

# **Meth Labs, Meth Lab Response and Meth Users**

**For Firefighters and EMS  
v1.0**

**Firefighters Support Foundation**

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**Permission**

- ❖ Define clandestine laboratories.
- ❖ Identify the 5 types of clandestine labs.
- ❖ Describe the 4 most common meth manufacturing methods.

## Training Objectives

- ❖ Identify the 5 meth lab processes.
- ❖ Identify meth users and the dangers they present to public safety personnel

## **Training Objectives (2)**

If you Google Meth,  
How many results do you think you'll get?

Answer: **14,800,000**

**How Prevalent is Meth?**

An illicit operation consisting of a sufficient combination of apparatus and chemicals that either has been or could be used in the manufacture or synthesis of controlled substances.

## **Clandestine Laboratory Defined**

Clandestine laboratories are classified into five separate categories:

- 1) Extraction Laboratories
- 2) Conversion Laboratories
- 3) Synthesis Laboratories
- 4) Tableting Laboratories
- 5) Multiple Process Laboratories

## Types of Labs

The finished drug is removed from raw (plant) or pharmaceutical materials by use of chemical solvents. The structure of the drug is not altered. For example:

- ❖ Morphine from Opium
- ❖ Hashish or Hash Oil from Cannabis
- ❖ Ephedrine from Pseudoephedrine

**Extraction Laboratories**



One form of a drug is changed into a more desirable form. The drug's chemical structure remains unchanged. For example:

- ❖ Cocaine Hydrochloride to "Crack"
- ❖ Methamphetamine to "Ice"

**Conversion Laboratory**

Raw materials combined through a chemical process to produce a desired drug. The original materials may already be controlled substances. For example:

- ❖ Meth from Pseudoephedrine
- ❖ PCP from Piperidine
- ❖ Heroin from Morphine

**Synthesis Laboratory**

The forming of a finished drug product into a dosage unit by use of a machine. For example:

- ❖ Methaqualone (Quaalude) powder into pill form
- ❖ LSD to Blotter Paper or Window Panes
- ❖ GHB to Dosage Units

**Tableting Laboratory**

Different types of labs or processes at the same location. For example:

- ❖ Pseudoephedrine extraction lab with a methamphetamine synthesis
- ❖ Methamphetamine synthesis lab with methcathinone synthesis

**Multiple Process Laboratory**

In a clandestine laboratory, basic types of chemicals are necessary in order to produce the desired narcotic. They are :

- 1) Precursor Chemicals
- 2) Reagent Chemicals
- 3) Catalyst Chemicals
- 4) Solvent Chemicals

## **Basic Chemical Requirements**

A chemical that is essential to the production of a controlled substance and for which no substitution can be made. For example:

- ❖ Pseudoephedrine/Ephedrine for Meth
- ❖ Piperidine for Phencyclidine (PCP)
- ❖ Ephedrine for Methcathinone (CAT)

## Precursor Chemicals



# Precursor Chemicals

Chemicals which react upon precursor causing it to chemically change. For example:

- ❖ Iodine - Meth
- ❖ Sulfuric Acid (Battery Acid) - Meth
- ❖ Hydrochloric Acid (Muriatic Acid) - Meth
- ❖ Sodium Hydroxide (Red Devil Lye) - Meth
- ❖ Salt - Meth
- ❖ Anhydrous Ammonia - Meth
- ❖ Sodium Cyanide - PCP

## Reagent Chemicals



# Reagent Chemicals



# Reagent Chemicals



# Reagent Chemicals



# Reagent Chemicals



# Reagent Chemicals

Largest Buried Cylinder Ever Located in US, Davidson County, NC



# Reagent Chemicals



Chemicals which speeds up a reaction process and/or causes it to go to greater completion. For example:

- ❖ Red Phosphorus - Meth
- ❖ Lithium Metal - Meth
- ❖ Sodium Metal - Meth

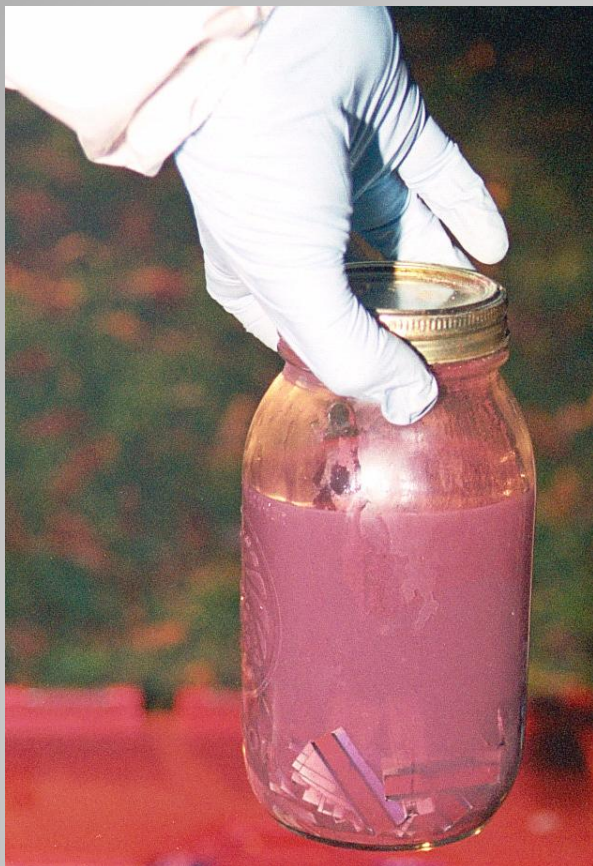
**Catalyst Chemicals**

# Catalyst Chemicals





# Catalyst Chemicals



# Catalyst Chemicals



A medium (liquid) in which a chemical operation takes place. For example:

- ❖ Coleman Fuel /Camp Fuel
- ❖ Acetone
- ❖ Denatured alcohol
- ❖ Starting fluid
- ❖ Naphtha
- ❖ Methanol
- ❖ R11
- ❖ Toluene
- ❖ Ether
- ❖ Freon
- ❖ Any Other Organic Solvent

## Solvent Chemicals

## Red P Method:

### ❖ *Chemicals needed*

- ❖ Ephedrine or pseudoephedrine
- ❖ Red phosphorus
- ❖ Hydriodic acid (iodine crystals)
- ❖ Sodium hydroxide
- ❖ Organic solvents (ether, Freon, acetone)
- ❖ Hydrogen chloride gas (sulfuric acid and salt)

### ❖ *A Heat Source is Required*

# Meth Production Methods

## Anhydrous Ammonia Method:

### ❖ *Chemicals needed*

- ❖ Ephedrine or pseudoephedrine
- ❖ Anhydrous ammonia
- ❖ Sodium or lithium metal
- ❖ Sodium hydroxide
- ❖ Organic solvents (ether, freon, acetone)
- ❖ Hydrogen chloride gas (sulfuric acid and salt)

❖ *A Heat Source is NOT Required*

# Meth Production Methods

## Condensed Ammonia Method:

### ❖ *Chemicals needed*

- ❖ Ephedrine or pseudoephedrine
- ❖ Ammonium nitrate fertilizer 34-0-0
- ❖ Sodium or lithium metal
- ❖ Sodium hydroxide
- ❖ Organic solvents (ether, freon, acetone)
- ❖ Hydrogen chloride gas (sulfuric acid and salt)

❖ *A Heat Source is NOT Required*

# Meth Production Methods

# Meth



# Meth





# Meth

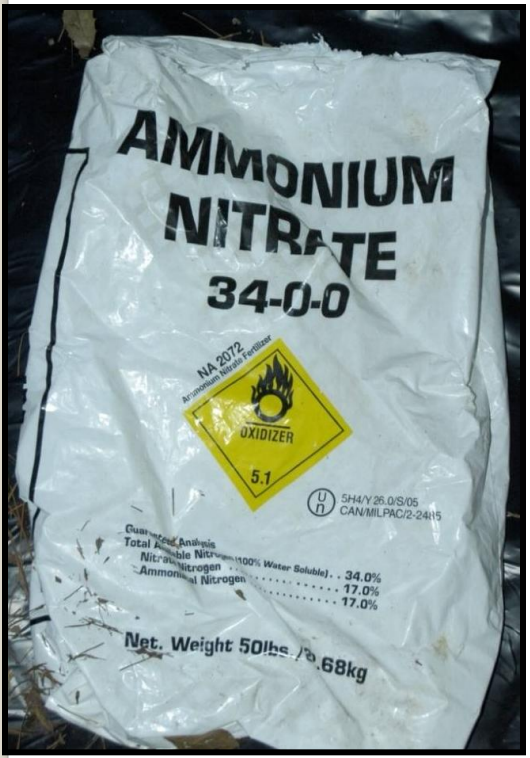


# Meth









# Current Trends in Labs

- ❖ Lab seizures are increasing in every state.
- ❖ Ingredients are readily available.
- ❖ Recipes are on the Internet.
- ❖ Meth use is on the rise.

