self Control Tract

- Only 200-300 cells
- Cells are coiled up, axons degenerate, synaptic terminals disintegrate
- Damage to this tract results in addiction and personality changes





# Smoked Injected ICE

Use it once,  
you will use it again –

75% within one week

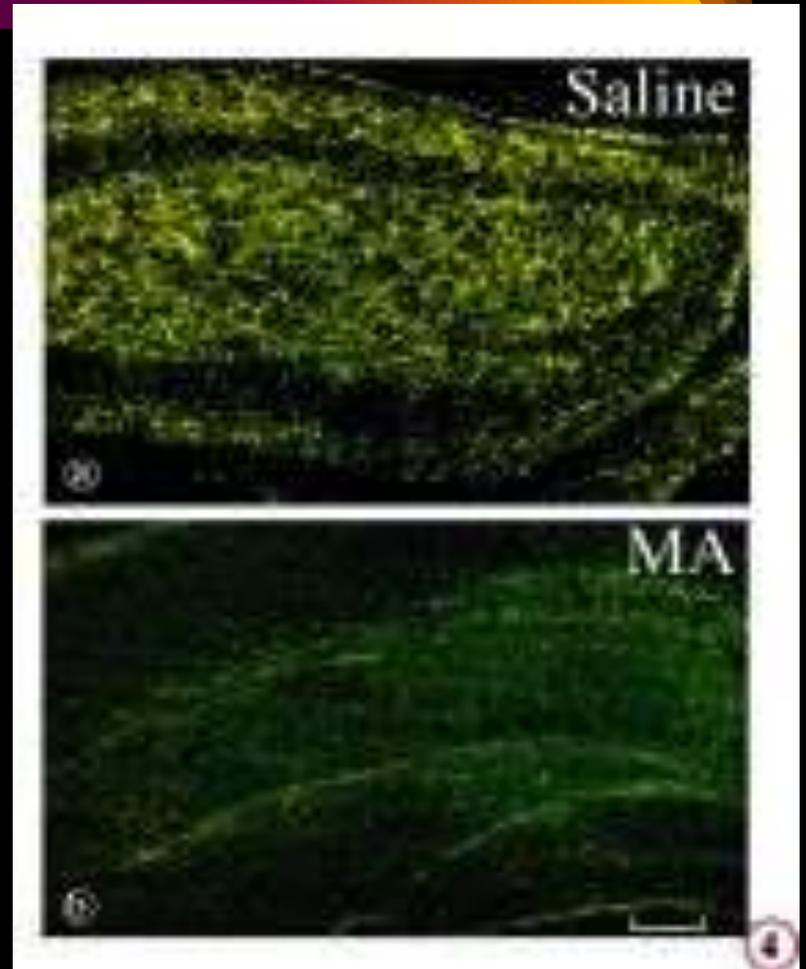
90% within one month

98% within one year

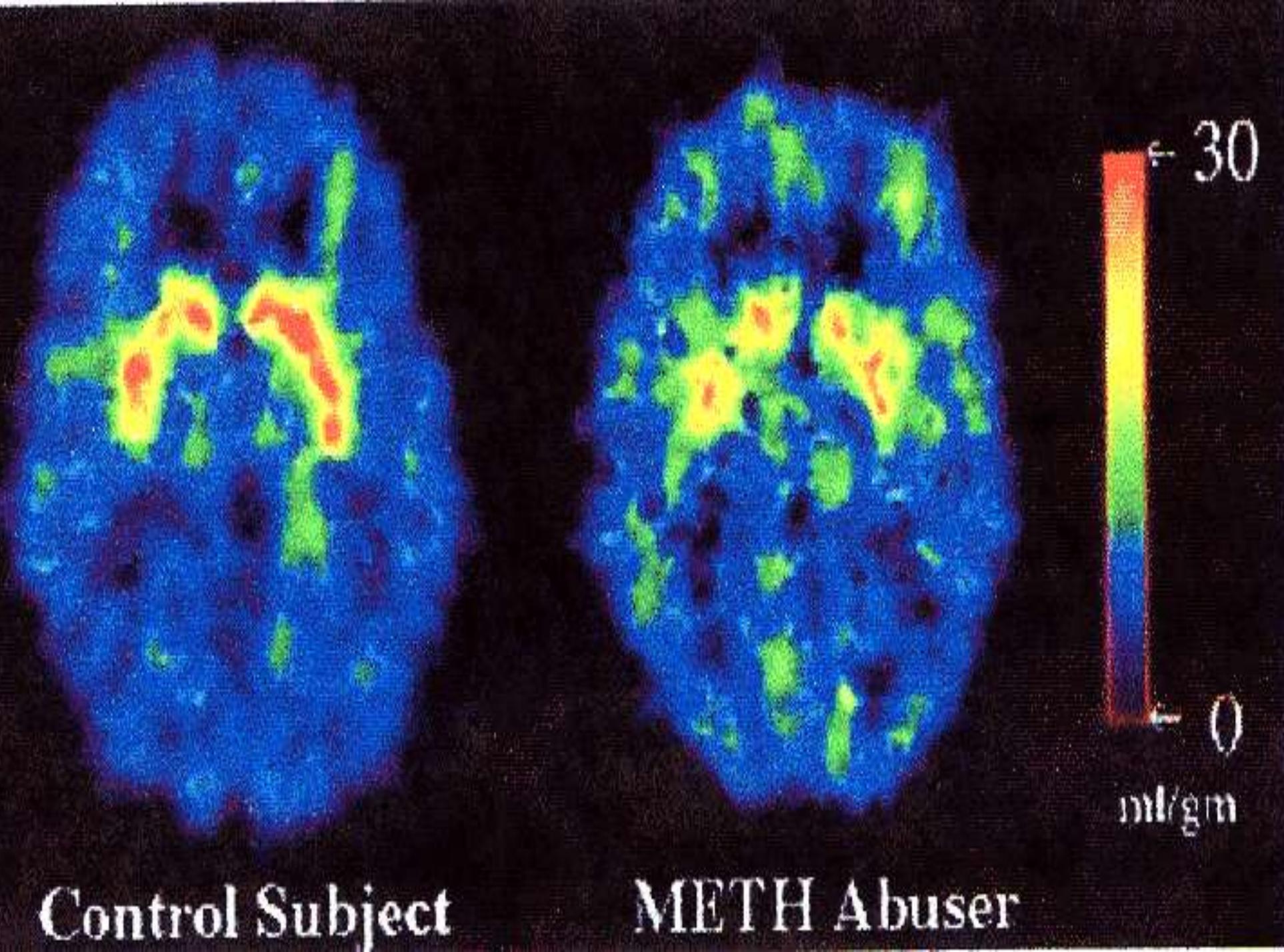


# Pleasure Center

- Nucleus Accumbens  
Pleasure center
- Surrounded by centers  
for appetite, thirst, and  
sex drive
- Stimulation of it feels  
good
- Damage to it causes  
loss of pleasure







# Mood Swings

- Anxiety becomes panic attacks
- Manic depressive anxiety disorder
- Fear becomes paranoia
- Irritable, impatient
- Anger becomes rage



# Psychosis

- Visual Sensory areas
- Hallucinations-  
visual and tactile
- Methamphetamine  
psychosis
- Suicidal, homicidal  
thoughts





*Crack on Your Skin* and you'll know what it's like to feel like you're being attacked from the inside. The sensation of your skin  
that feels just like it's being attacked from the inside. The feeling of your skin when you're getting hit with the drug that makes you feel like you're  
*Life or Meth*

# Motor Activity

- Parietal Lobe
- Itchy and twitchy
- Hyperactive
- Fidgety
- Spasms
- Parkinson's disease

