

JOHNNY'S AMBASSADORS

**The REAL DEAL About the Harms
to Youth Who Use Today's
High-THC Marijuana:
Brain Development, Mental Illness,
and Suicide**

Brought to you by Johnny's Ambassadors

Written by Laura Stack, Founder & CEO

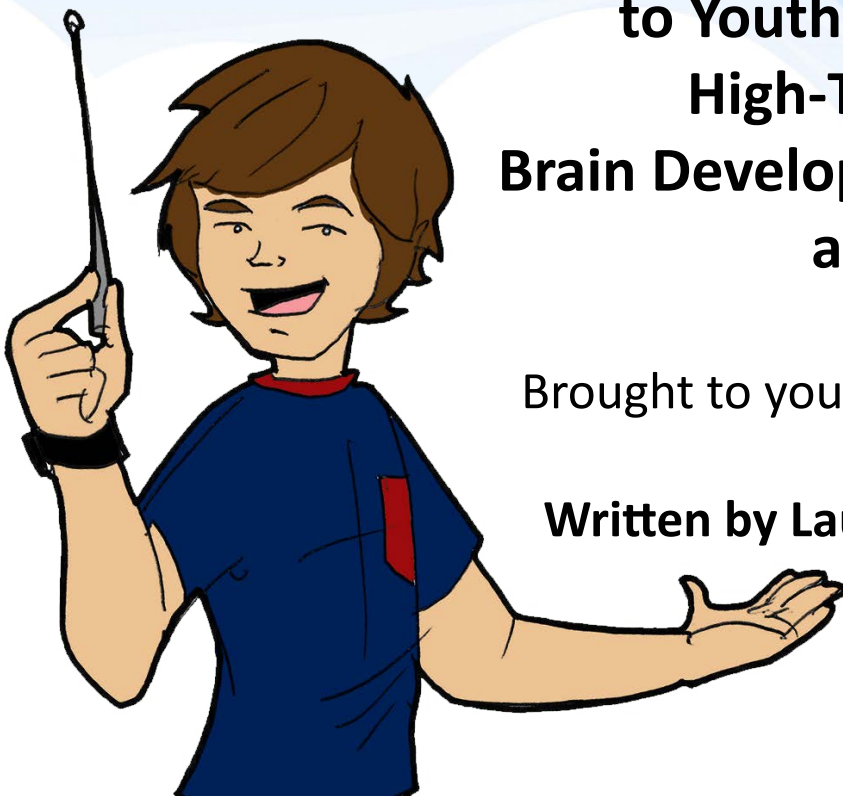


TABLE of CONTENTS



Who Is Johnny's Mom	3
Johnny Is Back as a Cartoon to Explain to His Ambassadors What Dabbing Is	4
Dabbing and Teen Mental Health	7
Talking to Your Kids About Drugs:	
Part I – Introduction	10
Part II – Young Children	13
Part III – Tweens	16
Part IV – Teens	19
Is Marijuana Addictive?	22
Johnny's Five Values:	
Part I, Altruism	25
Part II, Patience	28
Part III, Conviction	31
Part IV, Enthusiasm!	34
Part V, Gratitude	36
What Are the Types and Potencies of Modern Marijuana?	40
The State of THC in Colorado Teens' Marijuana Use, 2019	43
Fact vs. Fiction: Can Marijuana Kill You?	46
How Does Marijuana Influence Adolescent Brain Development?	49
What Symptoms Do Adolescents Try to Treat with Marijuana, And Does It Help?	52
Can Marijuana Use Lead to Suicidal Ideation in Some Adolescents?	54
Top Ten Teen Toking Tip-Offs	59
Is Marijuana Medicine?	62
Adolescent Marijuana Use in 2019: Results from the National Survey on Drug Use and Health (NSDUH) . . .	65
Marijuana Legalization: the SAM Report for 2020.	68
Marijuana and the Results of the 2019 YRBSS Survey.	71

Who is Johnny's Mom?



Laura Stack is Johnny Stack's mom, and she is his greatest Ambassador. Laura Stack is better known by her professional moniker, The Productivity Pro®. She is a Hall-of-Fame Speaker and corporate spokesperson for many major brands. Laura is a bestselling author of eight books on productivity and performance topics with a large social media following, and she has given keynote speeches and training seminars to major corporate, association, and government audiences for nearly 30 years.

