

Drugs of Abuse:

Training for community personnel



Upstate New York Poison Center

UPSTATE
MEDICAL UNIVERSITY

Public Education Team



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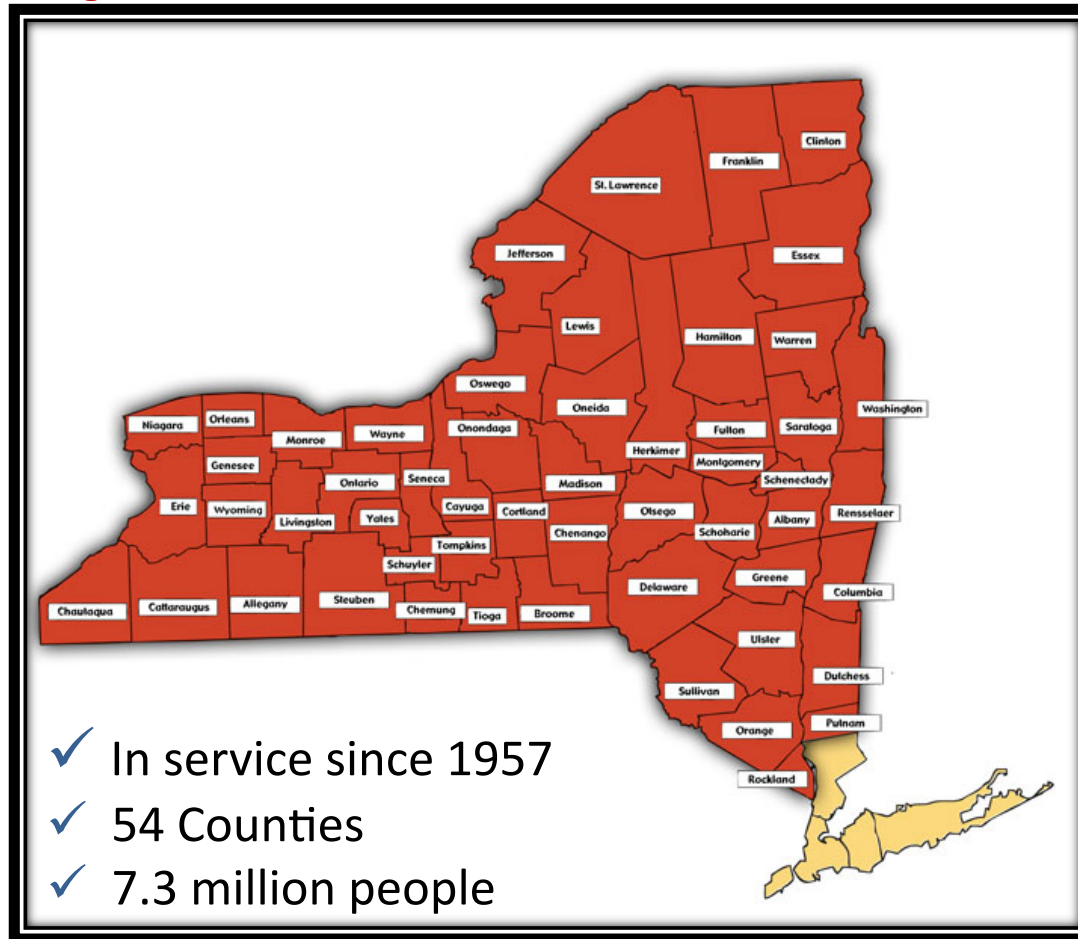
Objectives

Our goal: Participants will be able to:

- Identify names of new drugs of abuse
- Recognize symptoms related to these drugs
- List some of the dangers of these drugs
- Program cell phones with the number of the Upstate New York Poison Center



Service Area of the Upstate NY Poison Center



Unintentional Poisonings

Most poisonings are accidents.

They are not supposed to happen...but they do!



