National Institutes of Health DrugAbuse.gov



Prescription Drugs

EXPAND ALL

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What is prescription drug misuse?



Also known as:

Opioids: Happy Pills, Hillbilly Heroin, OC, Oxy, Oxycotton, Percs, and Vikes

Depressants: A-minus, Barbs, Candy, Downers, Phennies, Reds, Red Birds, Seeping Pills, Tooies, Tranks, Yellow Jackets, Yellows, and Zombie Pills

Stimulants: Bennies, Black Beauties, Hearts, Roses, Skippy, The Smart Drug, Speed, and Vitamin R, and Uppers

Prescription drug misuse has become a large public health problem, because misuse can lead to addiction, and even overdose deaths. For teens, it is a growing problem:

- After marijuana and alcohol, prescription drugs are the most commonly misused substances by Americans age 14 and older.
- Teens misuse prescription drugs for a number of reasons, such as to get high, to stop pain, or because they think it will help them with school work.

- Many teens get prescription drugs they misuse from friends and relatives, sometimes without the person knowing.
- Boys and girls tend to misuse some types of prescription drugs for different reasons. For example, boys are more likely to misuse prescription stimulants to get high, while girls tend to misuse them to stay alert or to lose weight.

What Makes Prescription Drugs Unsafe

Prescription drugs are often strong medications, which is why they require a prescription in the first place. Every medication has some risk for harmful effects, sometimes serious ones. Doctors consider the potential benefits and risks to each patient before prescribing medications and take into account a lot of different factors, described below. When they are misused, they can be just as dangerous as drugs that are made illegally.

- **Personal information.** Before prescribing a drug, health providers take into account a person's weight, how long they've been prescribed the medication, other medical conditions, and what other medications they are taking. Someone misusing prescription drugs may overload their system or put themselves at risk for dangerous drug interactions that can cause seizures, coma, or even death.
- **Form and dose.** Doctors know how long it takes for a pill or capsule to dissolve in the stomach, release drugs to the blood, and reach the brain. When misused, prescription drugs may be taken in larger amounts or in ways that change the way the drug works in the body and brain, putting the person at greater risk for an overdose. For example, when people who misuse OxyContin crush and inhale the pills, a dose that normally works over the course of 12 hours hits the central nervous system all at once. This effect increases the risk for addiction and overdose.
- **Side effects.** Prescription drugs are designed to treat a specific illness or condition, but they often affect the body in other ways, some of which can be uncomfortable and in some cases, dangerous. These are called side effects. For example, opioid pain relievers can help with pain, but they can also cause constipation and sleepiness. Stimulants, such as Adderall, increase a person's ability to pay attention, but they also raise blood pressure and heart rate, making the heart work harder. These side effects can be worse when prescription drugs are not taken as prescribed or are used in combination with other substances.

How Prescription Drugs are Misused



- **Taking someone else's prescription medication.** Even when someone takes another person's medication for its intended purposes (such as to relieve pain, to stay awake, or to fall asleep) it is considered misuse.
- Taking a prescription medication in a way other than prescribed. Taking your own prescription in a way that it is not meant to be taken is also misuse. This includes taking more of the medication than prescribed or changing its form—for example, breaking or crushing a pill or capsule and then snorting the powder.
- **Taking a prescription medication to get high.** Some types of prescription drugs also can produce pleasurable effects or "highs." Taking the medication only for the purpose of getting high is considered prescription drug misuse.
- **Mixing it with other drugs.** In some cases, if you mix your prescription drug with alcohol and certain other drugs, it is considered misuse and it can be dangerous.

Commonly Misused Prescription Drugs

There are three kinds of prescription drugs that are commonly misused. Visit our separate Drug Facts pages to learn more about each of these classes of prescription drugs:

- Opioids—used to relieve pain, such as Vicodin, OxyContin, or codeine
- <u>Depressants</u>—used to relieve anxiety or help a person sleep, such as Valium or Xanax
- <u>Stimulants</u>— used for treating attention deficit hyperactivity disorder (ADHD), such as Adderall and Ritalin

What happens to your brain when you use prescription drugs?

In the brain, neurotransmitters such as <u>dopamine</u> send messages by attaching to receptors on nearby cells. The actions of these neurotransmitters and receptors cause the effects from prescription drugs. Each class of prescription drugs works a bit differently in the brain:

- Prescription opioid pain medications bind to molecules on cells known as opioid receptors—the same receptors that respond to heroin. These receptors are found on nerve cells in many areas of the brain and body, especially in brain areas involved in the perception of pain and pleasure.
- <u>Prescription stimulants</u>, such as Ritalin, have similar effects to <u>cocaine</u>, by causing a buildup of the brain chemicals dopamine and norepinephrine.
- <u>Prescription depressants</u> make a person feel calm and relaxed in the same manner as the club drugs GHB and rohypnol.

Learn more about how the brain works and what happens when a person misuses drugs.

What happens to your body when you use prescription drugs?