# Meth Definition

Methamphetamine is a synthetic stimulant drug which induces a strong feeling of euphoria and is highly psychologically and physically addictive. Pure methamphetamine is a colorless crystalline solid and is sold on the street as ice, glass or crystal.

## Meth Definition (Cont.)

It is also sold as a less pure crystalline powder called crank or speed, or in rock formation (like crack cocaine) called tweak, dope or raw.



# Powder Methamphetamine



Tweak / Dope / Raw



Methamphetamine



# ICE



# One Pound of Ice



# Why Methamphetamine?

- ❖ *Easy to make*
- ❖ *Easy to get the necessary ingredients*
- ❖ *HUGE profit margin*



# Meth Facts & Pharmacology

- ❖ Central nervous system stimulant like cocaine, but much stronger
- ❖ Can be injected, smoked, snorted, or taken orally

# Meth Facts & Pharmacology (2)

- ❖ Increases heart rate, blood pressure, body temperature, breathing rate, and alertness
- ❖ Dilates pupils, produces euphoria, a sense of increased energy, and tremors
- ❖ High doses or chronic use have been associated with increased nervousness, irritability, and paranoia
- ❖ Withdrawal from high doses produces severe depression

# Methamphetamine Effects

Snorting methamphetamine produces a high within 3 to 5 minutes, while oral ingestion produces a high within 15 to 20 minutes. Oral ingestion or snorting produces a long lasting high, instead of an immediate rush, that can continue for as long as 12 to 15 hours depending on the amount of methamphetamine consumed. The rush and high are caused by the...



# Methamphetamine Effects (2)

...release of very high levels of the neurotransmitter dopamine into areas of the brain that regulate feelings of pleasure. One of the common uses for methamphetamine is the increase in sex drive that is experienced. As a result large amounts of pornography are generally located at the residences where methamphetamine users reside.

# Methamphetamine Effects (3)

## **Long Term Effects:**

Long term methamphetamine use has many damaging effects, including addiction. Addiction is characterized by compulsive drug seeking and drug use that is accompanied by functional and molecular changes in the brain. In addition to being addicted to methamphetamine, chronic users exhibit symptoms that include violent behavior...

# Methamphetamine Effects (4)

...anxiety, confusion, and insomnia, They also display a number of psychotic features, including paranoia, auditory and visual hallucinations, mood disturbances, and delusions. The paranoia can result in homicidal and suicidal thoughts. Tolerance can develop and result in the users using more methamphetamine in an attempt to obtain the initial feelings of...

# Methamphetamine Effects (5)

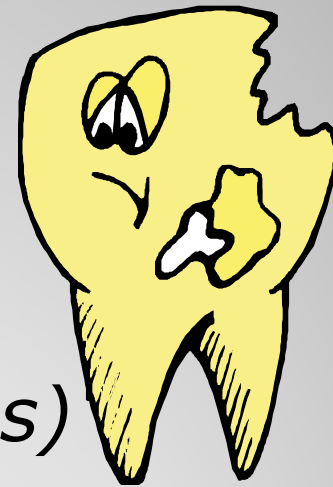
...euphoria. In some cases, users forgo food and sleep while using methamphetamine. The users indulge in what is called a "run" where they will inject up to a gram of Methamphetamine every 3 to 4 hours for several days. This behavior causes an extreme increase in violent and psychotic behavior. In these cases, there is also an increase in visual and auditory hallucinations. As a result of the repeated...

# Methamphetamine Effects (6)

...abuse, it has been determined that as much as 50% of the dopamine producing cells in the brain are damaged. It has also been determined that nerve cells containing serotonin are damaged even more extensively.

# Meth Physical Effects

- ❖ *Weight loss*
- ❖ *Sweating*
- ❖ *Body Odor*
- ❖ *Bad Teeth or TOOTH*
- ❖ *Open sores (Speed Bumps)*
- ❖ *Meth Bugs*



# Meth Mouth



# Open Sores





# Common Diseases

- ❖ *Hepatitis*  
(A,B,C)
- ❖ *Cholera*
- ❖ *HIV/AIDS*
- ❖ *Herpes*
- ❖ *TB*
- ❖ *Hemophilia*



# Detection of Mobile Clan Labs

Clan Labs are moved at least once, and likely many times. Patrol Units have the greatest opportunity to observe the travel of the Clan Lab, and can legally interfere with their movements.



# Common Vehicles Traits

- ❖ Frequently older undistinguished ordinary “junker” vehicles.
- ❖ Rear & side windows may be mirrored, darkened, or covered.
- ❖ Interior may have evidence of chemical stains and/or corrosion.
- ❖ Occupants do not have a trunk key.

