

“Crystal Meth”

It has many names: ***Speed, Chalk, Tina, Crank, Croak, Crypto, Crystal Ice, Fire, Glass, Meth, Tweek, White Cross***. No matter what you call it, it's still methamphetamine.



Commonly Found Chemicals

- Pseudoephedrine Tablets (Mini-Thins, Sudafed, etc.)
- Starter Fluid (Ether)
- Denatured Alcohol
- Heet (Methanol)
- Drano, Red Devil Lye
- Anhydrous Ammonia
- Red Phosphorous, toluol, paint thinner
- Sulfuric Acid (Battery Acid)/
Muriatic Acid
- Freon, Hydrogen Chloride Gas, Acetone



How is Meth Made?

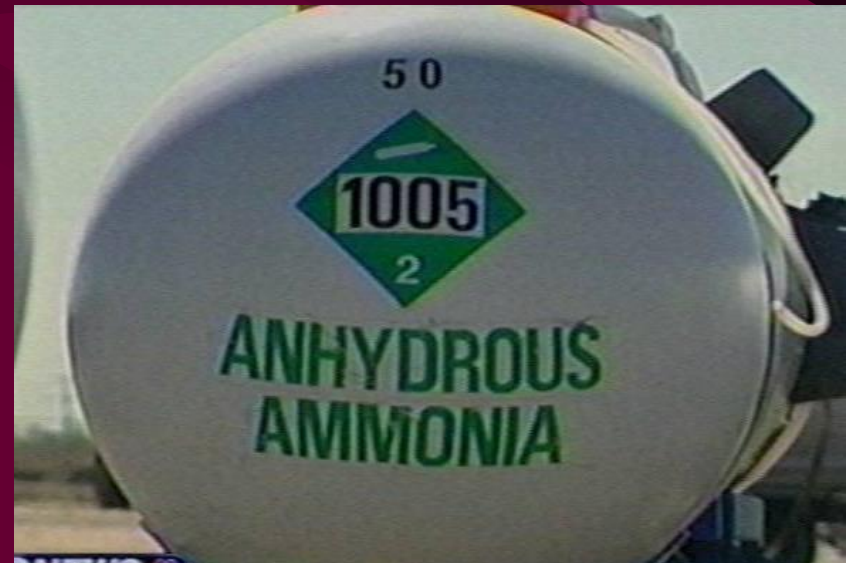
- Methamphetamine is a synthetic (man-made) chemical, unlike cocaine, for instance, which comes from a plant.
- Meth is commonly manufactured in illegal, hidden laboratories, mixing various forms of amphetamine (another stimulant drug) or derivatives with other chemicals to boost its potency. Common pills for cold remedies are often used as the basis for the production of the drug. The meth “cook” extracts ingredients from those pills and to increase its strength combines the substance with chemicals such as battery acid, drain cleaner, lantern fuel and antifreeze.

Detrimental Affects of these Chemicals

The concern is that these chemicals can and will:

- ☞ React to Air
- ☞ React to Water
- ☞ React to Shock Movement
- ☞ React to Each Other
- ☞ Attack Eyes, Lungs, Kidneys
- ☞ Burn Skin
- ☞ Kill you

House Explosions are not
Uncommon!



Where are these *Meth Labs*?

-  Houses
-  Mobile Homes
-  Businesses
-  Apartments
-  Hotels, Motels
-  Garages
-  Pole Barns, Sheds
-  Storage Facilities
-  Cars, Semi-trailers
-  Fields, Parking Lots
-  Remote Locations







For every one pound of meth,
six pounds of waste is created.



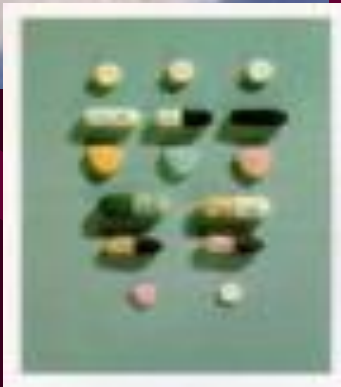
Environmental Harm:

For each pound of meth produced, five to six pounds of hazardous waste are generated, posing immediate and long-term environmental health risks. The chemicals used to make meth are toxic, and the lab operators routinely dump waste into streams, rivers, fields, backyards and sewage systems, which can in turn contaminate water resources for humans and animals.

Cleaning up these sites requires specialized training and costs an average of \$2,000-\$4,000 per site in funds that property owners are often held liable, for the cost of the cleanup.