**Medications account
for 70% of all ED visits
for ages 18 and under**



Unintentional Poisonings

ABUSE AND MISUSE OF DRUGS

“use not intended to cause harm”



Risk Factors

- Little perceived danger/damage
- Readily available
- Easy to conceal & use
- Inexpensive
- Social/peer pressure
- Legal consequences?
- Curiosity
- Little sense of mortality



Bath Salts

Bath



These bath salts have NOTHING to do with a relaxing moment in a bathtub



Bath Salts

History

- ❑ Discovered in 1929, re-discovered in 2003
- ❑ 2009, in UK, 4th most popular street drug
- ❑ 2010, 304 cases reported to US Poison Centers
- ❑ 2011, 6,138 cases reported to US Poison Center



Bath Salts

Bath Salts

- Man-made amphetamine-like drug
- Most often in powder form
- Clearly marked “not for human consumption”
- Can contain the cathinones:
 - Mephedrone (4-MMC)
 - MDVP (methylenedioxypropylvalerone)
 - Methylone



“It may be legal in some states, but so is rat poison”

<http://abovetheinfluence.com/facts/drugsbathsalts>



Over the counter = SAFE?

"...because it's not illegal yet per the federal government, people falsely assume that it must be safe, and nothing could be further from the truth. This is a chemical of concern, and we're taking aggressive steps to determine whether or not it can be controlled."

Drug Enforcement Administration



Bath Salts

- Cheap and produce a “high” like cocaine with hallucinations
- Usually snorted or eaten
- Snorted: rapid onset within a few minutes
Eaten: onset within 45 mins. to 2 hrs.



When asked if the subjects were still standing there. Mr. Sellers replied, Yes, don't you see them?" Officers could not see the subjects."



<http://www.timesnews.net/article/9042961/police-home-intruders-were-bath-salts-hallucination>

Bath Salts

Bath salts

NYS- Generally purchased online or on the street

Sold as plant food or incense, marked “not for human consumption”

Generally not detected in standard drug tests

Names include: Cloud Nine, Eclipse, Ocean Burst, Purple Rain, Pixie Dust ...



Bath Salts

Bath Salts

Affect the central nervous, causing psychosis
Affects the heart by increasing blood pressure and heart rate

Duration 3 to 4 hours, with mild symptoms for
6 to 8 hours

Side effects :

Anxiety/Panic	Dehydration
Severe paranoia	Chest Pain
Violent/Suicidal behavior	Hallucinations
Seizures	Liver failure



Bath Salts



- December 8, 2011- The House voted 317 to 98 to ban synthetic drugs. The Senate companion bill is held up by an objection from Sen. Rand Paul (R-KY)
- January 2012, NYS Health Commissioner Shah placed a state health ban on bath salts
- Bath salts are still available and accessible
- New synthetic, man-made drug manufacturers get around any laws by substituting different chemicals ready to mix, package and market

“While several states have banned the sale of bath salts, ultimately it will have to be a federal law that labels these as a schedule 1 drug, which means it has no medicinal value but a high potential for abuse, and declare them illegal.”

<http://www.webmd.com/mental-health/features/bath-salts-drug-dangers> Zane Horowitz, Oregon Poison Center



Bath Salts

16 year old boy called dad after taking 1 gram of “cloud nine”, reporting he just wanted the drug out of his system.

Over 2 days, while at home, he experienced panic and anxiety. Suffering from hallucinations, Dickie “sees” 20 police cars outside. Panicked he slits his own throat with a butcher knife yet survives.

At hospital drug tests, CT scan are normal.

Returning home, on suicide watch, with dad sleeping next to him, Dickie gets out of bed, shoots himself in the head resulting in death.

Both parents are physicians.



Bath Salts

Internet ad: (exact quote)

<http://bath-salts-direct.com>: "Some people find the rescue

in drinking alcohol, smoking cigarettes or even taking drugs.


All that things are really harmful but we would like to introduce you drug that is harmless to your health. This is Bath salt drug. It doesn't really mean drug in the true sense."

