Index of
Misused Drugs
Arkansas Provider Reference Guide



DHS | Office of Substance Abuse and Mental Health

Purpose

This document is intended to expand the knowledge base of professionals and community members who support individuals who may have or be at risk for substance use disorders.

It may be used in prevention, treatment, and recovery support through trainings, consultation, and evaluation.

The Office of Substance Abuse and Mental Health (OSAMH) supports programs and projects to address behavioral health issues across all Department of Human Services programs.

It oversees Substance Use Disorder Treatment Services in Arkansas and is responsible for distributing federal grant funds for Substance Use Disorder treatment and contracting to provide community-based prevention, treatment, and recovery services in Arkansas.

ARKANSAS DEPARTMENT OF HUMAN SERVICES
Office of Substance Abuse and Mental Health

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This collection of articles addresses commonly misused drugs in Arkansas. Content is based on peer-reviewed research.

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Overdose



Prepare to Save a Life

Knowing how to respond to a drug overdose is a critical life-saving skill.

Arkansas has laws to protect those who help.

The Joshua Ashley-Pauley "Good Samaritan" Act provides legal protection from drug possession charges for anyone who, in good faith, calls 911 for medical assistance during an overdose. An additional immunity law protects you from civil liability for administering opioid overdose reversal medications.

These laws remove uncertainty and enable you to act with confidence to prevent a needless tragedy.

Stimulant Overamping

People can experience an overdose when using stimulants like methamphetamine or bath salts. Overdosing on a stimulant is referred to as "overamping."

People might present with cardiac symptoms, such as chest pains or heart palpitations, or appear to be experiencing a stroke. Some people experience psychiatric symptoms, such as agitation or delirium.

If overamping is suspected, seek emergency medical assistance as quickly as possible. Although there are not over-the-counter rescue medications for these drugs, professionals can help manage acute symptoms with prescription medications and medical treatment.

Opioid Overdose

For opioid drugs, such as carfentanil, fentanyl, and heroin, there are rescue medications that anyone can administer for acute overdoses. These are called "opioid overdose reversal medications" or "OORMs."

In Arkansas, OORMs are available to the public without a prescription at pharmacies and other retail outlets. Training is typically not required to obtain OORMs. When OORMs are widely offered to the public, they reduce overdose fatality rates. There are two FDA-approved OORMs:

Naloxone has been used for decades by first responders to reverse opioid overdose and resuscitate individuals who have experienced an overdose involving opioids. It can be given intranasally through a device that sprays the medication into the person's nose. It is also available as an injection.

Nalmefene remains in the body for significantly longer than naloxone, with a half-life of 11 hours, compared to naloxone's half-life of 1.5 to 2 hours. Research has shown that this longer half-life can lead to extended withdrawal symptoms in people who are tolerant to opioids. Injectable nalmefene was approved by the FDA in 1995. The nasal spray was approved in 2023, so it does not yet have the same extensive field experience as naloxone.

Signs of an opioid overdose can include unresponsiveness, slow or stopped breathing, pinpoint pupils, choking or gurgling sounds, blue or gray lips or fingernails, pale or clammy skin, a slow or irregular pulse, and an inability to stay awake or speak.

If an OORM is recommended for overdose of a particular drug, it is mentioned in the article. However, providers should be aware that poly-drug use is common. Sometimes people knowingly mix drugs. Other times, drug producers adulterate ("lace") drugs with opioids to lower the cost of production or to enhance a drug's effects without a person's knowledge.

If someone shows signs of a drug overdose, but you are uncertain whether opioids are involved, it is safe to administer an OORM.

Alcohol



What is alcohol?

Alcohol is the intoxicating ingredient found in beer, wine, and liquor. It is a central nervous system depressant that slows down brain activity and affects every organ in the body. Alcohol directly alters brain pathways that control mood, behavior, self-control, memory, clear thinking, and physical coordination.

Drinking alcohol in any amount increases your health risks.

Arkansas Youth

Youth in Arkansas need more education about the risks of drinking alcohol.

- People who start drinking before age 15 are four times more likely to have an alcohol use disorder later in life.
- The average age that Arkansas youth report beginning to drink on a regular basis is 14 years old.
- The majority of students in grades 6–12 do not believe that alcohol use puts people at great risk.
- The age group with the highest alcohol consumption rate is 18–25 years old.

Binge Drinking

"Binge drinking" is when males consume five or more drinks and females consume four or more drinks in about two hours.

Binge drinking is more common among youth than among adults.

Risks of Alcohol

Because alcohol impairs judgment, drinking may lead to aggression, risky behaviors, and impaired driving. Alcohol use also has negative effects on every organ in the body.

Heart Problems

Drinking a lot over a long time or too much on a single occasion can damage the heart, causing problems including cardiomyopathy (stretching and drooping of heart muscle), irregular heart beat, stroke, and high blood pressure.

Liver Damage

Heavy drinking takes a toll on the liver and can lead to a variety of problems including steatosis (fatty liver), alcoholic hepatitis, fibrosis, and cirrhosis.

Cancer

Drinking alcohol increases cancer risk. Research shows links between alcohol and these cancer types: head and neck, esophageal, liver, breast, and colorectal. **Even individuals who have no more than one drink per day have a modestly increased risk of some cancers.**

Weakened Immune System

Chronic drinkers are more susceptible to contract diseases like pneumonia and tuberculosis. Drinking a lot on a single occasion slows your body's ability to ward off infections for up to 24 hours after intoxication.

Alcohol Use During Pregnancy

There is no known safe amount of alcohol use during pregnancy or when trying to become pregnant. Drinking alcohol during pregnancy can result in fetal alcohol spectrum disorders and other developmental complications.

Assessing Your Risk

Drinking alcohol in any amount is not safe. Most people who have serious health risks from drinking are not dependent on alcohol. Counting how many "standard drinks" you have each week can help you make informed decisions. A standard drink contains 0.6 fluid ounces of pure alcohol. Alcohol by volume (ABV) varies in different beverages.

Examples of One Standard Drink

12 oz regular beer (5% ABV)

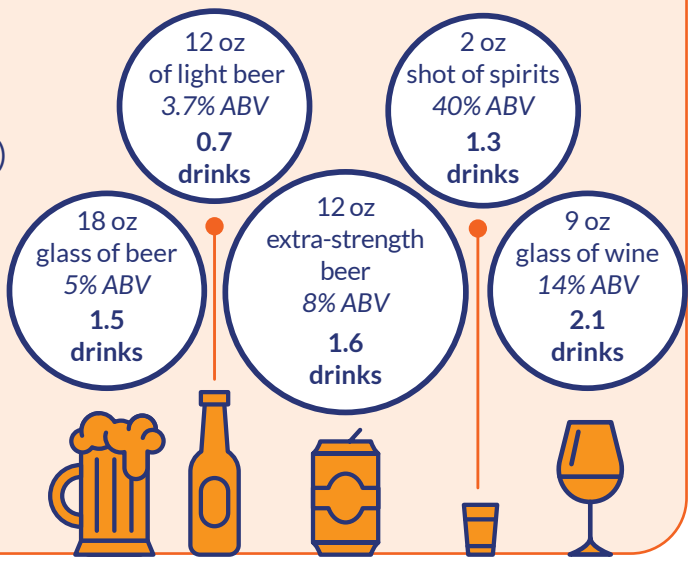
5 oz table wine (12% ABV)

1.5 oz shot of 80-proof spirits (40% ABV)

As shown at right, common serving sizes often differ from a single standard drink.

Drink calculators, risk assessments, and planning tools are available at **rethinkingdrinking.niaaa.nih.gov**

Number of Standard Drinks in Common Serving Sizes



- **Women** have high risk for health problems if they consume 3 or more standard drinks per day or 7 or more standard drinks per week.
- **Men** have high risk for health problems if they consume 4 or more standard drinks per day or 14 or more standard drinks per week.

Regardless of the number of drinks an individual consumes, their risk also increases if any of these statements apply:

- They felt a strong need to drink.
- Their drinking caused problems for them or others.
- Their drinking made it harder to do important things.
- Someone said that they should drink less.
- They found it hard to drink less.

You Need to Know

You can play an important role in educating youth and adults about protecting themselves and others. Share these key points:

To reduce the likelihood of dangerous behaviors while drinking, advise individuals to reduce the frequency and amount that they consume.

Slow Down While Drinking

- Eat food with your drink. Food slows down the speed of alcohol absorption.
- Drink a non-alcoholic drink in between each alcoholic drink.
- Limit yourself to one standard drink per hour.

Provide the following recommendations to individuals who are interested in reducing alcohol consumption:

Cut Down or Quit Alcohol Use

- Consult a health care provider about determining a safe, manageable plan to reduce drinking.
- Start by cutting back. Keep track of your drinking to stay aware and make informed choices.
- Try alcohol-free days to reassess your relationship with drinking.
- Plan ahead for challenging situations, such as social gatherings with high pressure to drink or stressful situations.
- Seek out new activities and hobbies.
- Stop completely if and when you feel ready.

Resources

- rethinkingdrinking.niaaa.nih.gov
- Arkansas Office of Substance Abuse and Mental Health
- SAMHSA findtreatment.gov | 1-800-662-HELP (4357)

Bath Salts



What are bath salts?

"Bath salts" are lab-made drugs that stimulate the central nervous system. They are intended to mimic the effects of cocaine, methamphetamine, and MDMA (ecstasy).

How are bath salts used?

Bath salts are typically ingested by snorting. However, they may also be smoked, injected, or taken orally. They can be less expensive than other stimulants, so they are sometimes used as substitutes or filler for other drugs. People may use bath salts without knowing it. Binge patterns of use are frequent, with multiple doses taken over several hours.

Distribution through smoke shops, head shops, gas stations, convenience stores, adult bookstores, and online sellers makes bath salts widely accessible.

Bath salts are often labeled as "research chemicals," "glass cleaner," or "plant food."

Packages will include the phrase "not for human consumption" to avoid legal regulations. The substance typically comes as a white or beige powder or can be compressed into gelatin capsules.



Effects of Bath Salts

Bath salts work by affecting brain neurotransmitters—such as serotonin, dopamine, and norepinephrine. This creates a stimulant effect, which can make people feel euphoric, alert, and more social. Bath salts can also increase sex drive, reduce appetite, or disrupt sleep. Extreme fight-or-flight responses can also be triggered.

Risks of Bath Salts

Bath salts are addictive. They readily affect the central nervous system. Their short duration and unpredictable potency can lead people to take repeated or higher doses, increasing the risk of severe adverse effects.

Bath salts can make your heart beat dangerously fast; raise your blood pressure; and cause teeth grinding, nausea, and overheating. This can lead to kidney failure, seizures, heart attack, or even death.

People who use bath salts can experience extreme paranoia, terrifying hallucinations, and violent or suicidal behavior. Use, especially when repeated, can lead to brain damage and severe long-term mental health problems.

Treatment for overdose can involve hospitalization in the intensive care unit, sedation, and restraints to prevent harm to self or others.

Overdose Response

Call 911 if you notice signs of overdose. Signs may include violent or suicidal behavior, seizures, difficulty breathing, overheating, and sweating.

OORMs do not reverse the effects of bath salts. Professional medical help is required for bath salts overdose rescue or to subdue extreme behaviors associated with bath salts intoxication.

Resources

- Arkansas Office of Substance Abuse and Mental Health
- SAMHSA findtreatment.gov | 1-800-662-HELP (4357)

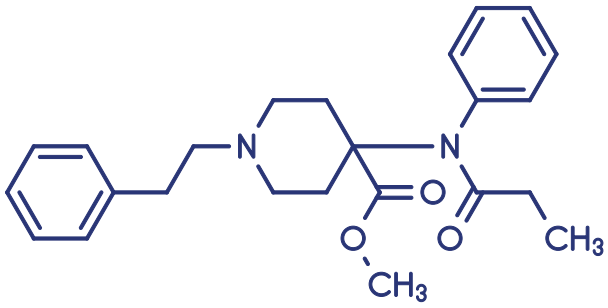
Carfentanil



What is carfentanil?