Prescription drugs can help with medical problems when used as directed. However, whether they are used properly or misused, there can be side effects:

- Using <u>opioids</u> like oxycodone and codeine can cause you to feel sleepy, sick to your stomach, and constipated. At higher doses, opioids can make it hard to breathe properly and can cause overdose and death.
- Using <u>stimulants</u> like Adderall or Ritalin can make you feel paranoid (feeling like someone is going to harm you even though they aren't). It also can cause your body temperature to get dangerously high and make your heart beat too fast. This is especially likely if stimulants are taken in large doses or in ways other than swallowing a pill.

• Using <u>depressants</u> like barbiturates can cause slurred speech, shallow breathing, sleepiness, disorientation, and lack of coordination. People who misuse depressants regularly and then stop suddenly may experience seizures. At higher doses depressants can also cause overdose and death, especially when combined with alcohol.

In addition, misusing over-the-counter drugs that contain DXM (usually cold and cough medicines) can also produce very dangerous effects. Find information on misuse of cough and cold medications.

Misusing any type of drug that causes changes in your mood, perceptions, and behavior can affect judgment and willingness to take risks—putting you at greater risk for HIV and other sexually transmitted diseases (STDs).

Can you overdose or die if you use prescription drugs?

Yes, more than half of the drug overdose deaths in the United States each year are caused by prescription drug misuse. Deaths from overdoses of prescription drugs have been increasing since the early 1990s, largely due to increases in misuse of prescription opioid pain relievers. More than 29,700 people died from a prescription drug overdose in 2015, with alarming increases among young people ages 15 to 24. Learn more about <u>drug overdoses in youth</u>.

Mixing different types of prescription drugs can be particularly dangerous. For example, benzodiazepines interact with opioids and increase the risk of overdose. Also, combining opioids (pain relievers) with alcohol can make breathing problems worse and can lead to death.

¹ Centers for Disease Control and Prevention, National Center for Health Statistics. Underlying Cause of Death 1999-2015 on CDC WONDER Online Database, released 2016. Available at http://wonder.cdc.gov.

Are prescription drugs addictive?

Yes, prescription drugs that effect the brain, including opioid pain relievers, stimulants, and depressants, can cause physical dependence that could lead to addiction. Medications that affect the brain can change the way it works—especially when they are taken over an extended period of time or with escalating doses. They can change the reward system, making it harder

for a person to feel good without the drug and possibly leading to intense cravings, which make it hard to stop using.

This dependence on the drug happens because the brain and body adapt to having drugs in the system for awhile. A person may need larger doses of the drug to get the same initial effects. This is known as "tolerance." When drug use is stopped, uncomfortable withdrawal symptoms can occur. When people continue to use the drug despite a range of negative consequences, it is considered an addiction. When a person is addicted to a drug, finding and using that drug can begin to feel like the most important thing —more important than family, friends, school, sports, or health.

Carefully following the doctor's instructions for taking a medication can make it less likely that someone will develop dependence or addiction, because the medication is prescribed in amounts and forms that are considered appropriate for that person. However, dependence and addiction are still potential risks when taking certain types of prescription drugs. These risks should be carefully weighed against the benefits of the medication and patients should communicate any issues or concerns to their doctor right away.

Other kinds of medications that do not act in the brain, such as antibiotics used to treat infections, are not addictive.

How many teens use prescription drugs?

Prescription and over-the-counter drugs are the most commonly misused substances by Americans age 14 and older, after marijuana and alcohol.

Below is a chart showing the percentage of teens who misuse prescription drugs.

Monitoring the Future Study: Trends in Prevalence of Any Prescription Drug for 12th Graders; 2013 - 2016 (in percent)*

Drug	Time Period	12th Graders				
		2013	2014	2015	2016	
Any Prescription Drug	Lifetime	21.50	[19.90]	18.30	18.00	

Drug	Time Period	12th Graders				
		2013	2014	2015	2016	
	Past Year	15.00	[13.90]	12.90	12.00	
	Past Month	7.00	6.40	5.90	5.40	

^{*} Data in brackets indicate statistically significant change from the previous year.

For the most recent statistics on teen drug use, see results from <u>NIDA's Monitoring the Future</u> <u>study</u>.

What should I do if someone I know needs help?

If you or a friend are in crisis and need to speak with someone now, please call:

• National Suicide Prevention Lifeline at 1-800-273-TALK (they don't just talk about suicide—they cover a lot of issues and will help put you in touch with someone close by).

If you need information on treatment and where you can find it, you can call:

• Substance Abuse Treatment Facility Locator at 1-800-662-HELP or visit www.findtreatment.samhsa.gov.

For more information on how to help a friend or loved one, visit our <u>Have a Drug Problem</u>, <u>Need Help? page</u>.

Where can I get more information?

Drug Facts

NIDA:

- Commonly Abused Prescription Drugs Chart
- <u>DrugFacts: Prescription and Over-the-Counter Medications</u>

• Research Report Series: Misuse of Prescription Drugs

Statistics and Trends

NIDA:

• DrugFacts: High School and Youth Trends

Monitoring the Future (University of Michigan):

• Monitoring the Future

Substance Abuse and Mental Health Services Administration:

• National Survey on Drug Use and Health

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