Long term effects? Don't know yet!





Cross-Dressing Man High on Bath Salts Kills Neighbor's Goat

 **Brian Moylan** — Police in Charleston, West Virginia, found Mark Thompson **wandering around the woods** in a bra and panties and covered in the blood of his neighbor's pygmy goat, which he had killed in his bedroom. He had been **high on "bath salts"** for three days.

Synthetic Marijuana



Synthetic Marijuana

History

- 1995 **John Huffman**, conducting cancer research at Clemson, manufactured first synthetic cannabinoids
- 2004 “Spice”, the first commercial brand of synthetic marijuana went on sale in Europe in 2004
- 2010 AAPCC reports 2,906 calls to US Poison Centers
- 2011 AAPCC reports 6,959 calls to US Poison Centers

Huffman himself likens smoking synthetic marijuana as playing Russian roulette since you don't know what it's going to do to you.



Synthetic Marijuana

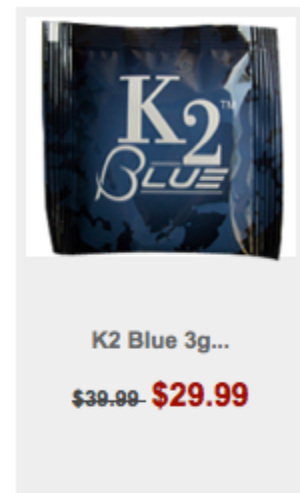
Synthetic cannabinoids are a variety of man-made chemicals that mimic "THC", the active compound in marijuana

The chemicals are sprayed on herbs, marketed and sold as "herbal incense"

The chemicals are much more potent than THC

While packaging states "not for human consumption" it does not list the contents on package

Usually smoked but can be ingested or mixed with liquid then drunk



www.upstatepoison.org

Synthetic Marijuana

Synthetic cannabinoids

- Cheap and easily accessible
- High lasts an average of 10-30 minutes, while reports from users report effects lasting for 1-2 hours
- Popular because does not show up on standard drug tests but can be detected IF a more specialized test is ordered
- Many reported thinking if a product is sold “over the counter” must to safe.



Synthetic Marijuana

Reported Effects:

- Relaxation
- Space/time alteration
- Fatigue
- Appetite stimulation
- Alteration of visual, auditory, and olfactory senses



Synthetic Marijuana

Adverse Effects

- Agitation
- Seizures
- Tremors
- Hallucinations
- Severe Paranoia
- Delusions
- Kidney Failure
- Death



2010 there was a significant increase in daily use of marijuana in 8th, 10th and 12th grades, reaching 1.2%, 3.3%, and 6.1% respectively. Monitoring the Future Survey



Synthetic Marijuana

What happens to people who use synthetic marijuana?

“Hello ALL, I have been smoking Synthetic Marijuana for about 1 year

For the past month and currently I have been sick.

My short term memory is not what is use to be.

A general sick feeling all over.

It seems like I maybe suffering from withdrawal, and smoking this crap is all my mind wants me to do. I’m no addict and I thought that this stuff was similar to Marijuana but it’s not. The anxiety is the worse, it’s like something grab hold of my brain and tells me to panic...” Jo



Synthetic Marijuana

ED doctor at Samaritan Medical Center, **Watertown** says she's seen more and more patients for using synthetic pot since 2009 and the consequences can be serious. <http://wrvo.fm/post/state-health-commissioner-bans-sale-synthetic-marijuana>

A mother in **Albany** says she lost her son after he smoked synthetic marijuana www.9wsyr.com/...using-synthetic/qKKiZYbem0erELMk-nB3sw.csp

Troopers in Collins charged G.R. Thomas, 19, of **Rochester**, with promoting prison contraband after corrections officers at Collins Correctional Facility found her in possession of K2 while attempting to visit a prisoner. <http://www.observertoday.com/page/content.detail/id/569967.html>

The principal of **West Seneca** Middle School (**Buffalo area**) says since the beginning of the school year, three students have been treated at a local hospital after using synthetic marijuana. <http://www.wgrz.com/news/article/163862/1/Synthetic-Marijuana-Concerns>

Synthetic Marijuana

March 01, 2012

DEA extended its emergency ban on **five** synthetic cannabinoids for another 6 months

March 29, 2012 New York State bans “synthetic marijuana”

Federal legislation that would ban both synthetic marijuana and new synthetic stimulants ("bath salts") has passed the House, but is blocked in the Senate by a hold placed on it by Sen. Rand Paul (R-KY).