## Common Vehicles Traits (2)

- ❖ Windows open during rain, or even cold days.
- ❖ Vehicle may pull U-haul or rental trailer.
- ❖ Original paint on trailer may be covered with new or different paint.
- ❖ Mud caked on tires, bumpers, quarter panels.
- ❖ Camping gear inside the vehicle.
- ❖ Vehicle contents covered with tarps, blankets.

# Common Vehicles Traits (3)

- Loose or spent ammo seen on floor, firearms may be in full view.
- Ephedrine, NO-DOZ, commercial cold medicine or caffeine tabs may be visible.
- Operators usually don't own vehicle.
- Registration may be fake or altered.
- Vehicle registered out of state.
- Tag may be on wrong vehicle, or altered.

# Occupant Behaviors

- ❖ Observe Body Language
  - ❖ Nervous, anxious, hurry to get stop over...
  - ❖ Excessive Sweating
- ❖ Attempt to Divert Attention
  - ❖ Too cooperative, too rude, driver exits quickly and approaches your vehicle.
  - ❖ Providing Information pertaining to other drug activity
- ❖ Speech Patterns
  - ❖ Use of street slang, use of drug terms
- ❖ Physical Condition of Driver
  - ❖ Chemical burns and/or injuries, on person or clothes

# Occupant Behaviors (2)

## ❖ Chemical Odors:

- ❖ Cannabis, Organic Solvents, Cat Urine, Ammonia

## ❖ Odors coming from:

- ❖ Occupants, Vehicle, Vehicle contents

## ❖ Electronic Equipment:

- ❖ Scanners, Walkie Talkies, Cell Phones, CB radios, Radar detectors
  - ❖ **NOTE: They do listen to our radio traffic**

# Vehicle Contents

- Lab Apparatus/Equip.
- Extension Cords
- Gas Generators
- Lighting Set Ups
- Exhaust Fans
- Assorted size boxes
- Bulk Ephedrine tablets
- Clear/Amber glass bottles
- Cardboard/Fiber drums
- 5 gallon metal cans
- Labels removed or covered from containers
- Compressed Gas Cylinders, various sizes
- LP Gas containers which may contain other gases
- Ice Chests with block or party ice, or dry ice
- Bottles of cutting agents
- Common solvents, e.g.: starting fluid, denatured alcohol, Coleman fuel



# Assorted Documents

- ❖ Drug production recipes/notes
  - ❖ Handwritten or typed
- ❖ Diagrams
  - ❖ Schematics of chemistry lab setups
- ❖ Handwritten or typed lists of chemicals
- ❖ Lists of glassware or other lab equip.
- ❖ Chemistry books
- ❖ Articles on chemistry

# Assorted Documents (2)

- Receipts for rental of:
  - Apartments/homes
  - Storage Lockers
  - Safe Deposit Boxes
  - Vehicles
- Business Cards of:
  - Lab supply houses
  - Real Estate Companies
  - Equip. Rentals
- Receipts for Purchase
  - Chemicals, Pseudoephedrine, Ephedrine etc...

# Assorted Documents (3)

- ❖ Maps or written directions to remote or urban areas
- ❖ Business letterhead for fictitious companies
- ❖ Chemical and lab supply catalogs
- ❖ Customer lists and telephone numbers
- ❖ Photos of labs, people, vehicles, etc...

# Residences

- ❖ The most common location for Clan Labs are residences.
- ❖ Any Room can contain a Clan Lab, including Closets & Bathrooms.
- ❖ **BE ON THE LOOKOUT FOR CONCEALED OR HIDDEN ROOMS OR COMPARTMENTS**

# Labs in Residences

- ❖ High fences
- ❖ Exhaust fans running constantly
- ❖ Covered windows
- ❖ Temp. power to an out building
- ❖ Elec. cords in unusual places

## Labs in Residences (2)

- ❖ Accumulated Chemical cans and other containers.
- ❖ Unusually large amounts of trash.
- ❖ Outside Surveillance Cameras.
- ❖ Bars on Windows & doors.
- ❖ Lights on all night.
- ❖ Frequent traffic, usually late at night.

# Labs in Residences (3)

- ❖ People taking frequent breaks outside the house to smoke or to get air.
- ❖ Waste water draining outside
- ❖ Modifications to the house or particular rooms.
- ❖ Areas of dead or discolored grass
- ❖ Flooded Septic Systems
- ❖ Chemical Odors

# Confined Space Labs

A confined space is any space:

- 1) That has limited or restricted means of entry or exit;
- 2) Is large enough for a person to enter to perform tasks, and
- 3) Is not designed or configured for continuous occupancy.





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