

# Teaching Teens the Science of Addiction

## Posts From the Sara Bellum Blog

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# Teaching Teens the Science of Addiction

## Posts From the Sara Bellum Blog

### Introduction

The purpose of the Sara Bellum Blog teaching guide “Teaching Teens the Science of Addiction” is to provide educators with a series of reliable blog posts that can complement health curricula by providing relevant and up-to-date information on the ever-changing landscape of drug abuse and addiction. The posts are written for teens in middle and high school.

You will find seven blog posts that address common questions teens have submitted to the National Institute on Drug Abuse (NIDA) about drug abuse, such as “Why do people use drugs?”

Discussion questions and related resources accompany each post. You’ll also find ideas for how to use the posts with teens and additional resources.

### The Sara Bellum Blog

A team of NIDA scientists and science writers created the Sara Bellum Blog in 2009 to connect teens in middle and high school with the latest scientific research and news about drug abuse and addiction. The Sara Bellum Blog discusses a wide range of topics related to drug abuse and addiction, including facts about drugs of abuse, peer pressure, and mental health.

### About the National Institute on Drug Abuse

The National Institute on Drug Abuse (NIDA) is a part of the National Institutes of Health, U.S. Department of Health and Human Services. NIDA supports most of the world’s research on how drug abuse impacts the brain and body, including how it leads to addiction. In addition to supporting and conducting research, NIDA disseminates its findings through science-based materials such as Web sites, publications, and curricula supplements.

### How To Use This Teaching Guide

You can use the blog posts in this guide as discussion starters, handouts, or take-home assignments for teens. The posts focus on a common theme—drug abuse—and can be used as a group or individually.

Following are several ideas for how to incorporate Sara Bellum Blog posts into your drug abuse prevention lessons:

- **Small Group Discussions:** In small groups, have students read one or several posts and ask the groups to discuss the information in the post(s). Provide students with the discussion questions for the post(s) to help guide their conversations. Ask each group to present to the whole class what new information they learned, what they thought was most interesting, and why they think the information is important.

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- **Discussion Launch:** Review one post with the whole class and then facilitate a discussion about drug abuse and addiction using the discussion questions provided for that post.
- **Reaction Discussion:** Read one post aloud to the class and ask students to share their reactions to the information. Does anything change how they view drugs or drug abuse? How might the information in the post be useful?
- **Supplemental Handouts:** Print individual posts to give as handouts that provide supplemental information about specific topics related to drug abuse.
- **Writing Prompt:** Ask students to read one post and then write about what they learned and how the information relates to their lives. Or, ask students to write an answer to one of the discussion questions.
- **Blog Writing Activity:** Ask students to read several posts from the guide and then write their own blog post.
  - **Facts Post:** Ask students to write a blog post that shares the facts they learned from the Sara Bellum Blog posts they read.
  - **Personal Experience Post:** Ask students to write a post in the style of the Sara Bellum Blog that shares a personal experience with drugs, drug abuse, or addiction in their schools or communities.
  - **Discussion Post:** Ask students to write a post that responds to one of the discussion questions provided with each post.
- **Presentation Project:** Ask students to read a post and develop a short presentation about the topic and why it is important.
- **Social Media Activities:** Ask students to read a post and then write Facebook or Twitter messages using the information they learned. If your class or school has its own social media channels, you could share the Facebook posts and tweets there. Asking students to summarize the posts in the short blurbs required for social media could be an interesting paraphrasing exercise.
- **Comment:** Ask students to read one post and then write a response to that post. They could even publish their comment on the original post by going to the URL provided for each post.
- **Homework Discussion Questions:** Assign one or several posts as homework, but do not include the discussion questions. Ask students to read the post(s) and develop a list of their own discussion questions for each.

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- **Poster Project:** Ask students to read a post and develop a poster or cartoon that shows the key facts and points of that post.
- **Multimedia Project:** Ask students to read several posts and develop a storyboard (scene outline) and script for a podcast, public service announcement (PSA), or video that shares the information they learned. If time allows, teens could break into groups and record the podcasts, PSAs, or videos they developed.

## Sara Bellum Blog Posts and Discussion Questions

The posts in this guide discuss drug abuse and addiction generally by exploring how many teens abuse drugs, why people may abuse drugs, and how drugs are addictive. Each post is followed by discussion questions and related resources.