New compounds are synthesized on an almost daily basis



MDMA/Ecstasy

History

MDMA was first synthesized by a German company in 1912 - to stop bleeding

During the 1970s, some psychiatrists began using MDMA as a psychotherapeutic tool, though not approved by the FDA for use in humans

Use escalated in the late 80's at raves among college students and young adults

1985 – Classified as a Schedule I drug, illegal to possess



100.00 mg

\$15.0



MDMA/Ecstasy

Ecstasy, is a synthetic drug chemically similar to the stimulant methamphetamine and the hallucinogen mescaline. MDMA effects brain cells regulate mood, aggression, sexual activity, sleep and sensitivity to pain.

MDMA has a similar chemical structure to amphetamines. Users experience feelings of increased energy, euphoria, emotional warmth, and distortions in time, perception, and tactile experience.

X, E, XTC

E-bomb

Molly

Scooby Snacks

Skittles

Vitamin E or
Vitamin X

Smartees

	ADAM	EVA 130 mg	Amor Bruchrille	Love Herz	Herz Bruchrille	Drops Bruchrille	Sonne Bruchrille	Halbmond Bruchrille	Herzpfel Bruchrille	VW Bruchrille
Käfer Bruchrille	Mercedes	Triple Five	V.I.P.	CAL Bruchrille	PT Bruchrille	Schlitzauge Bruchrille	ANADIN	Boomerang	Bulls Bruchrille	Delphin Bruchrille
Elephant Bruchrille	Hund Bruchrille	Pigs Ringeschwanz	Pelikan Bruchrille	Taube Bruchrille	Friedens- taube	Spatz Bruchrille	Vogel	Kermit Bruchrille	Feuerstein Bruchrille	Batman
Superman	Popeye Bruchrille	Chlmssee Bruchrille	Fido Bruchrille	Häuptling Bruchrille	Sonic SonicBruchrille	Smiley SMILE	Playboy Bruchrille	Schwalbe	Dino Bruchrille	Anker Bruchrille
Pilz Bruchrille	Olympics	Hammer & Sichel	Gorbys CCCP	Kleeblatt Kleeblatt	Kleeblatt Bruchrille	Liebesymbol Bruchrille	Yellow Sunshine	Pink Panther	Snowball	Ying Yang



MDMA/Ecstasy

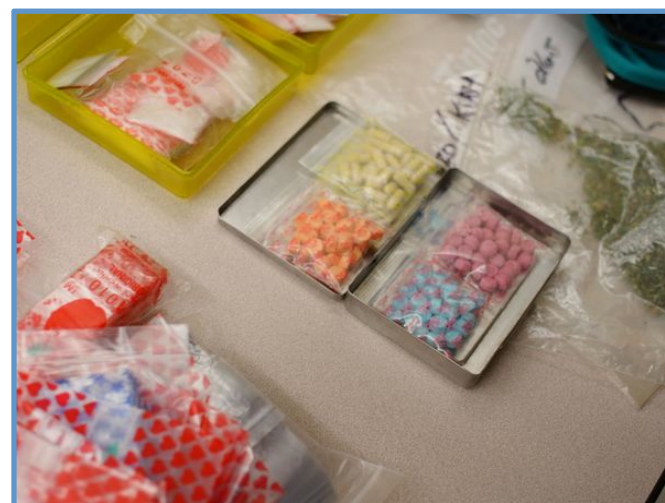
Pills/capsules, orally ingested or snorted