Nonprofit Founder & CEO

Laura Stack suddenly acquired the undesired wisdom of knowing what it's like to lose one's child. Soon after Johnny died, Laura filed for and received 501c3 nonprofit status for Johnny's Ambassadors, Inc., with a mission to educate parents and teens about the dangers of today's high-THC marijuana on the developing adolescent mind. She hopes to help other parents, grandparents, teachers (and frankly all adults with teens in their lives) by honestly and boldly sharing Johnny's story of his high-potency marijuana use and subsequent marijuana-induced psychosis and schizophrenia.

Laura now uses her platform to bring to bring education, awareness, and prevention curriculum to parents and middle/high school students to raise awareness of THC use, mental illness, and suicide. By helping Johnny help others, Laura believes that saving other lives would be best best potential outcome to this great tragedy. She is determined to start a movement to bring teen marijuana use, mental illness, and suicide into the spotlight and get adolescents to #StopDabbing. Laura is now seeking funders to develop their teen online curriculum and has started a weekly webinar series for parents. She lives with her husband in Denver, Colorado and has two surviving adult children, ages 24 and 19.





Johnny Is Back as a Cartoon to Explain to His Ambassadors What Dabbing Is

Please Share with Your Teens

By Laura Stack

I'm delighted to announce that through your contributions to our new nonprofit, Johnny's Ambassadors, JOHNNY has come to life as a cartoon and is ready to do something important in this world! Our mission is to educate parents and teens about the dangers of adolescent substance abuse and help parents have conversations with their children. The name on the cartoon logo is Johnny's own writing. I'm crying as I see this all come together in our first efforts to save other precious young lives.

Through these bi-weekly series of cartoons and articles, Johnny's spirit will live on! Johnny will continue to help his Ambassadors help the adolescents in their lives.

Parents and grandparents, uncles and aunts, teachers and counselors, please share this on your wall and with your teens.

This week is National Substance Abuse Prevention Week through the Substance Abuse and Mental Health Services Administration. Each year around this observance, communities, and organizations across the country come together to raise awareness about the importance of substance use prevention and positive mental health.

So, today we are here to discuss, "What are dabs?" The biggest problem I face in explaining the dangers of today's marijuana, frankly, is other parents. I know because it was me. My attitude was, "Eh, I smoked pot

when I was a teen, and I'm fine. It's no big deal." I didn't have my eye on the ball when Johnny was first starting to do it. What I did not know is that today's marijuana is not the same stuff I smoked when I was a teen.

Have you ever heard of dabbing? No, not the hip-hop dance! That may make you look like you're on drugs, but the dabbing we're talking about can actually scramble your brain. Dabbing involves a dangerous marijuana product: specifically, the concentrated wax popularly called dab. It's made by using, get this, butane to extract the oils in marijuana plant matter, either via the liquid or its fumes. Butane is a solvent. Some producers also use ethanol or propane. You might remember that we typically burn all these chemicals as fuel, and they are poisonous to the human body.

The THC in the marijuana dissolves in the solvent. THC is tetrahydrocannabinol, the chemical in pot that makes people high. Producers press the resulting mush through a filter and dry it out in a dish or tray. This results in an oily wax called Butane Hash Oil consisting of up to 80-90% THC. It looks a lot like ear wax. One dose is a dab.

When you "take a dab," you heat the wax up, usually in a vape-pen, and inhale the vapors to get high. Many advocates, usually in states like Colorado and Nevada where recreational marijuana use is legal, defend "dabbing some wax" as no worse than smoking pot. But they're full of it. It's a LOT worse. And the levels of THC aren't regulated or restricted.

Forget that long-term use of pot may cause lung cancer, despite the "hemp" crowd's claims otherwise; that it definitely drops your IQ by up to eight points permanently; causes chronic bronchitis symptoms; can be a gateway drug to worse stuff; compromises your judgment; and causes paranoia in high doses. Ignore, for now, that long-term pot users who started using in their teens drive more dangerously than non-users, and tend to have a lot more accidents — even when sober.