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## Posts From the Sara Bellum Blog

### So... Why Do People Like Drugs?

By Dr. Joe Frascella, Director of the Division of Clinical Neuroscience and Behavioral Research at the National Institute on Drug Abuse

Is there something magical about drugs and alcohol with us humans? So what's our fascination and why do some of us like them so much?! Actually, before we try and answer that one, let me just say: we are not alone. Some of the drugs we use, abuse, and become addicted to today were actually "discovered" by animals first.



For example, you know why we have coffee today? Well, the "legend of the dancing goats" says that coffee beans were first discovered in a field in Ethiopia by a goat herder who noticed that his goats were acting weird sometimes, running around and dancing wildly. He couldn't figure out why and so decided to study them. He saw them eating small red berries on a certain shrub found in the area—turns out they were coffee plants. After eating the berries with the coffee beans inside, the goats started their "dancing." Legend also has it that the goat herder also started eating the berries and dancing with them!

Plenty of similar stories and observations have been made of other animals that seem to get "high" from naturally occurring drugs or fermented fruits. Cats are attracted to the valerian plant and to catnip, which seems to give them extreme pleasure. In parts of Africa, the marula fruit ripens, and animals—from monkeys to elephants—are attracted to the overripe and fermenting fruits that make them act "funny." Birds have been seen sitting on smoking tree trunks after bush fires and seem to be intoxicated—they get dizzy and fall off the smoldering trunk only to get up and do it over and over.



Back to our question...so why do we (or at least some of us) and our animal counterparts like these natural-occurring substances and synthetic or man-made drugs? The answer is simple...*blame it on our brains!* We have evolved a brain that allows us to see, hear, taste, move, think, etc., and also to repeat things that feel good. That happens because a part of our brain sends out feel-good signals when we do something we enjoy, like eating good food, playing a video game, kicking a goal in soccer, listening to our favorite music, or going upside-down on a roller coaster. The system that says to us: "hey, that was good, do it again!" is called the "reward system."

Turns out that alcohol and drugs affect this system really well; they are effective at going right to our brain's "reward system" and putting it into high gear. This very effective stimulation of the reward

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system is why many people can become addicted to drugs, since feeling good is what drives much of our behavior. Drugs, in a sense, trick the system that has evolved for helping us in our world and instead can turn our world upside-down.

As a scientist and Division Director at the National Institute on Drug Abuse, I am committed to learning more about how drugs exert their effects in the brain so that we can come up with better ways to prevent young people from getting “tricked” by drugs and sliding into addiction without even realizing it.

*As Director of the Division of Clinical Neuroscience and Behavioral Research at the National Institute on Drug Abuse, Dr. Joe Frascella heads up a program that supports studies in humans to advance our understanding of brain and behavior in drug abuse and addiction. Studies are mainly on neuroscience, adolescent development, and treatment, with a goal of translating research results into real-world use.*

Find the original blog post at <http://teens.drugabuse.gov/blog/post/so-why-do-people-drugs>.

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### Discussion Questions: So...Why Do People Like Drugs?

1. Are humans the only species that seems to be affected by drugs and other substances that interact with brain chemicals?
2. What part(s) of the brain do drugs affect?
3. What makes drugs seem appealing?

### Related Resources

- *Word of the Day: Euphoria*, Sara Bellum Blog:  
<http://teens.drugabuse.gov/blog/post/word-day-euphoria>
- *Word of the Day: Brain Reward System*, Sara Bellum Blog:  
<http://teens.drugabuse.gov/blog/post/word-day-brain-reward-system>
- *Word of the Day: Dopamine*, Sara Bellum Blog:  
<http://teens.drugabuse.gov/blog/post/word-day-dopamine>
- *Drug Facts: Addiction and the Brain*, NIDA for Teens:  
<http://teens.drugabuse.gov/drug-facts/brain-and-addiction>
- *Drugs, Brains, and Behavior: The Science of Addiction*, National Institute on Drug Abuse:  
<http://www.drugabuse.gov/publications/science-addiction>

# Teaching Teens the Science of Addiction

## Posts From the Sara Bellum Blog

### The Different Angles of Addiction

By The Sara Bellum Blog Team

You may think you know what addiction is—lots of people have many different opinions about addiction and different ways of defining it. Here are some *myths* you may have heard:

- Getting over addiction to drugs is a choice.
- In order for treatment to work, the person has to hit “rock bottom.”
- People have to *choose* to get treatment or it won’t be effective, such as when a judge sends a person to treatment facility instead of jail.