Users report feeling effects within 30–60 minutes of consumption

Peak at approximately 1–1 1/2 hours

Plateau lasts about 2–3 hours

Rarely consumed with alcohol, as alcohol is believed to diminish its effects



	Methylone	bk-MBDB Methylone	1 1
	Yellow Crown	BZP Caffeine	1 1
	Green Monkey	Caffeine Lidocaine Procaine 5-MeO-DIPT	3 3 2 1
	Orange Monkey	Caffeine Lidocaine Procaine 5-MeO-DIPT	3 3 2 1
	Red Monkey	Caffeine Lidocaine Procaine 5-MeO-DIPT	3 3 2 1

<http://www.ecstasydata.org/>



MDMA/Ecstasy

Often produces feelings of empathy, love, and emotional closeness to others

Increased arousal

Euphoria

Bruxism – grinding teeth

Teeth clenching, jaw muscles tighten

Associated with techno music/raves

Increased body temperature



http://channel.nationalgeographic.com/channel/drugs-inc/ecstasy-pictures/#/handful-of-molly_44737_600x450.jpg



MDMA/Ecstasy



One study - 43 percent of those who reported ecstasy use met the accepted diagnostic criteria for dependence

MDMA can produce confusion, depression, sleep problems, drug craving and severe anxiety. (*NIDA*)

Lifetime use increased among individuals aged 12 years or older, from 4.3 percent (10.2 million) in 2002 to 5.7 percent (14.2 million) in 2009. (*NSDUH*)

In the US, MDMA is a Schedule I illicit drug with no accepted medical use or benefit, alongside LSD, cannabis, and heroin. It is illegal and a conviction for possession can carry long prison sentences.

Cottler LB, Womack SB, Compton WM, Ben-Abdallah A. Ecstasy abuse and dependence among adolescents and young adults: Applicability and reliability of DSM-IV criteria. *Human Psychopharmacol* 16:599–606, 2001



Methamphetamines



Methamphetamines

Crystal meth, ice, crank, meth



Meth- “WORK PILLS”



Meth History

- ❑ **1950's** United States, legally manufactured as a stimulant “pep pills (Dexedrine, Methedrine)
- ❑ **1960's** Injectable meth gains popularity
- ❑ **1970's** Restricted by the Controlled Substance Act, decreases usage
- ❑ **1990's** Rebirth-Production of methamphetamine in homes for recreational use became popular and continues
- ❑ **2006** US law enacted to regulate over-the-counter sales of ephedrine, pseudoephedrine and phenylpropanolamine products due to their use in manufacture of “meth”



1970's- Hell's Angels produce amphetamines using a chemical designed to clean swimming pools