Crystal Meth

- How is it injected?



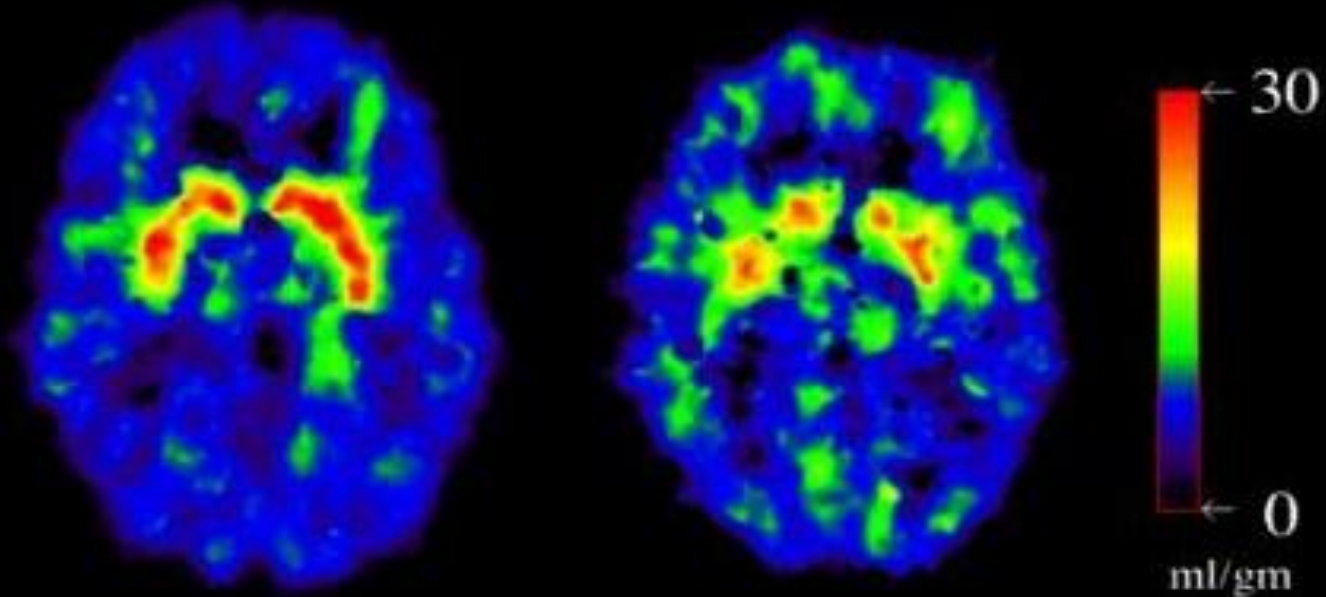
Smoked
Injected
Snorted
Swallowed



Brain damage can result from using Crystal Meth. Researchers have reported that as much as 50% of the dopamine producing cells in the brain can be damaged after prolonged exposure to even small amounts of meth.

Brain Damage?