The truth is that addiction is a complex brain disease that scientists are still figuring out. For instance, one person may use a drug once or many times and nothing bad happens, while others may overdose with the first use. Some people use drugs regularly and never become addicted, while others try drugs once or twice and do become addicted. There is no way of knowing in advance how a person may react to these dangerous substances. Whether or how quickly addiction takes hold in individuals depends on many factors, including:

- **Genes:** Research shows that some people’s genes may leave them more susceptible to addiction than other people’s genes.
- **Environment:** Kids who are exposed to drug use in their families or neighborhoods are at greater risk of engaging in drug abuse themselves.
- **Age at first use:** The younger a person uses drugs, the more vulnerable he or she is to addiction in adulthood. Since the brain continues to develop well into a person’s 20s, using drugs in the teen years can set a person up for later drug problems.

What scientists know for sure is that many drugs “turn on” the brain’s reward circuit, which is part of the limbic system. The person then learns to associate the drug with pleasure and starts to crave it more and more, leading to compulsive drug use and often to addiction. In an addicted person, the brain changes in ways that cause compulsive drug seeking and use, despite negative consequences, so even if they want to quit, they can’t without treatment and support. That’s why addiction is considered a brain disease. Other activities in life also activate the brain’s reward circuit and can cause “driven” behaviors, such as compulsive overeating or video game playing. However, scientists are still trying to figure out why this happens in non-drug contexts—it may be connected to dopamine levels in the brain.

Find the original blog post at <http://teens.drugabuse.gov/blog/post/different-angles-addiction>.

# Teaching Teens the Science of Addiction

## Posts From the Sara Bellum Blog

### Discussion Questions: The Different Angles of Addiction

1. What is addiction?
2. What are three factors that influence whether or not someone will become addicted to drugs?
3. Are drugs the only thing that activate the brain's reward system?

### Related Resources

- *Word of the Day: Limbic System*, Sara Bellum Blog:  
<http://teens.drugabuse.gov/blog/post/word-day-limbic-system>
- *Are Video Games Addictive?* Sara Bellum Blog:  
<http://teens.drugabuse.gov/blog/post/are-video-games-addictive>
- *Word of the Day: Dopamine*, Sara Bellum Blog:  
<http://teens.drugabuse.gov/blog/post/word-day-dopamine>
- *Drug Facts: Addiction and the Brain*, NIDA for Teens:  
<http://teens.drugabuse.gov/drug-facts/brain-and-addiction>
- *Drugs, Brains, and Behavior: The Science of Addiction*, National Institute on Drug Abuse:  
<http://www.drugabuse.gov/publications/science-addiction>

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## Posts From the Sara Bellum Blog

### Why Do People Take Drugs?

By The Sara Bellum Blog Team



**Why do people take drugs?** While the specific answer may differ from person to person, some common reasons are that people think they will feel good, forget their problems, perform better, or fit in.

Drugs may have these effects at first, but they do not last, at least not like the long-term negative consequences can. Here are some “reality checks” on common reasons people have for doing drugs:

**“Drugs help me feel good.”** Most abused drugs produce intense feelings of pleasure. This initial sensation of euphoria is followed by other effects, which differ with the type of drug used. For example, with stimulants such as cocaine, the “high” is followed by feelings of power, self-confidence, and increased energy. In contrast, the euphoria caused by opiates such as heroin is followed by feelings of relaxation and satisfaction.

**Reality check:** While a drug-induced high may temporarily boost your mood, the effect doesn’t last long. Before you know it, the same old worries return, and, in fact, the after-effects of the drug may leave you with additional physical or emotional symptoms. Headaches, nausea, and feeling “down” are common side effects for many people. Withdrawal can be quite painful—physically and mentally.

**“Drugs help me feel better.”** Some people who suffer from social anxiety, stress-related disorders, and depression start abusing drugs in an attempt to lessen feelings of distress. Stress can play a major role in beginning drug use, continuing drug abuse, or in relapsing to drug use for people recovering from addiction.