Carfentanil is an extremely potent synthetic opioid that belongs to the fentanyl family of drugs. It is approximately 10,000 times more potent than morphine and 100 times more potent than fentanyl.

Originally designed in 1974, carfentanil was previously used exclusively for veterinary medicine with large animals. It is not approved for use in humans.



How is carfentanil used?

Carfentanil is typically used through injection, snorting, or inhalation. It can even be absorbed through skin contact. Because it dissolves easily in fats, it can quickly enter the body's fatty tissues, which increases the risk of overdose.



Injection



Snorting
or inhalation



Skin contact

Carfentanil is illicitly distributed in many forms: powder, blotter paper, tablets, patches, and spray. It is commonly mixed with heroin or other drugs.

Effects of Carfentanil

Carfentanil can cause rapid and profound respiratory depression, which can lead to apnea, respiratory arrest, or death. Other reported effects include:

- Euphoria
- Relaxation
- Reduced perception of pain
- Pinpoint pupils
- Drowsiness
- Sedation
- Slowed heart rate
- Low blood pressure
- Low body temperature
- Loss of consciousness

The more you use carfentanil, the more likely you will experience irreversible damage to the brain and major organ systems.

Risks of Carfentanil

Several factors make this drug especially hazardous:

Extreme potency. It only takes 13 milligrams of carfentanil to fully sedate a large male elephant. The lethal dose for a human is less than 1 milligram.

.02 milligrams = lethal dose of carfentanil



Difficulty in recognition. Carfentanil can resemble other drugs, like heroin or cocaine, but requires different treatment for overdose. Hospital drug overdose tests may not detect the presence of carfentanil.

Polydrug complications. Carfentanil is frequently combined with other drugs, which makes it more difficult to identify and treat overdoses.

Overdose Response

You can play an important role in educating youth and adults about protecting themselves and others. Share these key points:

Discuss the risks of overdose, especially when drugs are combined.

Carry an OORM kit.

Watch for signs of overdose. Signs can include unresponsiveness, slow or stopped breathing, pinpoint pupils, choking or gurgling sounds, blue or gray lips or fingernails, pale or clammy skin, a slow or irregular pulse, and an inability to stay awake or speak.

Because of carfentanil's high potency and rapid onset of life-threatening symptoms, treatment can be more intensive and challenging than for other opioid overdoses.

Take these immediate actions if you suspect a carfentanil overdose:



Call 911 before taking any other steps.



Administer an OORM.

Because of carfentanil's extreme potency, it can require much higher and repeated doses of the OORM compared to other types of opioid overdoses.

Repeat OORM administration every 2-3 minutes until the person is breathing on their own for at least 15 minutes or until first responders arrive.



Avoid handling unknown powders.

Though accidental brief skin contact is unlikely to cause opioid toxicity, inhalation, ingestion, mucous membrane exposure, or prolonged contact with potent opioids can be dangerous.

Resources

- Arkansas Office of Substance Abuse and Mental Health
- SAMHSA findtreatment.gov | 1-800-662-HELP (4357)

CBD *and CBD-derived psychoactive products*



What is CBD?

Cannabidiol (CBD) is a naturally occurring, non-psychoactive chemical found in the cannabis plant. However, it does not contain THC, the psychoactive ingredient found in marijuana that creates the feeling of being "high."

CBD is sold as an oil, extract, or vaporized liquid. It can be infused into food, drinks, and beauty products.

Currently, the only CBD product approved by the FDA is Epidiolex®, which is a prescription oil to treat specific types of epilepsy. There is no federal regulation of other CBD products.

CBD Derivatives

Derivatives are the substances that are chemically modified from naturally occurring CBD. Various types of derivatives include:

- CBN
- Delta-8 and Delta-10 THC
- Hexahydrocannabinol (HHC)
- THC-O
- THCP
- THCV

How are CBD products used?

CBD is widely marketed as a treatment for many health conditions. However, many of those claims are not backed by research.

Products may contain mixtures of different derivatives to achieve desired effects (for example, combining delta-8, delta-10, and HHC). CBD and its derivatives come in various forms such as:

- Edibles, such as gummies and chocolate
- Capsules
- Tinctures
- Vape liquids that are inhaled as aerosols using electronic nicotine delivery systems

Legal Status in Arkansas

In 2025, Arkansas Act 629 (HB 533) banned possession of psychoactive CBD products that were previously sold in stores.

To purchase CBD-derived products with more than 1 mg of THC per container, you must have a medical cannabis card and purchase products through a state-regulated dispensary.

Due to safety concerns, all other use of psychoactive CBD is banned.

Effects of CBD Products

CBD itself is considered non-intoxicating, but it can cause drowsiness and increase anxiety. CBD psychoactive derivatives can cause "intoxication" with potential undesired psychological, behavioral, and physical effects:

Psychological Effects

- Euphoria
- Hallucinations
- Anxiety
- Paranoia
- Cognitive impairment

Physical Effects

- Blurred vision and dry mouth
- Increased heart rate and blood pressure
- Gastrointestinal distress
- Extreme sleepiness

Behavioral Effects

- Agitation
- Confusion
- Impaired coordination
- Risk-taking behavior
- Withdrawing from social interactions

Risks of CBD Products



CBD products, even those legally sold in stores, can be inaccurately labeled. In one study, out of 84 CBD extracts purchased online, 69% had a different concentration of CBD than labeled, and 21% contained unlabeled delta-9 THC. That means you can take a much higher dose than you thought or unintentionally consume psychoactive substances.

CBD products can have adverse interactions with prescription medication, recreational drugs, or alcohol. These interactions can make your medications less effective and can make you sick enough to require hospitalization.

CBD products can cause liver damage.

Vaping CBD products can cause permanent lung damage and is associated with increased risk for cancer. (See "Vaping" for more information.)



Maternal Risk

Emerging research indicates that CBD and CBD-derived products may harm development in fetuses and nursing babies. For example, a study found that males exposed to CBD in utero were more likely to be born with compromised reproductive systems than other males.

You Need to Know

You can play an important role in educating youth and adults about protecting themselves and others. Share these key points:

- CBD products are not regulated, and they can contain unlabeled ingredients. Products are known to have caused liver damage.
- Mixing CBD products with prescribed medications, recreational drugs, or alcohol can harm your health. If you are considering use of CBD products, consult your healthcare provider beforehand.
- To prevent harm to infants, do not use CBD products during pregnancy or while nursing.
- Keep all CBD products out of sight and reach of children and pets. Call Poison Control if a child consumes a CBD product.
- Seek urgent medical care if you experience hallucinations, vomiting, tremor, anxiety, dizziness, confusion, or loss of consciousness after consuming a CBD product.

Resources

- **Poison Control 1-800-222-1222**
- **Arkansas Office of Substance Abuse and Mental Health**
- **SAMHSA findtreatment.gov | 1-800-662-HELP (4357)**

Cocaine / Crack



What is cocaine?

Cocaine is a powerfully addictive stimulant drug made from the leaves of the coca plant. It is classified as a Schedule II drug, which means it has some legal medical applications but also a high potential for misuse and addiction.

Cocaine is processed in two chemical forms:
Powder cocaine is a hydrochloride salt that can be dissolved in water. When processed with ammonia or baking soda, it forms crystals that are hard and do not dissolve in water. This is the form of cocaine called crack because of the sound it makes when heated.

How is cocaine used?

Powder
Cocaine powder is inhaled through the nose or rubbed on the gums. When dissolved in water, the powder can be injected.

Crack
Crack can be smoked by itself, or it can be combined with other drugs like tobacco or marijuana.

Poly-Substance Use
Cocaine and crack are frequently combined with heroin or alcohol. This creates a third, more toxic substance in the liver, cocaethylene. Also, fentanyl and xylazine contamination in cocaine supplies is increasingly common. **Mixing cocaine with other drugs greatly increases the risk of fatal overdose.**

Young Adults

In Arkansas, cocaine use is more prevalent among women than among men.

The age group that uses cocaine the most is young adults, ages 18–25 years old.

Many adults are first exposed to cocaine on college campuses.

Effects of Cocaine

The euphoric effects of cocaine come and go quickly. If you smoke or inject it, you can feel "high" within seconds, but the effects wear off within 5–10 minutes. Cocaine that is snorted may take effect within 10–15 minutes, and the high lasts slightly longer, around 15–30 minutes.

Short-term effects can include happiness, alertness, hypersensitivity to your surroundings, irritability, or paranoia. You can also have nausea or decreased appetite.

Risks of Cocaine



Binging and Substance Use Disorders

Binge cycles are common with cocaine use. Because the euphoric effects of cocaine are intense but fade fast, people take the drug repeatedly at increasingly higher doses to maintain the initial high. When the high wears off, people can "crash" with feelings of intense fatigue and depression and an overwhelming craving to use the drug again. This cycle makes people who use cocaine highly susceptible to substance use disorders.

Heart Attack and Stroke

Cocaine use is a frequent cause of heart attacks and strokes even in young, healthy people. It causes the heart to beat faster while constricting blood vessels. This combination leads to high blood pressure and can trigger sudden cardiac arrest.

Pregnancy Complications

People who use cocaine during pregnancy are more likely to experience migraines, seizures, miscarriage, and complications in labor. Cocaine use is associated with placental abruption, when the placenta detaches from the uterus. This can trigger life-threatening bleeding.

Babies are more likely to be born preterm, to have low birth weight and small head circumference, and to show signs of distress.

Additional Risks of Cocaine

- Severe paranoia and auditory hallucinations
- Loss of smell and frequent nosebleeds (if snorting)
- Movement disorders, such as Parkinson's disease
- HIV and hepatitis infections due to sharing or using non-sterile equipment to snort or inject

Overdose Response

You can play an important role in educating youth and adults about protecting themselves and others. Share these key points:

Mixing cocaine with alcohol or other drugs increases risk of overdose.

Carry an OORM kit.

OORMs, such as naloxone, do not reverse cocaine overdoses, but if you are unsure whether an opioid drug, such as fentanyl, was mixed with the cocaine, OORMs are safe to administer.



Call 911 immediately if you see signs of overdose:

- Unconsciousness
- Difficulty breathing, speaking, or seeing
- Loss of feeling or weakness on one side of the body
- Chest or head pains
- High body temperature
- Nausea or vomiting
- Teeth grinding
- Panic, agitation, or paranoia
- Seizures

If suspect involvement of an opioid drug, administer an OORM.

Avoid handling unknown powders.

Cocaine can be mixed with opioid drugs. Though accidental brief skin contact is unlikely to cause opioid toxicity, inhalation, ingestion, mucous membrane exposure, or prolonged contact with potent opioids can be dangerous.

Contact a health care provider for support.

Health care providers can monitor heart health and discuss potential treatment options. While there are no FDA-approved medications to treat cocaine use disorder, there are several types of effective behavioral therapies.

Resources

- **Arkansas Office of Substance Abuse and Mental Health**
- **SAMHSA findtreatment.gov | 1-800-662-HELP (4357)**

Fentanyl



What is fentanyl?

Fentanyl is a powerful synthetic opioid used in medical settings for pain management and anesthesia. It is about 50 times stronger than heroin and 100 times stronger than morphine.

Illicitly manufactured fentanyl is the country's leading cause of substance use disorder and overdose.

How is fentanyl used?

Fentanyl is produced either in powder or liquid form. There are many different types of delivery: pills, spiked on blotter paper, patches, nasal spray, eyedrops, and injectable liquids.



Injection



Snorting
or inhaling vapor



Skin contact



Swallowing

Hidden Danger

Fentanyl is frequently disguised as other prescription medications, such as oxycodone or Adderall®. The counterfeit pills are commonly sold online.

Because of its low cost and high potency, fentanyl is frequently mixed into other illicit drugs: xylazine, MDMA, cocaine, heroin, and methamphetamine, among others.

Fentanyl cannot be distinguished from other drugs by taste, smell, or appearance. Many people who experience a fentanyl overdose are unaware that they consumed it.

Effects of Fentanyl

Fentanyl binds to the body's opioid receptors, primarily in brain regions that control pain and emotions. The effects of fentanyl kick in faster than with morphine or heroin.