Loss of Dopamine Neurons After Heavy Methamphetamine Use



Comparison Subject

METH Abuser

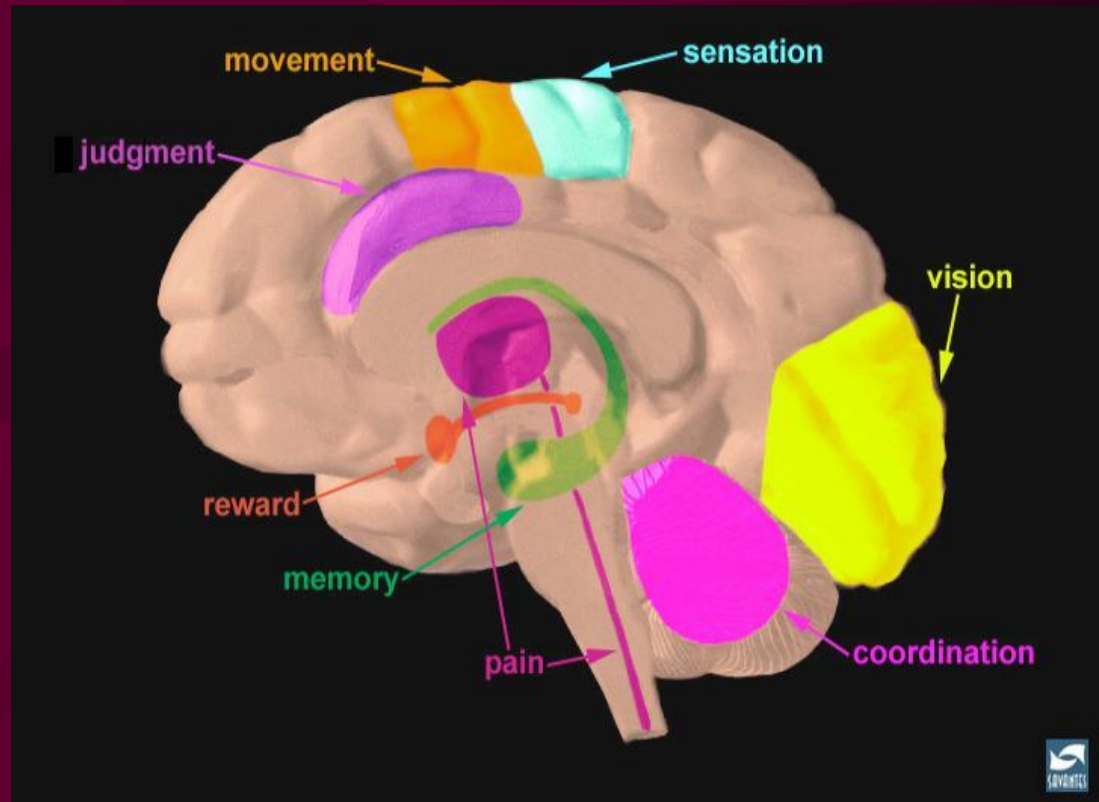
Source: Volkow, N.D. et al., Am J. Psychiatry, 158(3), pp. 377-382, 2001.