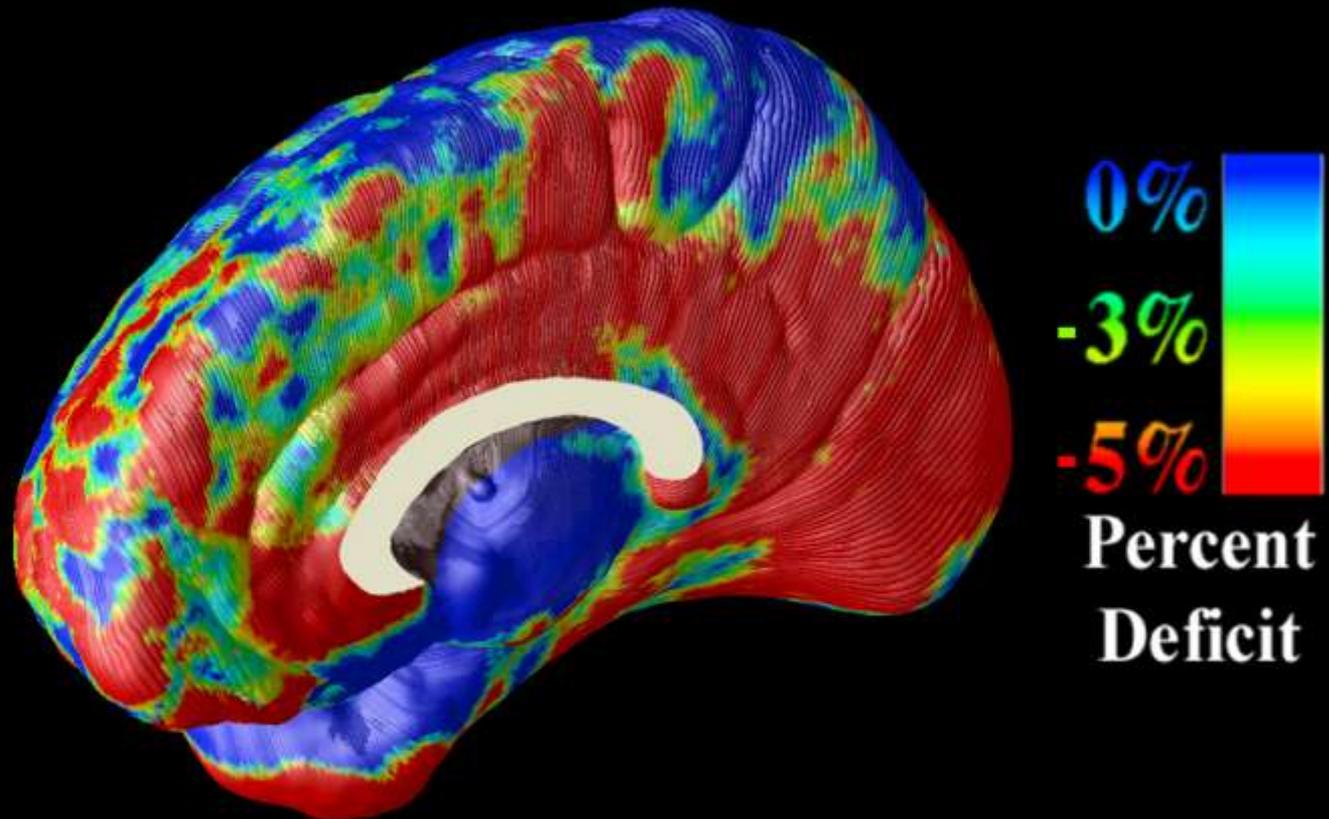


# Appetite and Alertness

- Insomnia
- Anorexia
- Malnutrition
- Hair loss
- Teeth fall out
- 4 years on crystal



# Mental sharpness



# Mental Sharpness

- Memory loss
  - short term
  - long term
- Poor judgment
- Learning disability
  - poor job performance
- Dementia
- Makes you stupid



# Child abuse and neglect

- Abandoned child in store parking lot
- Hungry tired baby
- Kids don't get to school, homework not done
- No clean clothes, no food in the house

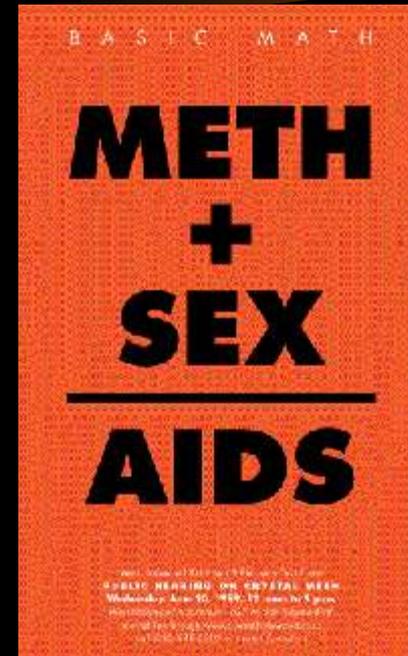


Children found  
in homes with  
meth labs



# Sexual Dysfunction

- Arousal and enhanced performance
- Porno is part of the high
- Average 4.6 sex partners per month
- Longer rougher deviant sex