- Relaxation
- Pain relief
- Pinpoint pupils
- Sedation
- Slowed heart rate
- Low blood pressure
- Low body temperature
- Loss of consciousness

Risks of Fentanyl



Extended use of fentanyl is associated with health risks including:

- Chronic digestion problems
- Lowered immunity to infection
- Mental disorders and suicidal ideation or behaviors
- Increased drug tolerance and decreased pain tolerance

Pregnancy and Birth Complications

Fentanyl use during pregnancy can cause preterm labor, stillbirth, and birth defects. Babies exposed to fentanyl frequently exhibit signs of withdrawal about three days after birth. Symptoms can include seizures, excessive crying, poor feeding, and sleep problems.

Overdose and Death

Fentanyl impairs breathing and prevents the body from getting enough oxygen. This can lead to brain injury and cardiac arrest. Just 2 milligrams of fentanyl can be fatal.

You Need to Know

You can play an important role in educating youth and adults about protecting themselves and others. Share these key points:

Injecting is dangerous.

People who inject fentanyl are at higher risk for overdose and skin and soft tissue infections than people who take it in other ways.



Treatment is available for pregnant and breastfeeding parents.

If you are pregnant, talk to your health provider. There are medications to safely treat substance use disorders while pregnant or breastfeeding.

Be aware of false labeling or contamination risks.

Medications that are not directly obtained from a licensed pharmacy can be contaminated with fentanyl or other dangerous drugs. This increases the risk of overdose.

Overdose Response

Carry an OORM and know the signs of overdose.



If you see any of these signs of overdose, call 911 first.

- *Unconsciousness*
- *Gurgling or snoring*
- *Slow or irregular heartbeat or breathing*
- *Blue lips or fingernails*
- *Pinpoint pupils*
- *Cold or clammy skin*

Then administer an OORM.

Because fentanyl is so strong, additional doses may be required after 2–3 minutes.



Avoid handling unknown powders.

Though accidental brief skin contact is unlikely to cause opioid toxicity, inhalation, ingestion, mucous membrane exposure, or prolonged contact with potent opioids can be dangerous.

Resources

- **Arkansas Office of Substance Abuse and Mental Health**
- **SAMHSA findtreatment.gov | 1-800-662-HELP (4357)**

GHB *(Gamma-hydroxybutyrate)*



What is GHB?

Gamma-hydroxybutyrate (GHB) is a fatty acid that is naturally present within the human nervous system and helps regulate sleep and brain function. It typically takes the form of a clear, odorless liquid, which is sold in small bottles or droppers. In rare cases, GHB comes as a white powdery substance or in a capsule.

It was first used in the 1960s as an anesthetic, but was later sold as a supplement for weight loss and body-building in the 1990s. Over time, its reputation shifted when it was introduced into the nightclub scene. GHB can cause sedation and amnesia. Because it has been used to facilitate assault, it is sometimes called the "date rape drug."

How is GHB used?

Individuals may use GHB to improve relaxation and sleep, to enhance sexual stimulation, to reduce the effects of stimulant drugs after a period of heavy use, or to increase euphoric "pro-social" effects in group settings or parties.

The FDA-approved prescription medication Xyrem (sodium oxybate, a form of GHB) is used for treatment of narcolepsy. Historically, GHB has also been used in some cases to treat severe alcohol use disorder and withdrawal symptoms, although this practice is less common today.

Effects of GHB

GHB takes effect within 5–30 minutes of ingestion. At low doses, GHB use can result in mild stimulation, decreased anxiety, euphoria, heightened libido, and increased alertness.

In high doses, it slows down brain activity and can lead to sedation, euphoria, loss of inhibition, improved sociability, and drowsiness. High doses of GHB also cause dangerous physical effects such as unconsciousness, seizures, slowed heart rate and breathing, blurred vision, and vomiting.

In the most severe cases, high doses may cause coma or death, often due to respiratory failure. The risk of these serious effects increases if taken with other depressants or alcohol.

Risks of GHB



Social Vulnerability

While GHB can make you feel more lively in a social setting, it can also make you more vulnerable to risky behaviors, such as unprotected sex or driving while impaired. GHB use can also make you more vulnerable to unwanted manipulation or criminal assault, especially if someone else has controlled the dose.

Substance Use Disorders

GHB is highly addictive. Repeated use can cause problems with sleep, mental health, sexual health, and work performance. Withdrawal symptoms can include tremors, extreme agitation, and seizures. GHB also has a high risk of relapse.

Overdose

Mixing GHB with alcohol, opioids, or benzodiazepines increases the risk of respiratory depression. Because liquid GHB disperses quickly in the body, an overdose can come on in minutes, leaving little time to react.

You Need to Know

You can play an important role in educating youth and adults about protecting themselves and others. Share these key points:

Protect yourself from unexpected exposure.

In social situations, do not leave your drink unattended. Avoid accepting drinks from shared or open containers, such as punch bowls.

Do not mix drugs.

GHB has a narrow safety margin between a dose that produces relaxation and one that causes life-threatening effects. Using even a small amount can cause overdose, especially when combined with other substances.

Overdose Response

Call 911 immediately if you see any of these signs of overdose:

- *Slow or stopped breathing or heart rate*
- *Unresponsiveness*
- *Seizures*

OORMs, such as naloxone, are not effective at reversing the effects of a GHB overdose.

Talk to your health care provider.

If you have become dependent on GHB, or if GHB use is affecting your mental or physical health, talk to your health care provider about safe options to quit. If you have prolonged or heavy use of GHB, you may need medical support to manage withdrawal symptoms.

Resources

- Arkansas Office of Substance Abuse and Mental Health
- SAMHSA findtreatment.gov | 1-800-662-HELP (4357)

Hallucinogens



What are hallucinogens?

Hallucinogens are psychoactive substances that alter perception, thought, and mood. They can produce intense visions or make you feel detached from your body or environment.

Hallucinogens come from natural sources, such as psilocybin-containing mushrooms and mescaline-containing peyote cactus. Dimethyltryptamine, also known as DMT, is a component of ayahuasca, which is made from a vine. LSD, also called "acid," must be produced in a lab.

How are hallucinogens used?

People have used plant-based hallucinogens for centuries in religious and healing rituals. However, modern medical and legal systems continue to struggle with the risks and potential benefits of these substances.

Research is underway to study potential therapeutic applications for hallucinogens for conditions such as anxiety, depression, and substance use disorders.

People who use hallucinogens usually take them orally. Mushrooms can be eaten fresh, dried, or brewed into tea, and synthetic psilocybin can be made in the form of a powder. Peyote "buttons" can be chewed, brewed, or ground into a powder that can be swallowed or smoked. LSD is frequently absorbed from blotter paper, sugar cubes, or tablets.

Drugs Classified as Hallucinogens

- **Psilocybin (mushrooms)**
- **Mescaline (peyote)**
- **Dimethyltryptamine (DMT)**
- **LSD (acid)**
- **PCP**
- **Ketamine**

Legal Status of Hallucinogens

In the U.S., psilocybin, mescaline, and LSD are classified as Schedule I controlled substances. This means that they have a high potential for misuse and do not have FDA approval for use in medical settings. There are limited exceptions for members of the Native American Church to use peyote in religious ceremonies. Clinical trials for use of these substances in medical settings are tightly regulated.

Ketamine has FDA approval for surgical pain management, but not for other uses. Using ketamine off-label for depression or substance use disorders can be hazardous to physical and mental health.

Effects of Hallucinogens

Hallucinogens activate serotonin receptors in the brain. This action disrupts normal neural communication and promotes unusual connectivity across brain regions, which can result in altered perception, mood shifts, and mystical-seeming experiences.

Physical Effects

- Nausea
- Vomiting
- Muscle weakness
- Lack of coordination
- Heavy sweating
- Extreme thirst
- Dilated pupils
- Increased heart rate
- Increased blood pressure
- Headaches

Psychological Effects

- Hallucinations
- Altered perception of time and space
- Altered body image
- Euphoria
- Anxiety
- Depression
- Paranoia
- Panic

Risks of Hallucinogens



Using hallucinogens in unsupervised or unsafe environments increases the risk of panic reactions, accidents, and trauma. Hallucinogens are not classified as physically addictive in the same way that alcohol or opioids are. However, you can still become dependent on them. They can cause psychological distress and increase dangerous behavior, especially with repeated use.

Warning signs of hallucinogen dependence include:

- Spending a lot of time acquiring, using, or recovering from hallucinogen use
- Using more than intended or not being able to cut back
- Continuing to use despite physical or mental health concerns
- Self-isolation

Hallucinogen use is most prevalent among young adults. Risk factors for dependence or adverse effects include a personal or family history of psychiatric disorders and combining hallucinogens with other substances.

Individuals have required medical treatment after misidentifying mushrooms or from taking hallucinogens that were contaminated with other more potent drugs, such as fentanyl.

People who use LSD can suffer acute anxiety and depression afterwards. They may also develop Hallucinogen Persisting Perception Disorder, which involves having flashbacks of some aspects of the drug experience, days or months after taking it.

You Need to Know

You can play an important role in educating youth and adults about protecting themselves and others. Share these key points:

Mushrooms can be misidentified, and hallucinogens can be laced with other drugs, such as fentanyl. Even one use can be fatal.

Risks of using hallucinogens include flashbacks, persistent perception disorders, dangerous behaviors, depression, and anxiety.

If individuals want to learn about therapeutic use, direct them to legitimate clinical trials rather than to unregulated sources.

Resources

- **Arkansas Office of Substance Abuse and Mental Health**
- **SAMHSA findtreatment.gov | 1-800-662-HELP (4357)**

Heroin



What is heroin?

Heroin is an illegal, highly addictive opioid drug processed from morphine, a natural substance extracted from the seed pod of certain poppy plants.

While some opioids are available by prescription, others are manufactured solely for illegal distribution, such as heroin and illicitly manufactured fentanyl (IMF).

These substances are central nervous system depressants that interact with opioid receptors in the brain to reduce pain and produce euphoria.

How is heroin used?

Heroin is consumed in several ways:

Injection
Dissolved and injected into a vein, muscle, or under the skin

Smoking
Inhaled through a pipe or by heating the substance on foil

Snorting or sniffing
Inhaling powder through the nose

Poly-Substance Use

Heroin is frequently mixed with other drugs, such as cocaine, which is often called "speedballing," and alcohol. It is also common for dealers to mix heroin with other potent drugs, such as fentanyl or U-47700, which makes it difficult to know what or how much you are taking. Poly-substance use dramatically increases risks of overdose.

Effects of Heroin

Heroin is highly addictive because it hijacks the brain's reward system, triggering a flood of dopamine that is up to 10 times higher than natural levels. This massive surge reinforces the behavior, teaching the brain to prioritize the drug above all other needs. Over time, the brain becomes less sensitive to dopamine, meaning the person must take larger amounts just to feel "normal" or to avoid withdrawal.

When you take heroin you can feel:

- A surge of pleasure
- Pain relief
- Dry mouth
- Heaviness in extremities
- Impaired mental function
- Drowsiness
- Itchy or cold skin
- Nausea or vomiting

The most dangerous effect is respiratory depression, which can quickly become life-threatening.

Risks of Heroin



Substance Use Disorder and Withdrawal

Tolerance develops quickly, meaning users need more of the drug to feel the same effects. This places the user at greater risk for developing a substance use disorder. Withdrawal symptoms can be intense and begin within hours of the last dose. Symptoms can include restlessness, muscle and bone pain, vomiting, diarrhea, involuntary leg movements, and cold flashes.

Compromised Brain and Hormone Function

Repeated heroin use can change the physical structure of the brain, causing mental health disorders, such as depression and antisocial personality disorder. Heroin also disrupts hormone production, which affects sexual function and fertility.

Infectious Disease

Injecting heroin increases the risk of contracting or transmitting HIV, hepatitis B, and hepatitis C.

Organ Damage

Chronic use can lead to collapsed veins, infection of the heart lining, and abscesses at injection sites.