**Reality check:** Some prescription medications can help lessen anxiety- or stress-related problems for a person suffering from a mental health problem that has been diagnosed by a doctor. These medications should only be taken as prescribed by a doctor and used under a doctor’s care. The “high” caused by illicit drugs like marijuana or cocaine may be just a temporary mask over your problems and will not make you feel better in the long run. In fact, illicit drugs may cause you even more stress, anxiety, and problems.

**“Drugs help me perform better.”** The increasing pressure that some people feel to chemically enhance or improve their athletic abilities or performance in school can prompt them to start or continue drug abuse.

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**Reality check:** So-called “performance enhancing” drugs, like steroids, actually have serious side effects. Men may develop breasts, and women may acquire some male characteristics like a deeper voice and increased body hair. Some people may abuse stimulants to increase their alertness, but dangerous side effects like irregular heartbeat, high body temperatures, and the potential for heart failure or seizures make this a bad bargain.

**“Everyone’s doing it.”** Teens are particularly vulnerable to trying drugs because of the strong influence of peer pressure; they are more likely, for example, to take part in risky behaviors because they assume that their peers are also doing it.

**Reality check:** The annual Monitoring the Future survey, which measures drug abuse by 8th, 10th, and 12th graders and their attitudes towards drugs, shows that nowhere close to a majority of teens are abusing drugs.

The bottom line?— knowing more about the specific negative effects of drugs on your brain and body can help you think twice before you act.

Find the original blog post at <http://teens.drugabuse.gov/blog/post/real-teens-ask-why-take-drugs>.

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## Posts From the Sara Bellum Blog

### Discussion Questions: Why Do People Take Drugs?

1. Do the effects of drugs actually help you feel good or overcome problems in the long run? Why or why not?
2. What are some side effects of performance-enhancing drugs like steroids?
3. Do the majority of teens use drugs?

### Related Resources

- *Word of the Day: Euphoria*, Sara Bellum Blog:  
<http://teens.drugabuse.gov/blog/post/word-day-euphoria>
- *How Does Cocaine Work? It's Partly in Your Genes*, Sara Bellum Blog:  
<http://teens.drugabuse.gov/blog/post/how-does-cocaine-work-its-partly-your-genes>
- *Real Teens Ask About Effects of Heroin*, Sara Bellum Blog:  
<http://teens.drugabuse.gov/blog/post/real-teens-ask-about-effects-heroin>
- *Word of the Day: Withdrawal*, Sara Bellum Blog:  
<http://teens.drugabuse.gov/blog/post/word-day-withdrawal>
- *More Information About Prescription Drug Abuse*, NIDA's PEERx Program:  
<http://teens.drugabuse.gov/our-projects/peerx>
- *Monitoring the Future*, National Institute on Drug Abuse and University of Michigan:  
<http://www.monitoringthefuture.org>

# Teaching Teens the Science of Addiction

## Posts From the Sara Bellum Blog

### How Many Teens Actually Smoke, Drink, or Do Drugs?

By The Sara Bellum Blog Team



Nora D. Volkow, M.D., Director of NIDA, announcing the release of the 2011 Monitoring the Future survey results.

It's natural to be curious about your peers—especially when it comes to things that we know can be dangerous, like alcohol and drug use. You've probably heard rumors of kids drinking beer at a party or may have a friend who smokes cigarettes.

You may wonder *how many* teens actually smoke, drink, or do drugs. It's a question we hear frequently from teens.

In December 2011, NIDA released the 2011 Monitoring the Future study, and it seems that more teens are making better decisions when it comes to smoking and alcohol use, but not so much when it comes to using marijuana and abusing prescription drugs.

Here's a glimpse at the most recent trends in teen drug and alcohol use.

#### Cigarette and Alcohol Use at Historic Low

Teen smoking has declined in all three grades included in the study—grades 8, 10, and 12. Still, almost 19 percent of 12th graders reported current (past-month) cigarette use.

This decline shows that more teens realize the harm smoking does to your body and are making the decision not to start. Also, teens' attitudes about smoking have changed. They increasingly prefer to date nonsmokers and believe smoking to be a dirty habit.

Likewise, among nearly all grades, trends over the past 5 years showed significant decreases in alcohol use—including first-time use, occasional use, daily use, and binge drinking. As with smoking, this decline may be the result of more teens understanding the risk of drinking alcohol and disapproving of this behavior.