# Depression

- Profound depression while using
- Persists for 12-18 months in recovery
- High rate of relapse
- TRAPPED



# 2-18 months ABSTINENCE

- Panic attacks, paranoia and delusions fade
- Anger and rage controlled, depression lifts
- Eat and sleep better
- Tremors and muscle spasms improve



# Triggers

- Smell of marijuana  
Drink of alcohol
- Sight of drug paraphernalia
- Sound of rap music
- People or locations associated with drugs
- Pornography
- 2-3 years





*That Spell is Your Loss.*

*Late or Never*

# Just Trying It

Next week – “just trying it” again

Next month – “just trying it” again

You’re not a user?

You’re not an addict?

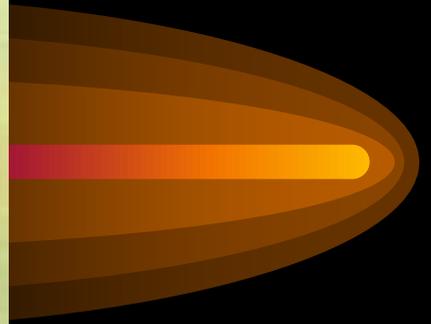
**PROVE IT**

Quit using and prove it

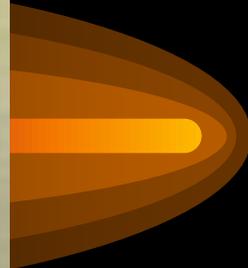
Not just for a week or two – really quit

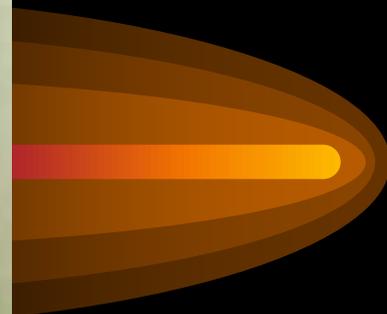
3/22/2011



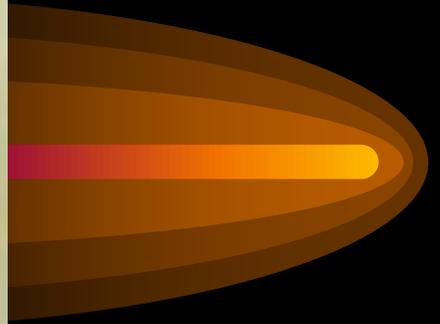


3/22/20

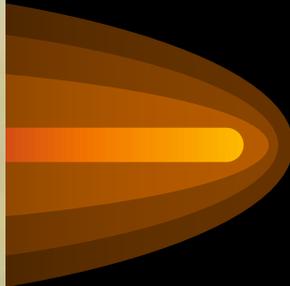




3/22/20



3/22/20



3/22/2011



3/22/201



3/22/2011

# Meth Mouth

- Decreased Saliva
- Poor hygiene
- Poor diet
- Tooth grinding
- Dissolves Enamel



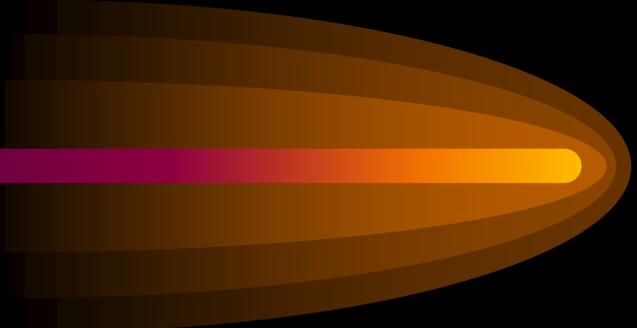
Eastman Dental Institute for Oral Health Care Sciences

# Homeless and hungry

- Addicts lose everything
- Job, kids, family, home, business, health
- Will not seek help until they hit bottom



# Hit Bottom



- HURTS BAD
- Not willing to tolerate the agony of withdrawal until
- HURTS WORSE
- When using hurts worse than getting clean, you will get clean

The High is a Lie

Mothers Against Methamphetamine

[www.mamasite.net](http://www.mamasite.net)

3/22/2011