Maternal and Infant Health Risks

In pregnant people, heroin passes easily through the placenta to the fetus. This increases risks of poor fetal growth, preterm birth, birth defects, and stillbirth.

Newborns may experience withdrawal symptoms including tremors, irritability, seizures, and poor feeding.



Overdose

Heroin disrupts brain stem activity, which regulates breathing and heart rate. Your brain stem can "forget" to tell your body to breathe. Lack of oxygen can cause permanent brain damage or death.

Because heroin production is not regulated, it is difficult to know how strong each dose is and whether it is contaminated with other drugs. This increases the likelihood of overdose.

Overdose Response

You can play an important role in educating youth and adults about protecting themselves and others. Share these key points:

Carry an OORM kit and watch for these signs of overdose:

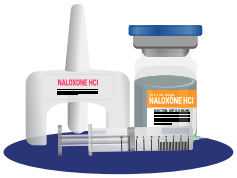
- Unconsciousness
- Irregular breathing or heartbeat
- Snoring or gurgling
- Cold or clammy skin
- Pinpoint pupils
- Blue lips or fingernails

If you suspect an overdose from heroin or other opioid drugs:

911

First, call 911.

Second, administer an OORM.



Avoid handling unknown powders.

Though accidental brief skin contact is unlikely to cause opioid toxicity, inhalation, ingestion, mucous membrane exposure, or prolonged contact with potent opioids can be dangerous.

Talk to a health care provider.

There are medications and treatments to ease withdrawal symptoms and treat opioid use disorders.

Resources

- Arkansas Office of Substance Abuse and Mental Health
- **SAMHSA findtreatment.gov | 1-800-662-HELP (4357)**

Inhalants



What are inhalants?

Inhalants are a broad group of substances that produce chemical vapors capable of causing mind-altering effects when inhaled.

Inhalants are found in everyday products such as spray paints, felt-tip markers, cleaning fluids, and adhesives. Most inhalants are extremely toxic, but because these items are legal and easy to obtain, inhalants are among the first substances that youth tend to try.

Inhalant use, also known as “glue sniffing,” first became popular in the 1960s. In recent years, use has declined overall, but young people still are at risk.

Youth Inhalant Use

Inhalants are one of the few substances that are misused more often by younger children than by older teens. That is because it is legal to buy inhalant products, and children can often access them in their own homes or schools.

In 2023, fewer than 1% of people ages 12 and older reported inhalant use in the past year, but about 4% of 8th graders reported recent use.

About 1 in 5 children report trying inhalants by 8th grade.

How are inhalants used?

When a person breathes in an inhalant, the vapors travel quickly through the lungs, into the bloodstream, and on to the brain and other organs.

Inhalants fall into four main categories:

Volatile solvents: Paint thinners, gasoline, glues, markers, and correction fluid

Aerosols: Spray paints, deodorants, air fresheners, and cooking sprays

Gases: Medical anesthetics such as nitrous oxide (laughing gas) and commercial products like butane, propane, and refrigerants

Nitrites: Often sold illegally as "poppers" or "room deodorizers." Unlike other inhalants, nitrites primarily dilate blood vessels and are sometimes used to enhance sexual performance.

Individuals can use inhalants in several ways:



Sniffing or snorting
Directly from containers



Bagging
Inhaling from vapors in a bag



Huffing
Breathing vapors from a soaked rag



Ballooning
Inhaling nitrous oxide from balloons

The high from inhalants lasts only a few minutes, so individuals may inhale repeatedly for several hours to extend their high.

Legal Status

Most inhalants are legal household or commercial products, so they are not controlled under federal law. Some states do restrict sales of products like spray paints or nitrous oxide chargers to minors. Nitrites ("poppers") are illegal to sell for human consumption in the U.S., although they are often marketed under misleading labels.

Effects of Inhalants

Most inhalants act as central nervous system depressants and produce effects similar to alcohol or sedatives.

Inhalant use can produce these sensations or symptoms:

- Euphoria, impaired judgment, and dizziness
- Slurred speech and impaired coordination
- Visual distortions or hallucinations
- Drowsiness, headaches, or agitation
- Nausea and vomiting

Risks of Inhalants



Inhalants can cause fatal heart failure within minutes and can also cause a person to stop breathing, also known as "sudden sniffing death."

Repeated use over time can lead to long-term harm:

- Permanent brain and nerve damage, including problems with memory, judgment, movement, and vision
- Damage to the heart, lungs, liver, and kidneys
- Mental health disorders, such as depression, anxiety, or personality changes
- Birth defects and developmental delays when used during pregnancy

You Need to Know

You can play an important role in educating youth and adults about protecting themselves and others. Share these key points:

- Inhalants are not "safe" just because they are legal household products. Even one-time use can be fatal, and using inhalants regularly can cause lasting brain, heart, liver, and kidney damage.

- Parents and educators can help protect younger children by making sure they cannot access inhalant products at home or school without adult supervision.



Call 911 or Poison Control if you notice signs of inhalant intoxication or overdose, which may include slurred speech, nausea or vomiting, hallucinations or agitation, or slow heartbeat or breathing.

Resources

- **Poison Control 1-800-222-1222**
- **Arkansas Office of Substance Abuse and Mental Health**
- **SAMHSA findtreatment.gov | 1-800-662-HELP (4357)**

Kratom



What is kratom?

Kratom (*Mitragyna speciosa*) is a substance derived from the leaves of a tropical tree that grows in Southeast Asia. For centuries, people in that region chewed the leaves or brewed them into tea to fight fatigue, to manage pain, and sometimes to participate in cultural or religious practices.

Compounds in kratom interact with opioid receptors in the brain, the same system targeted by morphine and other opioids.

Kratom use has grown rapidly in the past two decades. Some people use it to self-manage pain, anxiety, or opioid withdrawal. Kratom can be addictive and can have harmful effects, including potentially fatal interactions with prescription medications.

How is kratom used?

Kratom is sold in several forms: powdered leaf, capsules, teas, extracts, and resins. Individuals typically take kratom by eating or drinking, but they may also smoke or chew the leaves.

Legal Status

There are no FDA-approved uses for kratom. It is sold as a "natural supplement." As of 2025, it is not federally classified as a controlled substance, although the DEA has listed it as a chemical of concern, and it is illegal in Arkansas and several other states.

Effects of Kratom

Individuals who use kratom can feel the effects within 5-10 minutes of taking it. The effects can last 2-4 hours and vary by dose and individual user. At lower doses, kratom acts more like a stimulant. At higher doses, its effects resemble opioids, including sedation and pain relief.

Reported adverse effects include:

Physical

- Nausea and vomiting
- Itching
- Sweating
- Dry mouth
- Constipation
- Fast heartbeat
- Loss of appetite
- Tremors or seizures
- Increased urination

Psychological

- Confusion
- Hallucinations
- Delusional thinking

Kratom is physically and psychologically addictive.

Individuals who use it regularly may experience these withdrawal symptoms if they stop using it:

- Irritability
- Anxious or depressed mood
- Muscle aches
- Insomnia
- Runny nose
- Intense cravings

Risks of Kratom



Kratom is most often used by adults seeking alternatives to prescription pain medication or by individuals trying to self-manage opioid withdrawal.

Populations at higher risk include:

- People with chronic pain
- Individuals with a history of opioid or stimulant use
- Young adults experimenting with “natural” or herbal highs
- People with limited access to formal treatment services

Kratom is associated with dependence, toxicity, and overdose.

Risks increase when the person uses kratom along with other drugs. Kratom can have potentially fatal interactions with medications such as zopiclone, citalopram, modafinil, and benzodiazepines.

There is little research about long-term effects of use, but kratom use has been associated with liver damage. Infants born to mothers who used kratom during pregnancy have had withdrawal symptoms.

The FDA has identified cases of kratom being contaminated with heavy metals and salmonella, which can cause illness or even life-threatening situations.

You Need to Know

Individuals may consider kratom to be a harmless supplement, over-the-counter remedy, or "herbal" product. You can play an important role in educating youth and adults about protecting themselves and others. Share these key points:

- Kratom is not a safe alternative to opioids.
- Using higher doses or mixing kratom with other substances, including some prescription medications, greatly increases the risk of harmful health effects, including overdose.
- Even though kratom is marketed as "natural," it can cause serious side effects including liver injury and psychosis.
- There are no FDA-approved medications to help individuals stop using kratom, but counseling and recovery supports are effective.
- Parents who are pregnant or nursing should not use kratom because the baby can be born dependent on the drug.

Overdose Response

Call 911!
Get emergency help if you notice signs of kratom overdose, such as unconsciousness, fast heart rate, seizures, or agitation.

Kratom affects receptors in the brain differently than opioids, such as fentanyl, so OORMs are not likely to be as effective if administered for kratom alone. However, if you know or suspect poly-drug use, you can administer an OORM.

Resources

- **Arkansas Office of Substance Abuse and Mental Health**
- **SAMHSA findtreatment.gov | 1-800-662-HELP (4357)**

Marijuana



What is marijuana?

Marijuana (cannabis) is one of the most widely used psychoactive substances. It is derived from the *Cannabis sativa* plant. In the U.S., cannabis was criminalized in the early 20th century but has since been legalized for medical or recreational use in many states.

Legalization, commercialization, and the introduction of high-potency products have contributed to increased availability and changing social norms.

Marijuana contains over 100 compounds, groups of chemicals called cannabinoids. The two most studied are delta-9-tetra-hydrocannabinol (THC) and cannabidiol (CBD). The two compounds are associated with different risks. This article addresses THC. Read the article *CBD* for additional information.

How is marijuana used?

Marijuana can be smoked; vaped; ingested as edibles, in capsules, and in beverages; or applied topically. Inhaled forms act within minutes and peak quickly, while ingest-ed products have delayed but prolonged effects because they are metabolized in the liver.

Young Adults

About 62% of students in grades 6–12 and 85% of adults do not view regular marijuana use as a great risk.

Almost 18% of students have used marijuana by 12th grade. Female students now have higher rates of use than males.

30% of adults ages 18–25 report using marijuana in the past year.

Legal Status

In Arkansas, marijuana is legalized for medical use, but not for recreation. To legally possess marijuana, you must have a medical marijuana card and purchase it from a state-regulated dispensary. People who use medical marijuana may still face workplace or legal consequences if their use poses a safety risk or if they use while employed by the federal government.

Effects of Marijuana

People use marijuana because THC binds to receptors in the brain and produces psychoactive effects such as euphoria, relaxation, and altered perception. Some individuals use it to treat chronic pain. However, effects of marijuana vary widely from person to person and in the strength and type of cannabis. It is important to discuss use and potential risks with a health care provider.

People experiencing cannabis intoxication can have red eyes, dry mouth, slowed reaction times, impaired judgment, increased appetite, and mood changes. Severe intoxication can cause paranoia or psychosis, particularly in people with a personal or family history of mental illness.

Acute Effects of Marijuana Use

Short-term

- Anxiety, depression, and psychotic symptoms
- Cardiovascular and gastrointestinal symptoms
- Impaired short-term memory and coordination
- Distorted perception of time

Long-term

- Lower dopamine levels
- Negative cognitive effects, including difficulty with attention and short-term memory
- Recurrent vomiting (cannabis hyperemesis syndrome)
- Harm to the respiratory system for those who smoke or vape

Because THC concentration varies widely among products, users can underestimate the potency of what they consume. This is especially true with edibles, which can lead to accidental intoxication or overdose symptoms such as anxiety, dizziness, or rapid heart rate.

Risks of Marijuana



Fetal Development

Marijuana use by pregnant people is associated with higher rates of preterm birth, low birthweight, infant hospitalization, and death in the first year.

Brain Development

When used in adolescence up to the age of about 25, marijuana can harm development of parts of the brain that control memory and processing speed. This can make academic achievement more difficult. Initiating use at a young age is associated with development of substance use disorders and psychosis in later years. Children exposed to second-hand marijuana smoke or vapor have higher developmental risks.

Cannabis Use Disorder

Although many people who use cannabis mistakenly believe it is not addictive, regular and heavy users are at a higher risk of developing cannabis use disorder (CUD), meaning they cannot stop using cannabis even when it is causing physical or psychological harm. People who have CUD have higher risks of poor mental health, psychoses, and bronchitis.