#### Marijuana Use Continues To Rise

Unlike cigarettes and alcohol, marijuana use is increasing. Among 12th graders, 36.4 percent reported using marijuana at least once in the past year, up from 31.5 percent 5 years ago. This accompanies a decrease in the number of 12th graders who perceive that smoking marijuana is harmful. For example, only 22.7 percent of high school seniors saw great risk in smoking marijuana occasionally, compared to 25.9 percent 5 years ago.

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Of course, we know the risks: marijuana can affect memory, judgment, and perception, and it can harm a teen's developing brain.

### Prescription Drug Abuse Remains Steady

Prescription drug abuse hasn't changed much since 2010. Abuse of the opioid painkiller Vicodin and the nonmedical use of Adderall and Ritalin, stimulants meant to treat ADHD, remained about the same as last year. Also, the abuse of the opioid painkiller OxyContin remained steady for the past 5 years across all 3 grades surveyed.

To drive this trend downward, NIDA launched PEERx, a prescription drug abuse awareness campaign that gives teens science-based information about the harmful effects of prescription drug abuse on the brain and body.

When teens understand the health risks of abusing drugs, they do it less. So, tell us, how would you convince your peers that marijuana use and prescription drug abuse are harmful?

Find the original blog post at <http://teens.drugabuse.gov/blog/post/how-many-teens-actually-smoke-drink-or-do-drugs>.

# Teaching Teens the Science of Addiction

## Posts From the Sara Bellum Blog

### Discussion Questions: How Many Teens Actually Smoke, Drink, or Do Drugs?

1. How have trends in tobacco and alcohol use among teens changed during recent years?
2. How have teens' perceptions of marijuana changed over the last several years?
3. Do some teens abuse prescription medications?

### Related Resources

- *Perception of Risk: Fewer Teens Believe Marijuana Is Harmful*, Sara Bellum Blog: <http://teens.drugabuse.gov/blog/post/fewer-teens-believe-marijuana-harmful>
- *Drug Facts: Marijuana*, NIDA for Teens: <http://teens.drugabuse.gov/drug-facts/marijuana>
- *Drug Facts: Prescription Drug Abuse*, NIDA for Teens: <http://teens.drugabuse.gov/drug-facts/prescription-drugs>
- *More Information About Prescription Drug Abuse*, NIDA's PEERx Program: <http://teens.drugabuse.gov/our-projects/peerx>
- *Monitoring the Future*, National Institute on Drug Abuse and University of Michigan: <http://www.monitoringthefuture.org>

# Teaching Teens the Science of Addiction

## Posts From the Sara Bellum Blog

### Which Drug Is Most Addictive?

By The Sara Bellum Blog Team



Image Courtesy of CRASH: candy

Let's start with this basic truth—although some drugs are stronger or more powerful than others, all drugs are potentially dangerous. Each has a way of tapping into your brain's pleasure circuitry and altering your physical or emotional state. And this means—*Any of them can lead to abuse and addiction.*

But what makes one drug more addictive than another has to do with a person's environment (like stress, or friends who use drugs), the type of drug, and how much it's used—even genes have a role in whether or not someone becomes addicted. Scientists have already identified a particular gene that makes some people more likely to become addicted to nicotine, the drug found in cigarettes and other tobacco products. All these factors affect the individual person in different ways, which is why everyone's experience with drug addiction is unique.

Even so, some of the most intoxicating drugs out there will take fewer doses over a shorter period of time for many people to become addicted. This includes cocaine, methamphetamine, and heroin. And a high dose of a weaker drug taken more often over the same period of time could lead to addiction for some people as well. It's a hard call to make in advance.

Find the original blog post at <http://teens.drugabuse.gov/blog/post/real-teens-ask-which-drug-most-addictive>.

# Teaching Teens the Science of Addiction

## Posts From the Sara Bellum Blog

### Discussion Questions: Which Drug Is Most Addictive?

1. Is it clear which drug is the most addictive?
2. What factors influence whether someone may become addicted to a drug or not?
3. Comparing stronger drugs to weaker drugs, what is a possible difference in their effects based on frequency of use and dose?