Dopamine

Pleasure

Movement

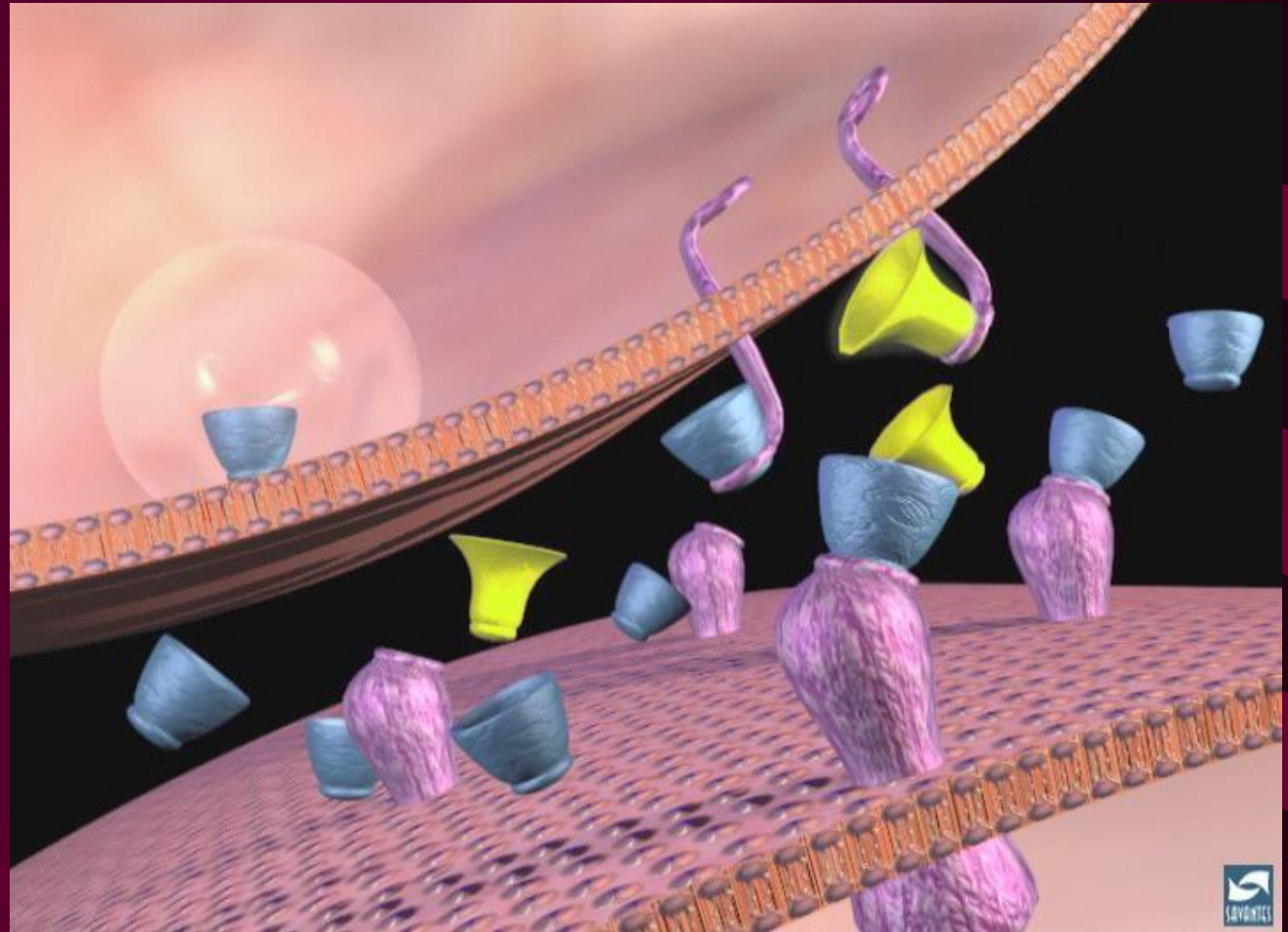
Coordination



Dopamine Transmission

Dopamine

Crystal Meth



Why Do People Start Using it?

- Improve mental and physical performance
- Alertness
- Weight loss
- Energy
- To Feel really good
- Social Influences:
Media, Friends, Family

Effects

- Increased body temperature
- Increased blood pressure
- Weight loss, malnutrition
- Increased heart rate
- Sweating
- Dry mouth
- Depression as it wears off



Effects

- Convulsions/Seizures
- Shortness of breath
- Insomnia: Increased wakefulness, breathing, and heart rate
- Continuous/excessive dilation of pupils
- Damage to internal organs; lungs, liver, heart, brain
- Open dry sores, “Crank Bugs”
- “Meth Mouth”
- Severe Burns

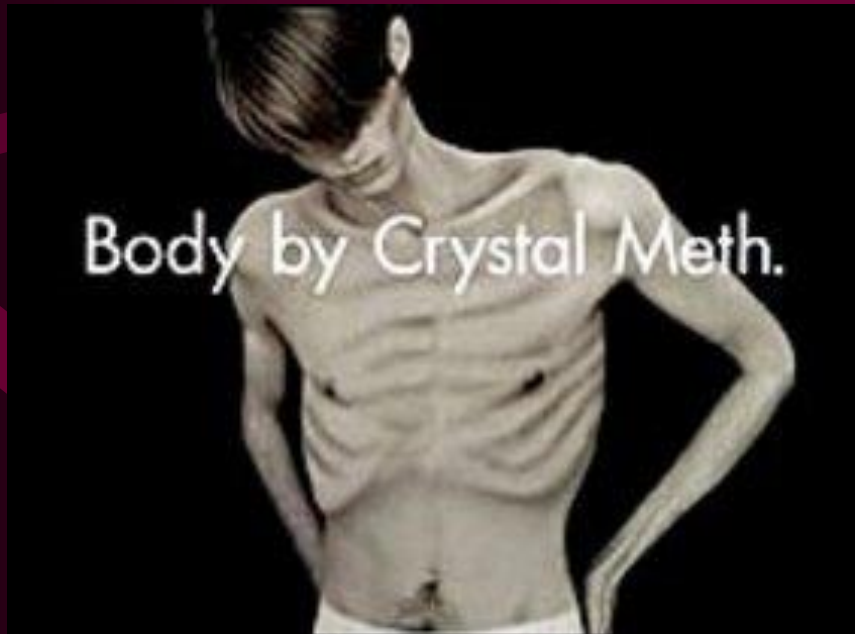
Crank Bugs:

The body's natural reaction is to try and eliminate the toxins. Users itch and scratch which causes the open sores.





The addict after and before the meth addiction



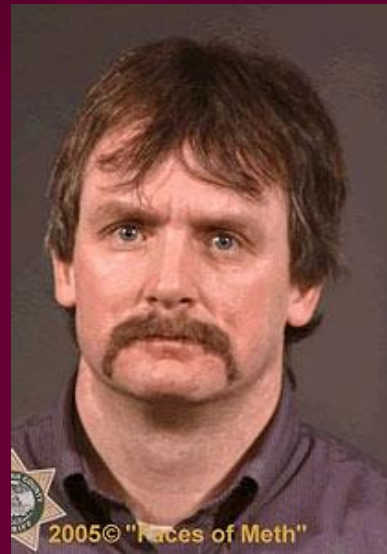


**2.5
Years
Later
(Age 42)**



2005© "Faces of Meth"