What you really need to know is, even today's more potent marijuana plants contain no more than 28% THC, while the weed we rolled in the 70's and 80's was about 2 to 5%. Dabs, on the other hand, are more than three times more potent than the strongest marijuana plant. It is no longer a plant. Dabs aren't natural. They are CHEMICALS. Dab is to marijuana like crack is to cocaine. One dab is like smoking 3 to 5 joints at once depending on potency.

And here's what's worse: dabbing has become popular among young people. Many start dabbing by age 14. Most of the time, their parents don't have a clue. You see, dab vapor doesn't have the skunky smell most marijuana smoke has. It may not even have a scent at all. So, kids can do it behind their parents' backs at home. Even if they don't, it doesn't always leave the kind of stink on their clothes and breath tobacco and pot does. And the devices can look like nicotine. They tell you they are "vaping," but they are actually dabbing THC. Vaping = nicotine, and dabbing = marijuana.

Maybe you think they are just being typical teens. Maybe you think it's harmless because it's legal. Maybe you think, "Ah, he's getting straight A's, so it can't be affecting him." Or "That's not my kid, because we go to church." Well, I used to think all of that too.

The wax can be a killer.

Until the young 20's, a young person's brain is still developing, and intoxicants can damage said development.

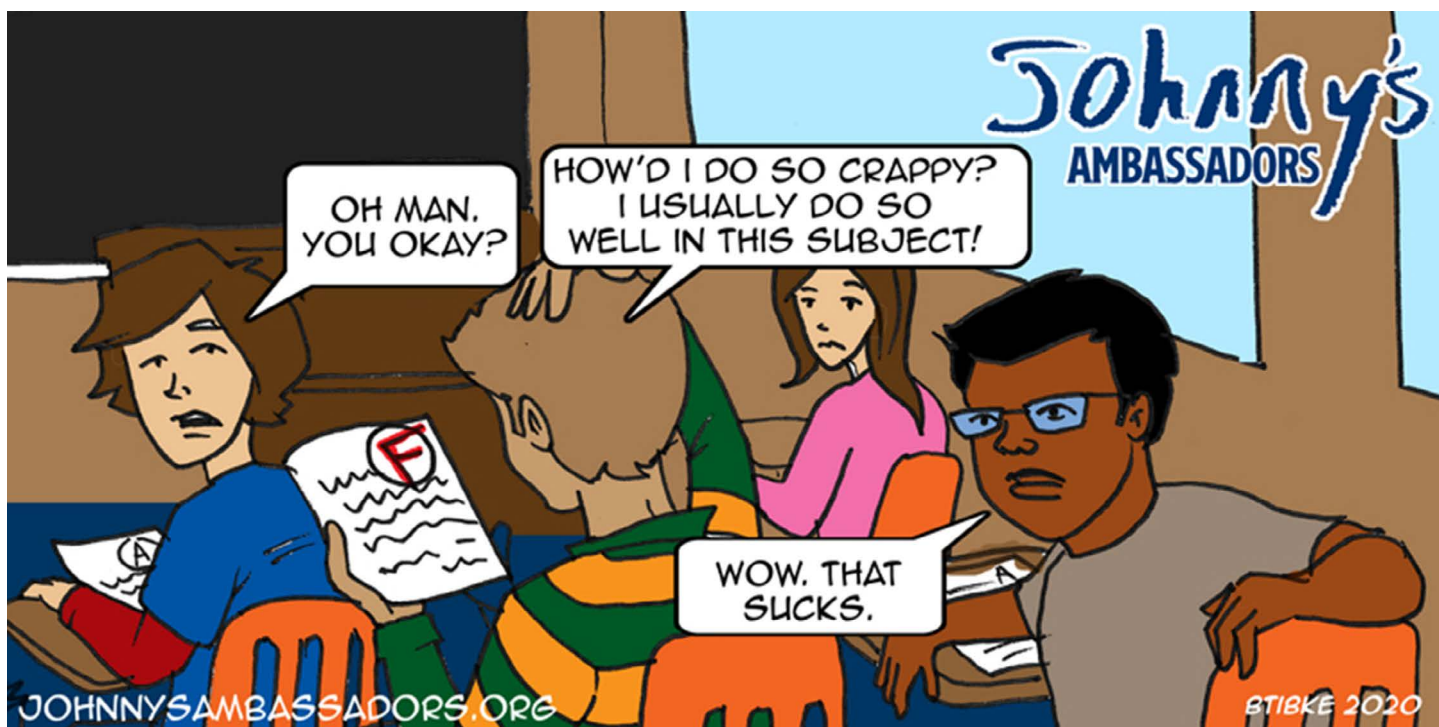
Hence, one reason why 21 is the legal age for alcohol, pot, and cigarettes. Numerous medical studies show dabbing can slow mental development, trigger schizophrenia, and cause depression. These mental illnesses can lead to suicide. Our 19-year-old son, Johnny, took his own life after years of recreational dabbing led to severe persecution delusion (he thought the mob was after him), and he blamed weed for ruining his mind and his life three days before his death.