### Related Resources

- *How Does Cocaine Work? It's Partly in Your Genes*, Sara Bellum Blog:  
<http://teens.drugabuse.gov/blog/post/how-does-cocaine-work-its-partly-your-genes>
- *Real Teens Ask: Is Addiction Hereditary?* Sara Bellum Blog:  
<http://teens.drugabuse.gov/blog/post/real-teens-ask-addiction-hereditary>
- *Smoking: How It Primes the Brain for Addiction*, Sara Bellum Blog:  
<http://teens.drugabuse.gov/blog/post/smoking-how-it-primers-brain-addiction>
- *Drug Facts*, NIDA for Teens: <http://teens.drugabuse.gov/drug-facts>
- *Drug Facts: Addiction and the Brain*, NIDA for Teens:  
<http://teens.drugabuse.gov/drug-facts/brain-and-addiction>
- *Drugs, Brains, and Behavior: The Science of Addiction*, National Institute on Drug Abuse:  
<http://www.drugabuse.gov/publications/science-addiction>

# Teaching Teens the Science of Addiction

## Posts From the Sara Bellum Blog

### Is Addiction Hereditary?

By The Sara Bellum Blog Team



#### Are you more likely to do drugs if someone in your family does?

The short answer is yes, because the risk of developing drug and alcohol problems is higher in children whose parents abuse alcohol or drugs—but it is NOT a guarantee.

Research shows that children with parents who abuse alcohol or drugs are more likely to try alcohol or drugs and develop alcoholism or drug addiction.

Why?

- Children whose parents abuse alcohol and drugs are more likely to have behavioral problems, which increases the risk of trying alcohol or drugs. They are also exposed to more opportunities to try these substances.
- Plus, children of parents who abuse drugs may inherit a genetic predisposition (or greater likelihood) for addiction—having an “addictive personality,” so to speak.

Of course, most children of parents who abuse alcohol or drugs do **not** develop alcoholism or addiction themselves, so your genes do not write your destiny to become addicted to drugs. BUT—to avoid that risk entirely, it’s best not to start, and if you’ve already tried drugs or alcohol, stop now.

#### Help Is Out There

When someone has a drug problem, it’s not always easy to know what to do. If someone you know is using drugs, encourage him or her to talk to a parent, school guidance counselor, or other trusted adult. Confidential resources are out there, like the Treatment Referral Helpline (1-800-662-HELP) offered by the Substance Abuse and Mental Health Services Administration, which refers callers to particular treatment facilities, support groups, and other local organizations. You can also locate substance abuse treatment centers in your state by going to <http://www.samhsa.gov/treatment>.

Find the original blog post at <http://teens.drugabuse.gov/blog/post/real-teens-ask-addiction-hereditary>.

# Teaching Teens the Science of Addiction

## Posts From the Sara Bellum Blog

### Discussion Questions: Is Addiction Hereditary?

1. What are two reasons children of parents who abuse drugs or alcohol may be more likely to become addicted to drugs or alcohol?
2. Do a person's genes guarantee that someone will become addicted to drugs?
3. What is one way to avoid becoming addicted to drugs?

### Related Resources

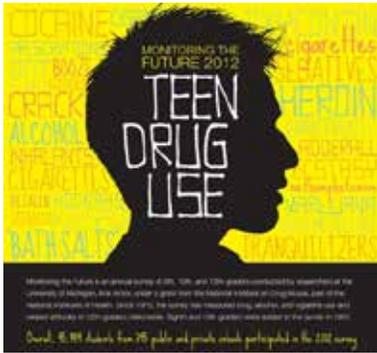
- *How Does Cocaine Work? It's Partly in Your Genes*, Sara Bellum Blog:  
<http://teens.drugabuse.gov/blog/post/how-does-cocaine-work-its-partly-your-genes>
- *Smoking: How It Primes the Brain for Addiction*, Sara Bellum Blog:  
<http://teens.drugabuse.gov/blog/post/smoking-how-it-primers-brain-addiction>
- *Drug Facts*, NIDA for Teens: <http://teens.drugabuse.gov/drug-facts>
- *Drug Facts: Addiction and the Brain*, NIDA for Teens:  
<http://teens.drugabuse.gov/drug-facts/brain-and-addiction>
- *Drugs, Brains, and Behavior: The Science of Addiction*, National Institute on Drug Abuse:  
<http://www.drugabuse.gov/publications/science-addiction>