Withdrawal symptoms typically begin within 24–48 hours of stopping regular use and can include irritability, restlessness, insomnia, decreased appetite, and mood disturbances. These symptoms are not life-threatening, but they can increase the risk of relapse.

Diseases

Additionally, marijuana use increases the likelihood of developing cancer, heart disease, mental health conditions, and gastrointestinal disease.

Some populations are at higher risk for CUD or related harms:

Adolescents and young adults. People who first use marijuana before age 16 are at higher risk of becoming dependent and experiencing anxiety disorders.

People with mental health conditions. Conditions including depression, anxiety, and psychotic disorders all increase a person's vulnerability to developing CUD.

Individuals with family history of substance use disorders. Genetic and environmental factors contribute to the risk of cannabis dependence.

Pregnant people. Cannabis use may affect fetal growth and development.

Heavy or daily users. People who use marijuana heavily or daily, especially high-THC products, have a greater risk for CUD, withdrawal symptoms, and cognitive effects.

You Need to Know

You can play an important role in educating youth and adults about protecting themselves and others. Share these key points:

Marijuana is addictive.

Using marijuana regularly, especially high-potency products, increases your risk of becoming dependent. It also increases risk for diseases and mental health concerns.

Marijuana use harms brain development.

The brain continues to develop through your twenties. Using marijuana makes it difficult to perform well in school and sports.

Marijuana harms infants.

Do not use marijuana while pregnant or nursing. Avoid exposing children to second-hand smoke or vapor to prevent children from having respiratory infections.

Marijuana increases injury risk.

Because marijuana compromises judgment and reaction times, people should not drive or operate machinery while intoxicated, even mildly.

Marijuana can have interactions with other medications.

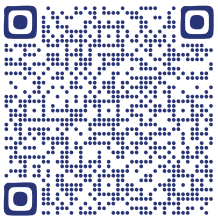
Talk to a healthcare provider about your specific health conditions and medications to determine whether marijuana use is safe for you.

Access support to help you quit.

Help is available. You can connect to mental health professionals or mutual support groups. Using support increases the likelihood that you will quit and can prevent relapse.

Resources

- **Arkansas Office of Substance Abuse and Mental Health**
- **SAMHSA findtreatment.gov | 1-800-662-HELP (4357)**



Methamphetamine



What is meth?

Methamphetamine, commonly called meth, is a powerful central nervous system stimulant. Meth use is a major health concern nationally and around the world. It is a common driver of substance use disorders and overdose.

While the prescription product Desoxyn® is still available for limited use for conditions like ADHD and obesity, almost all methamphetamine available today is produced illegally in large-scale operations based outside the U.S.

How is meth used?

Regular meth comes in the form of a pill or powder. Crystal meth looks like small fragments of glass or shiny bluish-white rocks. People swallow, snort, smoke, or inject meth.

The effects can last for anywhere from half a day to several days. It can also lead to severe mental health complications, including permanent psychosis.



Adult meth use in Arkansas was almost double the national rate in 2021-2022.

Arkansas is ranked the 3rd highest state in the U.S. for meth use.

Legal Status

Methamphetamine is classified as a Schedule II controlled substance, meaning it has a recognized medical use, but also a high risk of abuse. Only one FDA-approved methamphetamine product exists (Desoxyn®). It is prescribed rarely for ADHD or obesity. Refills are not allowed.

Federal law tightly restricts access to chemicals that are used to make methamphetamine, including pseudoephedrine, an ingredient in some decongestants. Purchasers have to show ID, and sellers must record the purchase in a logbook.

Effects of Meth Use

Meth stimulates the release of dopamine, a neurotransmitter involved in reward, pleasure, and movement. This surge produces intense euphoria, which makes it powerfully addictive.

Even small amounts of methamphetamine can cause:

- Increased wakefulness, energy, and libido
- Decreased appetite and weight loss
- Rapid breathing, rapid or irregular heart rate, and high blood pressure
- Anxiety, irritability, and insomnia
- Elevated body temperature (hyperthermia)

Individuals who take high doses may experience these effects:

- Extreme or even fatal hyperthermia
- Convulsions and cardiovascular collapse
- Violent behavior, paranoia, or hallucinations
- Death from stroke or heart attack

Risks of Meth



Brain and Mood

Chronic use of meth in any amount can damage the dopamine-producing cells in the brain. People who use meth for a long time might feel anxious, confused, or have trouble sleeping. They can also develop psychotic symptoms like paranoia, aggression, hallucinations, or delusions. Individuals who experience paranoia can also have thoughts about hurting themselves or others. Meth is more likely than other illicit drugs to trigger psychosis, which can be indistinguishable from schizophrenia.

Fetal and Infant Development

Using meth while pregnant or nursing can result in permanent harm to a baby's growth and development.

Oral Health

Meth use decreases saliva and can cause grinding or clenching the jaw. Both increase the risk of infections, cavities, and tooth loss.

Heart, Lung, Liver, and Kidney Health

Meth use can permanently or fatally damage organs. Use can cause heart attacks, strokes, and kidney failure. Individuals who smoke meth are more likely to develop chronic obstructive pulmonary disease (COPD).

Substance Use Disorders and Withdrawal

Meth is highly addictive. Currently, no medication has proven broadly effective for treating methamphetamine use disorder. Withdrawal is not typically medically dangerous, but it can be very difficult psychologically, including the potential for suicidal thoughts.

Withdrawal symptoms include intense depression, anxiety, paranoia, pain, fatigue, poor sleep, and craving to use again. Symptoms typically calm down in one to three months.

Intensive, long-term treatment is associated with better outcomes, but brief interventions may be useful when an individual's motivation is low.

You Need to Know

You can play an important role in educating youth and adults about protecting themselves and others. Share these key points:

Do not use while nursing or pregnant to prevent permanent harm to an infant's growth and development.

Combining meth with other drugs or alcohol increases overdose risk.

Overdose Response

Call 911 if you notice signs of overdose:

Unconsciousness
High body temperature
Headache
Loss of balance
Numbness
Blurred vision in one eye
Difficulty speaking
Chest pain
Difficulty breathing
Seizures

OORMs, such as naloxone, do not reverse meth overdoses, but if you suspect someone also took an opioid, you can administer one.

Recovery is possible. Support is available through treatment, peer recovery groups, and community resources. Talk to a health care provider about ways to stop using meth.

Resources

- Arkansas Office of Substance Abuse and Mental Health
- SAMHSA findtreatment.gov | 1-800-662-HELP (4357)

OTC Medications



What are OTC medications?

Over-the-counter (OTC) medications are those that can be purchased without a prescription and are generally considered safe when used as directed. However, these two characteristics also make them popular targets for misuse.

How are they misused?

Misuse means taking a medication in a way not designated on the package, taking it to get high, or mixing it with other products to create a different drug. Some people misuse OTC medications to achieve a euphoric feeling. Others use them to self-medicate for chronic pain, anxiety, or depression. Although people might perceive them as "safe," they can be addictive and can harm your health when misused.

Frequently misused OTC medications include:

Cough Medicines. Dextromethorphan (DXM) is taken for euphoric effects. Non-liquid forms are purchased more often because they are easier to consume in high doses and are easier to hide.

Anti-Diarrheal Medications. Loperamide is an antidiarrheal medication that works on the same receptors in the body as opioids. At high doses (70-100 mg/day), it can induce a mild high. Some people use it to self-treat opioid withdrawal symptoms.

Motion Sickness Medicines. Dimenhydrinate is an antihistamine used to prevent and treat motion sickness. It can have psychedelic properties when taken in high doses.

Cold Medicines. Pseudoephedrine is a decongestant. It can produce an intense high or hallucinations. It can be used to make methamphetamine, so it is sold "behind the counter." In Arkansas, you must be 18 to purchase it, and pharmacies are required to log the purchaser's identity and the amount sold.

Effects of OTC Medication Misuse

Misusing OTC medications can have significant physical and psychological effects when taken at higher doses. If use continues, you can become dependent on them. Here are some of the short-term effects that can be experienced with various misused medications:

Dextromethorphan (DXM)

- Sedation
- Euphoria, hallucinations, confusion
- Poor motor control, slurred speech, vision changes
- Sweating, overheating
- Increased heart rate and blood pressure
- Nausea, vomiting

Dimenhydrinate

- Euphoria or calm
- Hallucinations
- Nausea
- Irregular heartbeat

Pseudoephedrine

- Euphoria and increased energy
- Hallucinations
- Rapid or erratic heartbeat
- Shortness of breath
- Dizziness or seizures

Loperamide

- Happiness or relaxation
- Fainting
- Stomach pain or constipation
- Rapid or erratic heartbeat

Populations at higher risk for OTC medication misuse:

- Adolescents
- People who have health conditions or psychiatric disorders
- People with untreated substance use disorders

Risks of OTC Medication Misuse

You can become dependent on OTC medications. Long-term use can cause changes in brain chemistry, damage to kidneys and liver, and balance disorders.

You can overdose on OTC medications. Overdoses can require hospitalization and result in permanent organ damage or death. Risk of death increases greatly when OTC medications are mixed with alcohol or other drugs.

You Need to Know

You can play an important role in educating youth and adults about protecting themselves and others. Share these key points:

Keep OTC medications securely stored where children cannot access them without adult supervision. Check with your local police department about drug take-back events to safely dispose of unused medications.

Use OTC medications only as indicated on the package to prevent dependence and overdose. Prolonged or higher doses can be life-threatening. Never mix OTC medications with alcohol or other drugs because this greatly increases risk of overdose.

Ask a health care provider for support in managing pain, mental health concerns, or opioid withdrawals. Self-managing symptoms can harm you more than help you.

Overdose Response

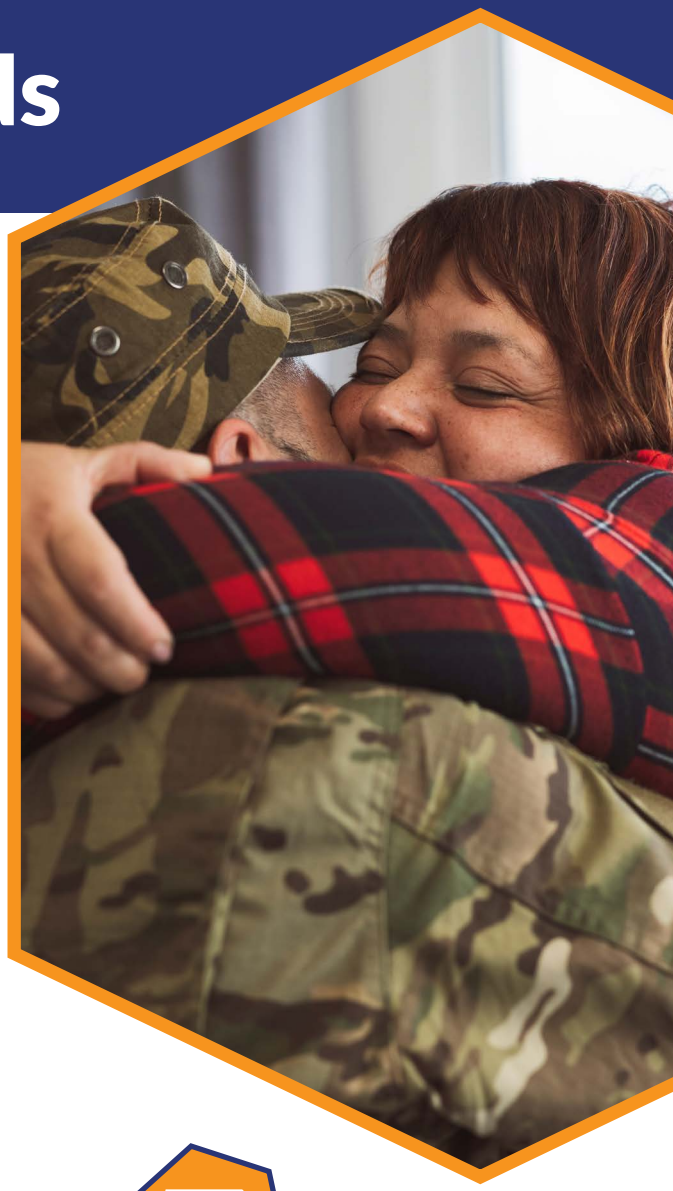
Call 911 if you notice signs of overdose, which could include unconsciousness, trouble breathing, heartbeat that is very fast or very slow, overheating, slurred speech, or blurred vision.