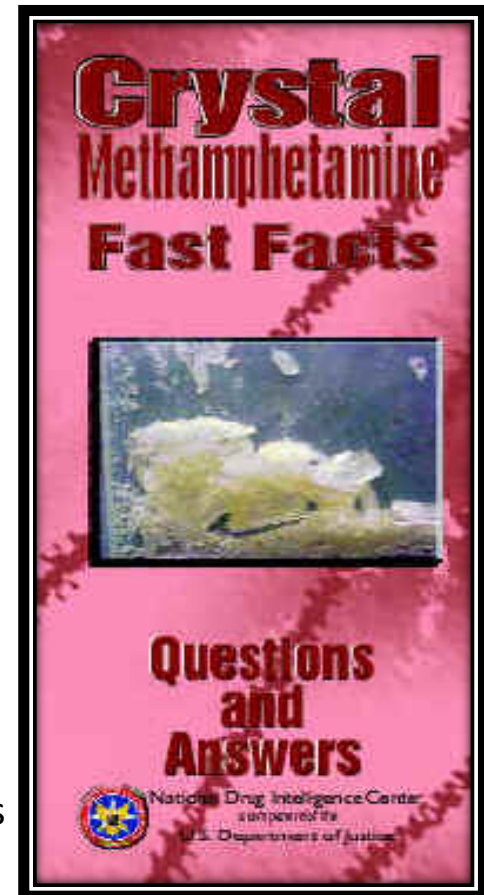
Methamphetamines

CRYSTAL METH, ICE, CRANK, METH

Crystal methamphetamine

- Colorless, odorless, bitter tasting
- Powerful and highly addictive synthetic (man-made) stimulant
- Typically resembles small fragments of glass or shiny blue-white "rocks" of various sizes
- As a member of the amphetamine family, it activates the central nervous system
- Like cocaine, it is a powerful "upper" that produces alertness and elation, along with a variety of adverse reactions

National Drug Intelligence Center
U.S. Department of Justice
American Council for Drug Educators



Methamphetamines

Crystal meth, ice, crank, meth

Methods

- Crystal methamphetamine typically is smoked using glass pipes similar to pipes used to smoke crack cocaine
- Smoking or ingestion = quickest high
- Can be snorted or ingested
- High may last 12 hours or more



National Drug Intelligence Center
U.S. Department of Justice
NIDA



Methamphetamines

Crystal meth, ice, crank, meth

Initial use

Users report feeling energetic, self-confident

Continued use –higher dosage

Users report being “wired”, agitated

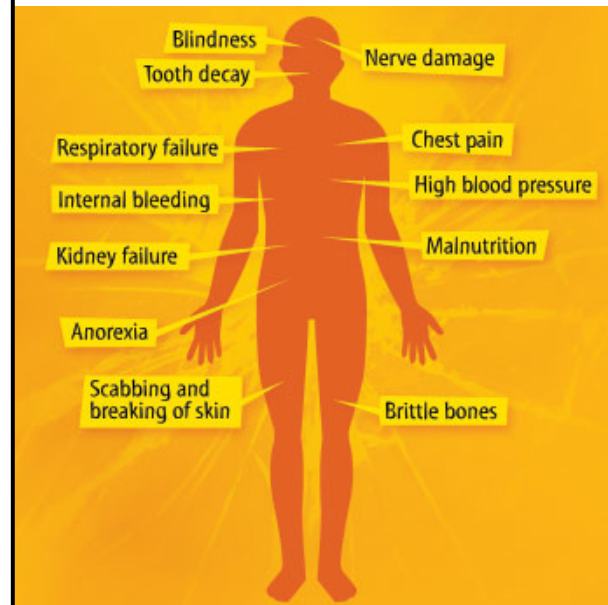
After days of use

Users report feeling depression yet agitated, lethargy, long sleeps

Prolonged high-dose or long binges

Psychotic behavior = paranoid, voices, delusions

Meth panic can result in extreme violent behavior



<http://www.anti-meth.org/photos2.html>



Methamphetamines

Crystal meth, ice, crank, meth

Effects of meth use

- rapid heart rate
- increased blood pressure
- damage to blood vessels in the brain
- seizures
- convulsions
- death

Chronic use can cause

- inflammation of the heart lining, stroke,
- heart attack, changes in brain function,
- death



The Face of Meth

Methamphetamines

Crystal meth, ice, crank, meth

“Meth Mouth”

Complication from use of methamphetamine

Signs can start to be seen within a few months

Causes: poor oral hygiene, dry mouth, malnourishment, drug induced clenching and grinding of teeth



Methamphetamines

Crystal meth, ice, crank, meth

Consequences:

This drug is a Schedule II drug, an illegal substance
The punishment for those being caught with illegal supply of
crystal meth to face at least seven years imprisonment.

Some heartland and southeastern states hit hard by meth abuse,
consider prescription-only legislation for pseudoephedrine. But heavy
lobbying by the pharmaceutical industry stymie their efforts.