1.5 Years



2005© "Faces of Meth"

3 months later



“Meth Mouth”



Severe “Burns” or even “Death”





1 Year of Use

1 Year of Use

2 Months of Use

4 Years of Use



5 Years of Use

6 Months of Use

7 Months of Use

11 Months of Use



8 Months of Use

5 Years of Use

4 Months of Use

1.5 Years of Use



3 Months of Use

2.5 Years of Use

4 Years of Use

2.5 Years of Use



10 Years of Meth Use



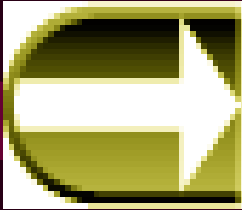
Puts Children at Risk:

Hundreds of children are neglected every year after living with parents who are meth "cooks." Children who reside in or near meth labs are at a great risk of being harmed in such a toxic environment, due to the noxious fumes which can cause brain damage and the explosive elements that go into making the drug. Cooking meth is extremely dangerous, and labs often catch on fire and explode.

A child living inside could overdose from meth left out by parents, suffer from attachment disorders or behavioral problems, be malnourished, physically or sexually abused and/or burned or fatally injured from a fire or explosion.

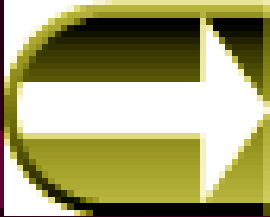
Children Exposed to *Meth*





Before You Risk It...

- **Stay informed.** Many people who use methamphetamine are sent people to the emergency room than use of any other club drug. Over half of these cases involved meth in combination with another drug, such as alcohol, heroin, or cocaine.
- **Know the risks.** There are a lot of risks associated with using methamphetamine, including:
 - Meth can cause a severe “crash” after the effects wear off.
 - Meth use can cause irreversible damage to blood vessels in the brain.
 - Meth users who inject the drug and share needles are at risk for acquiring HIV/AIDS.
- **Look around you.** Not everyone is using methamphetamine. In 2003, 3.2 percent of 12th graders reported having used methamphetamine.



Know the Signs...

How can you tell if a friend is using meth? It may not be easy to tell. But there are signs you can look for. Symptoms of methamphetamine use may include:

- Inability to sleep
- Increased sensitivity to noise
- Nervous physical activity, like scratching
- Irritability, dizziness, or confusion
- Extreme anorexia
- Tremors or even convulsions
- Increased heart rate, blood pressure, and risk of stroke
- Presence of inhaling paraphernalia, such as razor blades, mirrors, and straws
- Presence of injecting paraphernalia, such as syringes, heated spoons, or surgical tubing.

What can you do to help a friend who is using meth? Be a real friend. You might even save a life. Encourage your friend to stop or seek professional help.

What to do if you encounter a Clandestine Methamphetamine Laboratory

- **DO NOT** touch anything in the lab.
- **DO NOT** turn on any electrical power switches or light switches.
- **DO NOT** turn off any electrical power switches or light switches.
- **DO NOT** eat or drink in or around a lab.
- **DO NOT** open or move containers with chemicals or suspected chemicals.
- **DO NOT** smoke anywhere near a lab.
- **DO NOT** sniff any containers.
- **DO** decontaminate yourself and your clothing.
- **DO** wash your hands and face thoroughly.
- **DO** call your local authorities or DEA district office

Hospitals and Burn Units:

These chemical burns are tough to treat, and extremely expensive. Much of the care in these specialized units goes uncompensated, which puts a great financial strain on the hospitals and state medical programs.



Healing: Selena, 19, was burned when a lab exploded, spewing molten plastic into her face.

Crime:

Both teenagers and adults addicted to the drug and who have no income to pay for their habit, may steal valuables from their own homes or even their friends' homes. High on meth, there's no telling what a person would do if provoked - people have been killed for not owing up to a drug payment or coming through on a transaction.

Credits

- **Charles Lichon, R.S., M.P.H., Creator of Children's EH Program, Midland County Health Department (CHD) Michigan**
- **Nancy Atwood, M.S., Midland CHD (MI) Sanitarian**
- **Christine Rogers, Meth Response Coordinator, Kalamazoo CHD, MI**
- **Robert Wolfe, R.S., Midland CHD (MI) Sanitarian**
- **John Demerjian and Linda Van Orden, Wayne CHD, MI, Body Art**
- **National Environmental Health Association (NEHA.org) for website storage and oversight.**

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