# Teaching Teens the Science of Addiction

## Posts From the Sara Bellum Blog

### Perception of Risk: Fewer Teens Believe Marijuana Is Harmful

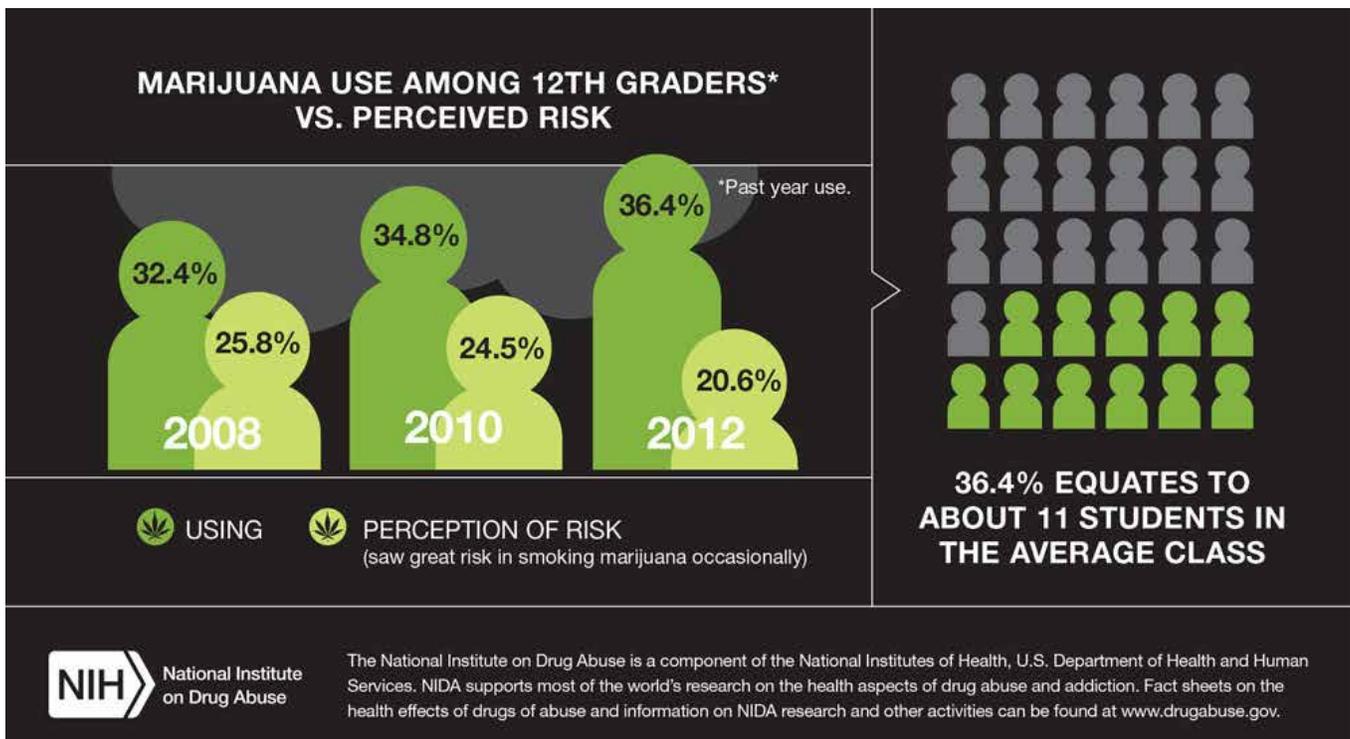
By The Sara Bellum Blog Team



Knowing the health risks that come with using or abusing drugs convinces most teens (and adults) to stay away from them. But what if you don't think certain drugs are unsafe?

In December 2012, the National Institute on Drug Abuse released the results of the 2012 Monitoring the Future (MTF) study (involving 8th, 10th, and 12th graders). The findings show that fewer teens believe abusing marijuana and Adderall is bad for their health. This belief is contributing to higher rates of abuse of these drugs.

#### Marijuana



Over the last 5 years, current (past-month) marijuana use has gone up significantly among 10th and 12th graders. In fact, current marijuana use among high school seniors is at its highest point since the late 1990s. Daily marijuana use has climbed significantly across all three grades. The study also found that fewer teens now believe using marijuana is harmful.

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However, the science shows otherwise. People who smoke a lot of pot risk injuring their lungs with the chemicals found in the smoke, and may also experience depression and anxiety. New research has found smoking marijuana heavily in your teen years and continuing into adulthood can actually lower your IQ!