Administer an OORM if the person has taken an antidiarrheal medication containing loperamide or if you suspect other opioid drugs have been used.

Resources

- Arkansas Office of Substance Abuse and Mental Health
- SAMHSA findtreatment.gov | 1-800-662-HELP (4357)

Prescription Opioids



What are prescription opioids?

Prescription opioids are medications derived from the opium poppy plant. They are most commonly used to relieve acute or chronic pain. They can also be used to treat coughing and diarrhea.

Examples of prescription opioids include:

- Hydrocodone (Vicodin®, Lortab®)
- Oxycodone (OxyContin®, Percocet®)
- Morphine (Kadian®, Avinza®)
- Codeine (Tylenol® with Codeine)
- Fentanyl (Fentora®, Duragesic®)

How are prescription opioids misused?

Misuse means taking a medication in a manner or dose other than prescribed, taking someone else's prescription (even for legitimate complaints), or using it specifically to get "high."

Prescription opioids are available in several forms:

Oral: Tablets, capsules, or liquid suspensions

Transdermal: Patches that deliver medication through the skin

Injection: Liquids administered intravenously or intramuscularly in clinical settings

In misuse cases, pills can be ground into powder that is snorted or mixed with liquid to self-inject.



In 2023, the opioid dispensing rate in Arkansas was 71.5 prescriptions per 100 people, almost double the national average.

Legal Status

Most prescription opioids are classified as Schedule II controlled substances. This means they have a high potential for abuse that may lead to severe psychological or physical dependence. Unauthorized possession, distribution, or "sharing" of these medications is illegal and subject to criminal prosecution.

Effects of Prescription Opioids

Opioids work by attaching to specific receptors in the brain and spinal cord, blocking pain signals, and releasing large amounts of dopamine. Opioid medications are prescribed to decrease pain and increase relaxation.

Side Effects

Unpleasant or even dangerous side effects can include:



Risks of Misuse

People can develop serious health conditions and have a higher risk of injury or death when misusing prescription opioids.

Pain Sensitivity

Long-term opioid use can make a person more sensitive to pain, a condition called opioid-induced hyperalgesia (OIH).

Health Concerns

Chronic or long-term use is associated with:

- Compromised immune system
- Sex hormone deficiency
- Falls and bone fractures
- Gastrointestinal problems
- Sleep issues, including central sleep apnea where your brain stops signaling your body to breathe

Substance Use Disorders and Withdrawals

Repeated use, even as prescribed, can lead to physical dependence as the body adapts to the drug. Increasingly higher amounts are needed to have pain relief. Stopping use can cause severe symptoms, including bone and muscle pain, diarrhea, vomiting, and uncontrollable leg movements.

Overdose

Opioids are a leading cause of accidental death in Arkansas. When misused, they can slow down breathing and deprive the brain of oxygen. This can cause coma, permanent brain damage, and death. People who take more than prescribed or who combine medication with alcohol or other drugs greatly increase their risk of overdose.

You Need to Know

You can play an important role in educating youth and adults about protecting themselves and others. Share these key points:

If you have severe or chronic pain, ask your healthcare provider about all pain management options. There are many other types of non-habit-forming medications, therapies, and lifestyle practices that help people reduce pain.

Do not deviate from your prescription. If you are prescribed an opioid, adhere to guidance on dose, frequency, and duration of use. This will prevent you from becoming dependent and reduce risk of side effects or overdose.

Do not mix opioids with other substances unless approved by your physician. Combining opioids with alcohol, other medications, or recreational drugs greatly increases the risk of fatal overdose.

Do not misuse prescription opioids if you are pregnant or nursing. Misuse increases the risk of complications in pregnancy and labor. It can harm your baby's development and result in their having painful withdrawal symptoms.

Educate children about medication safety. The average age that people in Arkansas report their first misuse of prescription medication is 12. Encourage families and educators to teach children about risks of misusing medication while they are young. Make sure your own medications are in a secure place, out of sight and out of reach of children. If you have an unused medication, ask your pharmacist how to dispose of it safely.

Talk to your health care provider about support. There are medications and other supports that can help you to reduce discomfort or pain of withdrawal.

Overdose Response

Carry an OORM, such as naloxone. Tell a trustworthy person that you carry it, and ensure they know signs of overdose and how to use the OORM.

911

If you notice any of these signs of overdose, first call 911. Then administer an OORM.

Unconsciousness

Slow or irregular heartbeat or breathing

Blue lips or fingernails

Pinpoint pupils

Cold or clammy skin

Gurgling

Snoring

Resources

- Arkansas Office of Substance Abuse and Mental Health
- SAMHSA findtreatment.gov | 1-800-662-HELP (4357)

Prescription Stimulants



What are prescription stimulants?

Prescription stimulants are medications primarily used to treat attention-deficit hyperactivity disorder (ADHD) and narcolepsy. Drugs within this category include:

- Amphetamine/Dextroamphetamine (Adderall®)
- Dextroamphetamine (Dexedrine®)
- Lisdexamfetamine (Vyvanse™)
- Methamphetamine (Desoxyn®)
- Methylphenidate (Concerta®, Ritalin®)

How are prescription stimulants misused?

Misuse means taking a medication in a manner or dose other than prescribed, taking someone else's prescription (even for legitimate complaints), or using it specifically to get high.

Prescription stimulants are typically taken orally in tablet or capsule form. Some are also available as patches that allow the drug to be absorbed slowly through the skin.

Legal Status

These drugs are Schedule II stimulants, indicating they have a currently accepted medical use but a high potential for abuse. Pharmaceutical products are only available through non-refillable prescriptions.

Education and prevention efforts should begin no later than 6th grade.

The average age that people in Arkansas report first misusing prescription drugs is 12.

Effects of Prescription Stimulants

Desired effects of prescription stimulants are to increase alertness and focus.

Side effects of prescription stimulants can be:

- Loss of appetite
- Insomnia
- Dramatic mood swings
- Nervousness
- Fever

Jitteriness and social withdrawal are common side effects in children.

Risks of Misuse



Chronic Misuse

People who misuse prescription stimulants have an increased risk of developing cardiovascular diseases. They can also have psychotic symptoms, very much like schizophrenia:

- Intense paranoia
- Picking at the skin
- Visual and auditory hallucinations
- Agitated or violent behavior

Substance Use Disorder and Withdrawal

Repeated misuse can lead to strong physical and psychological dependence. Withdrawal symptoms typically include fatigue, deep depression, and irritability.

Poly-Drug Interactions

Stimulant misuse can prevent other prescribed medications from working effectively. Combining stimulants with alcohol or other drugs outside of medical supervision increases the risk of developing heart conditions or experiencing a stroke or fatal overdose.

Taking an Unknown Substance

Taking stimulants that are obtained from sources other than U.S.-licensed pharmacies is risky. Websites selling counterfeit medications can appear legitimate, but because they are not regulated by the FDA, products can be contaminated. People have experienced life-threatening and fatal overdoses after taking stimulants that also contained highly potent illicit drugs, such as fentanyl or xylazine.

Overamping

A stimulant overdose is referred to as "overamping." Overamping on prescription stimulants is more often painful than fatal, but symptoms can require emergency medical attention. The risk for heart attack, stroke, and death increases when individuals have pre-existing health conditions or when they mix drugs.

Although OORMs do not reverse the effects of stimulants, they are safe to administer if you suspect the presence of an opioid.

You Need to Know

You can play an important role in educating youth and adults about protecting themselves and others. Share these key points:

Misusing prescription stimulants is risky. Chronic misuse can permanently damage your heart. Overamping or overdose can occur when you take too much, take them when you have other health conditions, or take them in combination with alcohol or other drugs.

Drug safety education helps keep children safe. Teach children that taking other people's medication is dangerous, even if they feel pain or discomfort. Make sure your own medications are in a secure place, out of sight and out of reach of children. If you have an unused medication, ask your pharmacist how to dispose of it safely.

Purchase prescription stimulants only from U.S.-based, licensed pharmacies. Occasionally there are shortages of prescription stimulants, so even if you have a prescription, your usual pharmacy can run out of stock. Be cautious when shopping around.

Before using an online pharmacy, independently verify that it has a Board of Pharmacy license. Do not purchase from any site that does not require a prescription. Refer to FDA.gov for more information about detecting counterfeits.

Do not mix drugs without medical supervision. Prescription medications can be dangerous when combined with alcohol, opioid drugs, or other stimulants. If you knowingly use opioid drugs, or if you take medications from unreliable sources, carry an OORM, such as naloxone.

If you have become dependent on a prescription stimulant, talk to a health care provider. Ask them to monitor your blood pressure and heart health. They can also help you make a plan to minimize your withdrawal symptoms.

Overdose Response

Call 911 if you notice signs of overamping.

Unconsciousness	*Chills*	*Blurred vision in one eye*
Racing pulse	*Severe headache*	*Hallucinations*
Nausea or vomiting	*Teeth grinding*	*Extreme agitation*
Shortness of breath	*Tremors or convulsions*	*Paranoia*
High body temperature	*Numbness*	

OORMs, such as naloxone, can be administered if you suspect the presence of an opioid.

Resources

- **Arkansas Office of Substance Abuse and Mental Health**
- **SAMHSA findtreatment.gov | 1-800-662-HELP (4357)**
- **Food & Drug Administration fda.gov**

Steroids *(anabolic-androgenic)*



What are steroids?

Anabolic-androgenic steroids (AAS) are synthetic variations of testosterone. **"Anabolic"** refers to muscle building. **"Androgenic"** refers to increased male sex characteristics.

AAS are used to treat medical conditions such as delayed puberty or disease-related muscle loss. They can be misused by athletes and bodybuilders to enhance performance or physical appearance.

Illicit sales of AAS occur online, in gyms, and in bodybuilding competitions. Commonly misused AAS include testosterone, trenbolone, oxymetholone, methandrostenolone, nandrolone, and boldenone.

How are steroids used?

AAS can be swallowed, injected, or applied to the skin with creams or patches. To minimize adverse effects, common practices for AAS misuse are:

- **Cycling**: taking multiple doses over a specific period, stopping for a time, and starting again.
- **Stacking**: combining two or more different types of steroids.

Legal Status

AAS are classified as Schedule III controlled substances. They have an accepted medical use but a moderate-to-low potential for physical or psychological dependence. Possessing or selling steroids without a valid prescription is illegal.

Poly-Substance Misuse

A national study published in 2022 estimated AAS misuse in about 3% of adolescents.

The study identified a high co-occurrence of intravenous AAS use and heroin use.

Effects of Steroids Misuse

Using AAS increases lean muscle mass, bone mass, endurance, and strength when accompanied by physical training. There are also claims that AAS reduce athletic recovery time, but this is not supported by research.

While these benefits are short-lived, the health risks of AAS misuse can be profound and long-term.

Risks of Steroids Misuse



Cardiovascular
Increase of high blood pressure, heart attacks, stroke, and artery damage

Skin
Severe acne, oily skin, abscesses at injection sites

Mental Health
Aggression, mania, delusions

Liver and Kidneys
Inflammation, scarring, tumors, cysts, and organ failure

Tendon Injury
Rupture of biceps and quadriceps tendons

Hormones
In men, decreased sperm production, sexual dysfunction, enlarged breasts, baldness

In women, decreased breast size, deeper voice, increased body hair, male-pattern baldness

Infections
For people who inject, HIV, hepatitis B and C, and bacterial infections due to non-sterile or shared equipment

Dependence, Withdrawal, and Suicidality

One-third of people who misuse AAS become dependent on them. They require increasingly larger doses over time to get the same effect, and they can have withdrawal symptoms such as insomnia, loss of appetite, reduced sex drive, depression, and suicidal thoughts.