WET

PCP = angel dust, embalming fluid, ozone, rocket fuel, and wack



*smoking =
illey, wet, or fry*



PCP

(phencyclidine)

History

1926 First synthesized

1952 Patented by a pharmaceutical company for human use

1967 Marketed as a veterinary anesthetic

AND

Began to emerge as a recreational drug in major cities in the US



“Getting WET”

- A cigarette is dipped into liquid PCP (phencyclidine)
- Ingested through smoking
- Also known as "boat" or "water"
- Produces a numbing effect
- Feelings of dissociation
- Mistaken belief that the liquid is made up of or contains real embalming fluid



WET

Effects depend on:

- Amount of PCP

- Users past drug experience

- Circumstances of usage (location, with people, emotional state)

Can include:

- visual and auditory hallucinations

- euphoria

- feeling of invincibility

- increased pain tolerance

- anger

- forgetfulness

- paranoia



Some report an overwhelming desire to disrobe, and a strong distaste for meat

The high lasts from six hours to three days.

WET

- PCP is an addictive drug
- Use often results in psychological dependence, craving, and compulsive behavior
- PCP produces unpleasant psychological effects, and users often become violent or suicidal
- High doses of PCP can cause seizures, coma, and even death (often as a consequence of accidental injury or suicide while under the drug's effects)
- At high doses, PCP's effects may resemble the symptoms associated with schizophrenia, including delusions and paranoia which may take 2 weeks to disappear.
- Long-term use of PCP can lead to memory loss, difficulty with speech or thought, depression, and weight loss.



WET

The Kansas City Fire Department ambulance responded to a call of someone having a seizure just after noon Saturday in the 2400 block of Park Avenue.

Inside the ambulance, a worker was kicked in the head and punched in the face by a patient who was believed to be under the influence of PCP.

Officers arrived and used a stun gun on the suspect before subduing him.



Hope Brodie of Connecticut, cooked up a batch of “wet” leaving traces in the pot on her kitchen stove. A relative stopped by and used the same pot to cook a batch of noodles for Hope’s five-year old daughter. The young girl immediately started acting odd claiming she had four noses.

“Getting WET”

“Jay, a 20-year-old man, is brought to the emergency department. The arresting officer says Jay may be hurt but he has never before seen anyone so violent. The patient is extraordinarily agitated and has to be placed in restraints. He does not complain of pain and seems to deny having any.

The ED physician tries to examine Jay, but Jay is yelling and threatening so much that exams are impossible to perform. The Patient is sobbing uncontrollably and babbling about of his fear of suicide.

By the time the attending arrives, the patient is talking calmly and, when asked about drug use, admits to smoking some “really great pot” earlier that day. Then the patient tries to remove all of his clothing even while in restraints and is once again cursing and threatening loudly.

Urine drug screen is finally obtained, cannabis is present, but so is PCP. Later that evening, radiography also confirms a right wrist fracture about which the patient has yet to complain. His marijuana had been laced with PCP by his drug dealer to "give it a bigger kick."

<http://emedicine.medscape.com/article/290476-overview>

WET

Bath salt usage
C

Phencyclidine is classified as a Schedule II drug, which includes cocaine and methamphetamine, having a high potential for abuse.

PCP carries penalties in most states from the minor offense of mere possession, to more major offenses such as distribution. Most states mirror the federal classification of PCP, and have it listed as a Schedule II drug.



Inhalants



- ✓ Over 2.1 million kids, ages 12–17, have used an inhalant to get high
- ✓ One in 4, 6-8th graders admits to having abused an inhalant
- ✓ Only 3% of parents think their child has abused an inhalant



SAMHSA 2010



Inhalants

Inhalants are breathable chemical vapors and gases that produce psychoactive effects, affecting body and brain.



Risk Factors

- Little perceived danger/damage
- Readily available
- Easy to conceal & use
- Inexpensive
- Social/peer pressure
- Legal consequences
- Curiosity



Inhalants



National Survey on Drug Use and Health (NSDUH)

729,000 aged 12+ used inhalants for the first time in 2008;
70 percent were under the age of 18.