### **Adderall**

Also in the 2012 MTF study, 12th graders reported increased nonmedical use of the prescription stimulant Adderall—commonly prescribed to people with ADHD. As with marijuana, fewer teens perceive that abusing Adderall is risky. If that trend continues, Adderall abuse will probably continue to increase as well.

Abusing a stimulant medication like Adderall may increase blood pressure, heart rate, and body temperature; decrease appetite and sleep; and cause feelings of hostility and paranoia.

### **Perception of Risk**

Studies have found that when teens think a drug can be harmful, they are less likely to abuse it. In the case of marijuana and Adderall, it appears that some teens don't see the risk.

Other notable findings from the 2012 MTF study:

- Most of the top drugs abused by 12th graders are legal substances, like alcohol, tobacco, over-the-counter drugs, and prescription drugs.
- Abuse of synthetic marijuana—K2 or Spice—remained stable in 2012.
- Most teens who abuse prescription drugs get them from family and friends.
- Alcohol use and cigarette smoking are steadily declining.

Find the original blog post at <http://teens.drugabuse.gov/blog/post/fewer-teens-believe-marijuana-harmful>.

# Teaching Teens the Science of Addiction

## Posts From the Sara Bellum Blog

### Discussion Questions: Perception of Risk: Fewer Teens Believe Marijuana Is Harmful

1. How do teens' perceptions of a drug's danger affect the likelihood that they will abuse that drug?
2. Abuse of which drugs increased among teens in 2012? Abuse of which drugs decreased?
3. What are some of the key findings from the MTF 2012 study?

### Related Resources

- *Can Smoking Marijuana Actually Lower Your IQ?* Sara Bellum Blog: <http://teens.drugabuse.gov/blog/post/can-smoking-marijuana-actually-lower-your-iq>
- *Prescription Stimulants Affect People With ADHD Differently*, Sara Bellum Blog: <http://teens.drugabuse.gov/blog/post/prescription-stimulants-affect-people-adhd-differently>
- *Drug Facts: Marijuana*, NIDA for Teens: <http://teens.drugabuse.gov/drug-facts/marijuana>
- *Drug Facts: Prescription Drug Abuse*, NIDA for Teens: <http://teens.drugabuse.gov/drug-facts/prescription-drugs>
- *More Information About Prescription Drug Abuse*, NIDA's PEERx Program: <http://teens.drugabuse.gov/our-projects/peerx>
- *Monitoring the Future*, National Institute on Drug Abuse and University of Michigan: <http://www.monitoringthefuture.org>
- *Perceptions of Risk from Substance Use among Adolescents*, National Survey on Drug Use and Health Report: <http://www.samhsa.gov/data/2k9/158/158RiskPerceptions.htm>

# Teaching Teens the Science of Addiction

## Posts From the Sara Bellum Blog

### More Resources

#### Web Sites and Online Tools

- Sara Bellum Blog: <http://teens.drugabuse.gov/blog>
- NIDA for Teens Web Site: <http://teens.drugabuse.gov>
  - Drug Facts: <http://teens.drugabuse.gov/drug-facts>
  - Test Your Knowledge (online drug facts quizzes): <http://teens.drugabuse.gov/activities/test-your-knowledge>
- NIDA's PEERx Program (teen prescription drug abuse prevention materials): <http://teens.drugabuse.gov/our-projects/peerx>
  - Choose Your Path Videos (where the viewer can choose what the characters do): <http://teens.drugabuse.gov/our-projects/peerx/choose-your-path>
- Easy-to-Read Drug Facts: <http://easyread.drugabuse.gov>
- Heads Up: Drugs and Your Body (lesson plans and materials): <http://headsup.scholastic.com>
- National Institute on Drug Abuse Home Page: <http://www.drugabuse.gov>
- Family Checkup: Positive Parenting Prevents Drug Abuse: <http://www.drugabuse.gov/family-checkup>

#### Publications

- Drugs, Brains, and Behavior: The Science of Addiction: <http://www.drugabuse.gov/publications/science-addiction>
- Preventing Drug Abuse Among Children and Adolescents: <http://www.drugabuse.gov/publications/preventing-drug-abuse-among-children-adolescents>
- DrugFacts Fact Sheets: <http://www.drugabuse.gov/publications/term/160/DrugFacts>