Some negative effects are reversible if AAS misuse is discontinued, but medical intervention can be required.

You Need to Know

Research shows that athletes and bodybuilders are more likely to avoid AAS when people in their communities are willing to discuss the benefits of use as well as the risks. **Coaches, families, and professionals in community settings can help prevent harm in the following ways:**

Be aware of signs of AAS misuse:

- *Rapid, unexplained weight gain and muscle growth*
- *Severe acne, especially on the shoulders and back*
- *Increased aggression, intense mood swings*
- *Needle marks or injection wounds*

Find out a person's goals for AAS use. Then help formulate a plan to achieve their goals through research-based weight-training, rest, nutrition, and stress reduction practices.

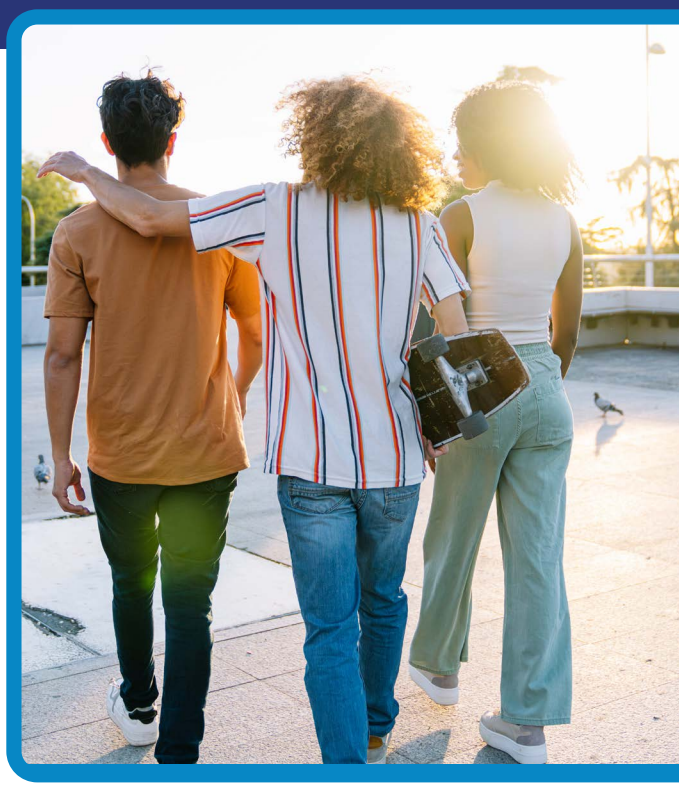
Do not rely on fellow gym-goers or online influencers to guide use. Acting on misinformation, for example about how to self-inject, can lead to permanent harm. AAS should only be used if prescribed by a licensed healthcare provider to treat a medical condition.

Consult a healthcare provider about AAS cessation. Medical support can prevent severe withdrawal symptoms, such as suicidal thoughts. Because body dysmorphic disorder is common among people who misuse AAS, consultation with a mental health provider can also be helpful.

Resources

- **Arkansas Office of Substance Abuse and Mental Health**
- **SAMHSA findtreatment.gov | 1-800-662-HELP (4357)**

Synthetic Marijuana



What is synthetic marijuana?

Synthetic marijuana or synthetic cannabinoids refers to hundreds of laboratory-made chemicals designed to mimic THC, the active component of cannabis, but often with much stronger and unpredictable effects.

"K2" and "spice" are two common trade names for these substances. They are frequently packaged deceptively as potpourri or incense.

Synthetic cannabinoids first appeared in the early 2000s and quickly gained popularity. They can be cheaper than marijuana and are less likely to be detected by drug tests. Their chemical structures change frequently to evade detection and regulation.

How is synthetic marijuana used?

Synthetic cannabinoids are sprayed on or mixed with dried plant material to be smoked or to be dissolved for e-cigarette liquids. Packaging rarely lists ingredients, concentration, or chemical identity, posing major risks for users. The substances are consumed by smoking, vaping, or ingesting.

Legal Status

Synthetic cannabinoids are Schedule I controlled substances in the U.S. They have no recognized medical use and are subject to prosecution under federal law. Despite attempts to skirt regulation by changing formulas, law enforcement continues to target their sale and distribution.

Effects of Synthetic Marijuana

The chemical compounds in synthetic cannabinoids bind with cannabinoid receptors in the brain, producing psychoactive effects, usually stronger than THC. These chemicals may also affect other neurotransmitter systems, such as dopamine and serotonin, which contributes to their highly unpredictable effects.

Because there are so many different versions of these compounds, the resulting highs may last a few minutes to a few hours. Although people may take these substances to feel relaxed, common acute reactions include:

- Rapid heartbeat
- High blood pressure
- Nausea, vomiting
- Tremors, dizziness
- Convulsions, seizures
- Hallucinations, paranoia
- Suicidal ideation
- Loss of consciousness
- Chest pain, heart attack
- Acute kidney injury

Risks of Synthetic Marijuana



Despite being marketed as a safer alternative to marijuana, synthetics can be addictive. The acute symptoms described above can require hospitalization. One-time use can result in a dangerous health emergency, or in rare cases, death.

Synthetic marijuana can be contaminated with other toxic substances. For example, America's Poison Centers report tracking cases of contamination from the rat poison brodifacoum, which caused fatalities. Symptoms in those cases included excessive or unexplained bleeding.

You Need to Know

You can play an important role in educating youth and adults about protecting themselves and others. Share these key points:

Synthetic marijuana is not a safe alternative to cannabis.

Effects can be much stronger and less predictable. Potency, ingredients, and dosage are not standardized. Severe medical and psychiatric emergencies can happen after just one use.

You can become dependent on synthetic marijuana use and experience withdrawal symptoms.

Talk to your health care provider about treatment and support for reducing or quitting use.

Resources

- **Poison Control 1-800-222-1222**
- **Arkansas Office of Substance Abuse and Mental Health**
- **SAMHSA findtreatment.gov | 1-800-662-HELP (4357)**

Tobacco *and nicotine*



What is tobacco?

Tobacco is a plant (*Nicotiana tabacum*) containing nicotine, a highly addictive chemical that acts as both a stimulant and a sedative.

While tobacco products contain thousands of chemicals, nicotine is the primary reinforcing component that drives substance use disorders.

How is tobacco used?

Tobacco and nicotine products are consumed through various routes, all of which deliver nicotine to the brain within seconds:



Smoking
Tobacco is inhaled into the lungs using combustible products like cigarettes, cigars, hookahs, and pipes.



Smokeless Tobacco
Chewing tobacco, snuff, and dip are held in the mouth or sniffed. Nicotine from these products is absorbed through the mucous membranes.



ENDS (electronic nicotine delivery systems)
These devices heat liquids that can contain nicotine derived from tobacco as well as other harmful chemicals. The heated liquid produces an aerosol that the user inhales.

Effects of Tobacco

The nicotine in tobacco products triggers the release of adrenaline and activates reward pathways in the brain by increasing levels of dopamine. This causes the user to feel a "kick" or rush. Their blood pressure, heart rate, and breathing rate increase. They can experience temporary feelings of pleasure, increased alertness, and reduced anxiety.

Risks of Tobacco

Diseases

Heart Disease: Smoking contributes to coronary heart disease, the leading cause of death in the U.S., by narrowing arteries and reducing oxygen in the blood.

COPD: Tobacco use is the primary cause of chronic obstructive pulmonary disease (COPD), including emphysema and chronic bronchitis.

Cancer: Tobacco use weakens the body's immune system, making it more difficult to kill cancer cells. People who use tobacco are at much higher risk for cancer of the lungs, breast, esophagus, cervix, colon, liver, pancreas, and stomach.



Tobacco use is the leading cause of preventable death and disease in Arkansas.

Tobacco-related health care costs are $1.41 billion per year.

Brain and Mood

Youth Brain Development: Nicotine can harm the parts of the adolescent brain that control attention, learning, and impulse control.

Mental Health: While some people start using tobacco to cope with stress, quitting is associated with reduced depression, anxiety, and improved mood.



Pregnancy

Fetal Development: Tobacco use during pregnancy decreases flow of oxygen to the fetus. This puts the fetus at risk for poor breathing, low birth weight, premature birth, and birth defects. After birth, children can experience learning problems and respiratory disorders as they get older.

Nicotine exposure, either during pregnancy or in an infant's environment, increases the risk of Sudden Infant Death Syndrome (SIDS).

Environmental Exposure

Second-hand

Smoke or vapor from your tobacco products can be inhaled by people around you. This raises the risk of heart disease for people in your home by 25%-30%.

Children exposed to second-hand smoke have more ear infections and asthma.

Third-hand

When you smoke or vape, chemical residue lands on furniture, carpet, and clothing.

Other people, especially children, can be exposed to harmful chemicals by touching these surfaces.

Substance Use Disorders and Withdrawal

Most people who smoke become addicted to nicotine, making it very difficult to quit. Withdrawal symptoms typically include irritability, restlessness, anxiety, insomnia, and fatigue. Symptoms generally peak within the first week and vanish within a couple of weeks.

You Need to Know

You can play an important role in educating youth and adults about protecting themselves and others. Share these key points:

Have a Safe Pregnancy

To protect the health of your baby, quit as early as possible. Do not switch to vaping or "light" cigarettes, as these still deliver nicotine and harmful aerosols to the fetus. Your health care provider can help you make a plan to ease withdrawal symptoms.

Protect Others from Exposure

Clearing the air isn't enough; nicotine residue sticks to everything your loved ones touch.

- Keep your home and your car 100% tobacco-free. Never smoke or vape inside, even if others are not present. Smoke travels through vents and settles into carpets, furniture, and toys.

- If you have been smoking or vaping, wash your hands and face and change into clean clothes before holding an infant or playing with children.
- To reduce residue on hard surfaces, wipe them down with a diluted white vinegar solution. For porous items like carpets or upholstery, professional replacement is often the only way to fully remove the toxic chemical buildup.
- Children can be poisoned by handling or ingesting nicotine. Keep all nicotine products out of sight and out of reach of children. This includes used or disposed products like cigarette butts or nicotine patches. If your child has been exposed, call Poison Control or 911.

Car Safety



In Arkansas, it is illegal to smoke in a vehicle with a child under 14 years old (Act 811).

Get Support to Quit

People who quit not only have better physical health but also less anxiety and depression. If you relapse, keep trying. It is difficult but worth it!

Using a combination of counseling and FDA-approved medications (like patches or gum) more than doubles your chances of successfully quitting for good. A "Be Well" counselor can talk to you by phone or web chat free of charge.

Resources

- **Be Well Arkansas** bewellarkansas.org **| 1-833-283-9355**
- **Poison Control 1-800-222-1222**
- **Arkansas Office of Substance Abuse and Mental Health**
- **SAMHSA findtreatment.gov | 1-800-662-HELP (4357)**

U-47700 *"Pink"*



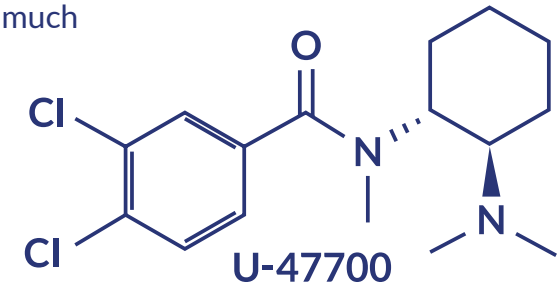
What is U-47700?

U-47700 is a highly potent synthetic opioid. Synthetic opioids are laboratory-made substances that act on the same brain receptors as natural opioids such as morphine and codeine.

U-47700 has become easily accessible on the dark web and is marketed as a "research chemical" or "legal opioid" under the name "Doxylam".

Although it was patented by the Upjohn company in 1976, U-47700 never advanced to the point of being studied in humans. The drug resurfaced beginning in 2013 and has been found in synthetic cannabis and counterfeit opioids.

Other names for U-47700 are "pink," "U4," or "fake morphine." Like other synthetic opioids, it is much stronger than morphine.