Inhalants —often “gateway drug” for abuse among young children

NIDA's survey of 8th, 10th, and 12th-graders consistently reports the highest rates of current, past-year, and lifetime inhalant use among 8th-graders.



Inhalants



PRODUCTS ABUSED

Adhesives	model airplane glue, rubber cement, household glue
Aerosols	spray paint, hairspray, air freshener, deodorant, fabric protector, computer keyboard cleaner
Solvents and gases	nail polish remover, paint thinner, type correction fluid and thinner, toxic markers, pure toluene, cigar lighter fluid, gasoline, carburetor cleaner, octane booster
Cleaning agents	dry cleaning fluid, spot remover, degreaser
Food products	vegetable cooking spray, dessert topping spray (whipped cream), whippets
Gases	nitrous oxide, butane, propane, helium
Anesthetic	nitrous oxide, ether, chloroform

Nitrates

Amyl	"Poppers," "Snappers"
Butyl	"Rush," "Locker room," "Bolt," "Climax," also marketed in head shops as "video head cleaner"

Inhalants

METHODS

Huffing



Bagging



Sniffing

Spraying



Inhalants

Short term affects:

- Irregular heartbeat
- Disorientation
- Memory Loss
- Nausea
- Dizziness
- Blurred Vision



Inhalants

Long term effects:

- Permanent brain damage
- Slurred speech
- Lack of muscle coordination
- Damage to heart, liver/other organs
- Optic nerve impairment
- Hearing loss



Inhalants

In 7th grade, Riley Foster, 16, of Ind., would hide in his garage after school and incessantly inhale gasoline for hours. A one-time athlete, good student, and social teen, Riley became distant and withdrawn. Riley was addicted to huffing gasoline, but his parents did not know it.

"He didn't spend as much time with the family, he slept more, he was more argumentative and more irritated," said Riley's mother.

Riley first [experimented with inhalants](#) at age 12 when he sniffed a can of duster at a friend's house.

"It's just kind of like taking your head away from your body," he said. "The first time I ended up blacking out." The more he inhaled, the more he liked it, he said. And the abuse quickly escalated. "It is such a short high, so you can't pull yourself away from it," said Riley.

Foster said she did not know her son was using inhalants until she found Riley blacked out in the garage from an [overdose](#).

"He was stumbling, his speech was extremely slurred, he was belligerent," Foster said. "I was scared to death that he was going to die."



Inhalants

SIGNS of ABUSE

- paint regularly found on body or clothes
- red or runny eyes or nose
- chemical odor on breath
- drunk or dazed look
- loss of appetite irritability, excitability



FIRST TIME USE...CAN KILL!!



Inhalants

Precautions:

Do not panic the abuser.

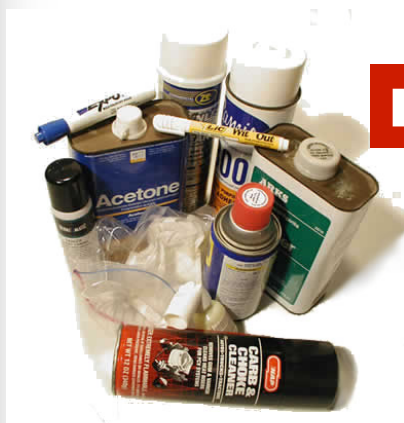
Stimulation may:

cause the heart to stop pumping

cause the abuser to become violent

If the abuser is conscious, get
ventilation into the room.

If not, CALL 911



FIRST TIME USE...CAN KILL!!



National and Local Resources

THE PARTNERSHIP
AT DRUGFREE.ORG

INHALANT.ORG

NIDA NATIONAL INSTITUTE
ON DRUG ABUSE
The Science of Drug Abuse & Addiction

National Inhalant Prevention Coalition

WEBSITE

Council on Addictions of New York State



Thank you for participating today.

Questions?
Topic ideas for future webinars?

Email: banachg@upstate.edu