U-47700

How is U-47700 used?

U-47700 is found as a powder or pressed into tablets. People may swallow, snort, or inject it.

It is often sold as a substitute for other drugs, such as heroin, hydrocodone, or synthetic cocaine. It is common for people who have U-47700 overdoses to think they used a different drug. Because of its potency, it is very unpredictable and dangerous. Small amounts can cause fatal overdose.

Effects of U-47700

U-47700 acts as a selective agonist at the mu-opioid receptor, a protein in the brain responsible for pain relief and feelings of euphoria. This means it attaches to the same sites as drugs like morphine and heroin, but it is considerably more powerful—up to 12 times stronger than morphine.

Individuals using U-47700 may experience a range of effects, including:

- Pain relief
- Sedation
- Euphoria/relaxation
- Confusion
- Dizziness/drowsiness
- Urinary retention (inability to fully empty bladder)
- Itchy or cold/clammy skin
- Pinpoint pupils
- Constipation, nausea, or vomiting

The most dangerous effect is respiratory depression, which can quickly become life-threatening.

Risks of U-47700



Because individuals who use U-47700 frequently do not know what they are consuming—or how strong it is—the likelihood of accidental overdose is extremely high.

U-47700 may have also been mixed into heroin or counterfeit prescription tablets, which increases risk further.

Overdose Response

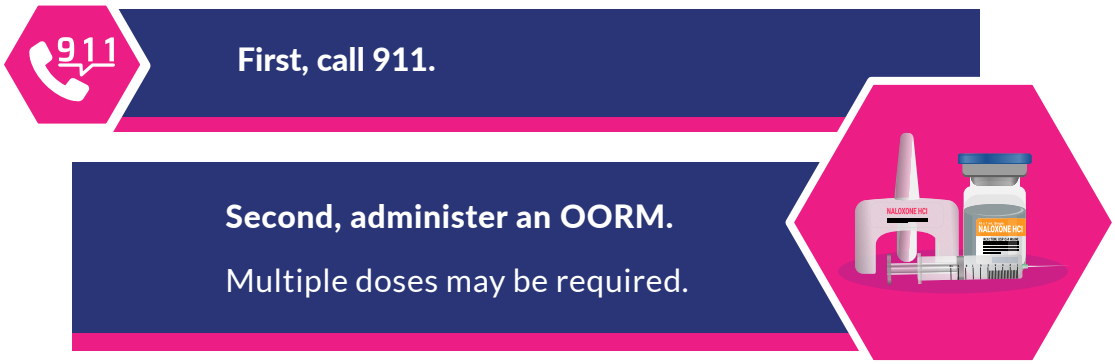
You can play an important role in educating youth and adults about protecting themselves and others. Share these key points:

Never mix drugs because this increases the likelihood of overdose.

Carry an OORM kit and watch for signs of overdose:

- Unconsciousness
- Irregular breathing or heartbeat
- Snoring or gurgling
- Cold or clammy skin
- Pinpoint pupils
- Blue lips or fingernails

Take these immediate actions if you suspect an overdose from U-47700 or other opioid drugs:



Avoid handling unknown powders.

Though accidental brief skin contact is unlikely to cause opioid toxicity, inhalation, ingestion, mucous membrane exposure, or prolonged contact with potent opioids can be dangerous.

Resources

- Arkansas Office of Substance Abuse and Mental Health
- SAMHSA findtreatment.gov | 1-800-662-HELP (4357)

Vaping



What is vaping?

Electronic nicotine delivery systems (ENDS) are handheld devices that create vapor by heating liquids that contain nicotine. Some liquids also include cannabis-derived compounds. People can inhale the vapor, similar to smoking traditional cigarettes.

ENDS can look like pens, USB flash drives, or small cartridges.

Names for ENDS include “vapes,” “vape pens,” “vaporizers,” and “e-cigarettes.”

ENDS have been falsely marketed as a safer alternative to smoking traditional cigarettes. In fact, they contain harmful ingredients such as:

- Nicotine
- Heavy metals
- Diacetyl, a chemical linked to serious lung disease (“popcorn lung”)
- Volatile organic compounds (VOCs) and cancer-causing chemicals

Arkansas Youth

Results of the 2024 Arkansas Prevention Needs Assessment survey show:

12% of 12th graders reported using nicotine vapes in the 30 days preceding the survey.

More than 20% of 12th graders reported that they had ever vaped nicotine.

The average age for first use was 12.8 years.

How are vapes used?

There are disposable vapes and refillable vapes. When the user presses a button or inhales, a battery inside the device powers a heating coil that vaporizes the liquid. The vapor that is produced is not pure water vapor; it contains many chemicals.

Vapes deliver nicotine in two forms. Freebase nicotine, the older formulation, is harsher and more irritating to the throat. Nicotine salts, by contrast, are smoother and easier to inhale, which means users can inhale much higher doses with less discomfort. This has made vaping more appealing to new users while increasing the risk of dependence.

Some people try using vapes to help stop smoking regular cigarettes. This is not an effective method for smoking cessation. It often leads to dual use of ENDS and cigarettes, which can present more harm to your health than using one or the other.

Legal Status

Federal law prohibits sales of ENDS to anyone under 21, but about a third of youth surveyed for the Arkansas Prevention Needs Assessment reported that it was “fairly easy” or “very easy” to get a vaping device and e-liquid with nicotine.

ENDS are regulated by the FDA, but it is estimated that half of the ENDS products on the market are unauthorized, having been imported from other countries in mislabeled packages.

Effects of Vaping

When nicotine is inhaled, it binds to receptors in the brain that trigger a surge of dopamine, the neurotransmitter that reinforces pleasure and reward. Nicotine salts generally reach the brain quickly and deliver a stronger effect than traditional cigarettes. Because the vaping aerosol is drawn deep into the lungs, nicotine enters the bloodstream rapidly. This produces a rush that keeps people coming back.

In the short term, vaping nicotine can increase alertness, raise heart rate and blood pressure, and cause throat irritation or coughing. Excessive use may lead to nausea, dizziness, chest discomfort, or tremors.

Over time, individuals who try to quit vaping often experience withdrawal symptoms. These can include irritability, anxiety, depressed mood, strong cravings, and difficulty concentrating or sleeping. Many of these symptoms are temporary, but they can make quitting feel daunting without support.

Risks of Vaping



Youth Brain Development

Nicotine is known to have negative effects on brain development, which occurs until about age 25. This can impair attention, learning, and impulse control. Vaping can also worsen anxiety and depression.

Fetal Development

Nicotine can harm fetal brain and lung development. Vaping is linked to pre-term and low-weight births.

Disease

EVALI is lung damage attributed to ENDS product use, especially when the liquid contains THC (cannabis). EVALI can lead to hospitalization and death. Symptoms of EVALI include:

- Shortness of breath
- Difficulty breathing
- Nausea
- Vomiting
- Diarrhea
- Fever and chills

Vaping also increases risk for cancer, tooth decay, and oral disease.

You Need to Know

You can play an important role in educating youth and adults about protecting themselves and others. Share these key points:

Keep vaping devices out of sight and out of reach from children.

To protect fetal and infant development, pregnant or nursing women should not use ENDS of any kind. Encourage parents not to vape around children, because the vapor can contain chemicals that are harmful to brain development.

Taking it one step at a time allows you to make progress at your own pace. You can begin by lowering the nicotine concentration in e-liquids and avoiding the combined use of cigarettes and vapes. Many people are able to quit with a combination of medical treatment, behavioral support, and encouragement.

Evidence-based treatment options include:

- Nicotine replacement therapies such as patches, gum, or lozenges
- Prescription medications like bupropion or varenicline
- Behavioral supports, including counseling, motivational interviewing, and peer recovery groups

Resources

- **smokefree.gov or text QUIT to 47848**
- **Arkansas Office of Substance Abuse and Mental Health**
- **SAMHSA findtreatment.gov | 1-800-662-HELP (4357)**

Xylazine



What is xylazine?

Xylazine is an animal tranquilizer, commonly called “tranq” or “tranq dope.” While it can be sold legally for veterinary use in the U.S., it is not approved for human use.

Xylazine produces sedative effects similar to opioids, but it is not an opioid. This means that OORMs, such as naloxone, will not reverse its effects. However, xylazine is frequently mixed with opioids, so naloxone should still be given in suspected overdoses.

How is xylazine used?

Xylazine is sold as a liquid for veterinary use, but it can also be bought in powder form on non-veterinary websites. In recent years, xylazine has emerged as a dangerous additive in the illegal drug supply. It can be purchased online in liquid or powder form, including from overseas suppliers, for as little as $6–$20 per kilogram, which makes it attractive to illicit drug traffickers.

It is commonly mixed with fentanyl, heroin, or cocaine to increase or prolong the drug’s effects and to increase street value by adding weight and bulk to the product.

Xylazine is usually injected, but it can also be swallowed, inhaled, smoked, or snorted.

Rapid Rise

In southern states, suspected xylazine overdose deaths increased from 116 in 2020 to 1,423 in 2021, **a 1,227% increase.**

Effects of Xylazine

Individuals who use xylazine may experience these symptoms:

- Drowsiness or sedation
- Dangerously low blood pressure
- Difficulty breathing (made worse if mixed with fentanyl or another opioid)
- Very slow heart rate

Taking xylazine combined with fentanyl or other synthetic opioids increases the potential for fatal overdoses because xylazine's pharmacological effects are similar. Xylazine can reduce already decreased respiratory function even further.

Risks of Xylazine



Skin Wounds

When xylazine is injected, it can cause serious, painful skin injuries like ulcers and abscesses. If these injuries are not treated, they can eventually lead to even more serious complications, including amputation or death.

Severe Withdrawal

Individuals who use xylazine can have severe withdrawal symptoms, including sharp chest pains and seizures. Poly-drug users have reported xylazine withdrawal to be as bad or worse than heroin withdrawal.

Difficult Detection

Routine drug screening tests may not include xylazine. Overdoses involving xylazine can be hard to identify because they present similarly to opioid overdoses, but different rescue treatment is required.

You Need to Know

You can play an important role in educating youth and adults about protecting themselves and others. Share these key points:

Do not use while pregnant or nursing to protect infant development.

Get prompt medical care for skin wounds and infections. These wounds can be managed if they are treated early, but if they are left untreated, they can lead to amputation or even become life threatening.

Overdose Response

Carry an OORM kit and watch for signs of overdose. Xylazine is often mixed with opioids, so take these immediate actions if you see any of these signs of overdose:

Unconsciousness

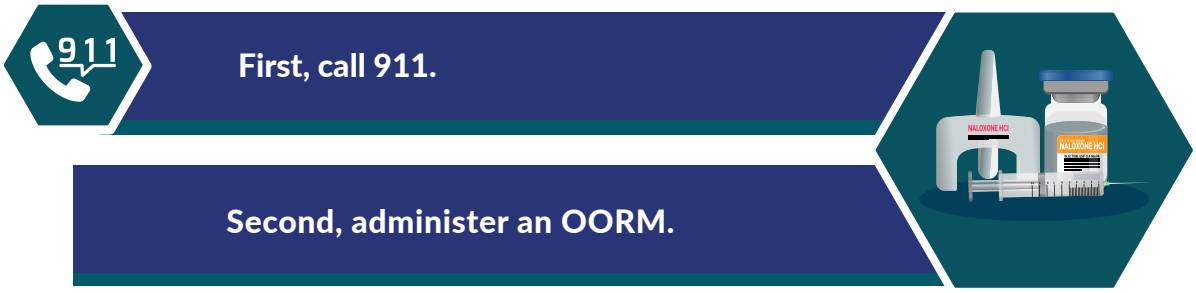
Gurgling or snoring

Slow or irregular heartbeat or breathing

Blue lips or fingernails

Pinpoint pupils

Cold or clammy skin



Resources

- Arkansas Office of Substance Abuse and Mental Health
- SAMHSA findtreatment.gov | 1-800-662-HELP (4357)

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Misused Drugs

Arkansas Provider Reference Guide

DHS | Office of Substance Abuse and Mental Health