Compared to heroin or crack, marijuana has a lower addiction rate, but it's still addictive — and dabs are pot on steroids. Even if it's not physically addictive, anecdotal evidence indicates a high rate of psychological addiction among young people. Sure, maybe they could stop without withdrawal symptoms. But they enjoy the high so much they don't want to.

It doesn't take an addiction to dabbing to hurt you. For some who've tried it, it took just one hit to put them in the hospital with life-threatening effects or to cause psychosis. My 51-year-old girlfriend landed in the mental hospital for three weeks from hallucinations caused from hitting a dab pen twice. This doesn't even account for all the damage dabbers do to their families, often accidentally, sometimes fatally.

Please study the research we've added to our website to learn more about dabbing, and please share Johnny's story and talk to your kids about its dangers before it's too late. Please.

We need your help to continue our mission to reduce teen substance abuse, mental health issues, and suicide. Please join Johnny's Ambassadors at www.JohnnysAmbassadors.org/donate. Any amount helps, even \$5! With thanks and love, Laura (Johnny's mom)



Dabbing and Teen Mental Health

By Laura Stack

May is Mental Health Month, which gives parents and grandparents an excellent opportunity to talk to your teens about how smoking marijuana and dabbing (inhaling the vapors of high-THC marijuana extracts) affects their mental health.

People like to joke about stoners still living in their mom's basement at age 29, but the effects of marijuana go way beyond the classic stoner stereotypes. It not only makes you loopy and lazy, it also [hurts your brain](#) in a lot of other ways, because your mind is still forming into your young 20s.

You see, the active ingredient in marijuana, [THC, is a toxin](#). That's why it makes you high. It's also why the formal term for being high is "intoxication." When you inhale 80-90% concentrations of THC of butane hash oil (BHO), you get hit three to five times harder than plain weed, all at once. For example, one edible contains around 10 mg THC, and one hit of wax can contain 600 to 800 mg of THC. This can cause severe damage to the young adult mind.

Some people like to sweep the harmful effects of THC under the rug, and they think, "Ah, it's no big deal. I'm smoked pot when I was a kid, too, and I turned out fine." But TODAY's pot isn't your pot. It's harmful effects are very different.

Detective Kyle Seasock of the Westminster, CA Police Department said in a [recent presentation for at Behavioral Health Services, Inc.](#) on Growing Prevention: Drug Trends, "Butane Hash Oil (Honey Oil, Wax, Shatter) is exponentially more potent than your standard weed. Butane is used to extract the THC, which isn't a natural element that should go into your body. The potency is so different from the olden days. The plants

are on fake light, fake oxygen, and they get steroids, so the THC levels are astronomically high. We have teens having issues with ODs on this, because there's not an exact science on how much THC is in what. The THC is having lasting effects on these kids who are overdosing on THC. It has the opposite effect of the calming nature they expect, and they become very combative. We get calls for THC overdoses (marijuana poisoning) EVERY DAY. It literally causes them to freak out; it's scary. It looks like the old bad LSD overdoses where people just go crazy. It's very similar, but they're kids, mostly late junior high through early college years, ages 13-20. The body is still developing and can't handle the chemical changes the THC provides."

The harsh truth is, young people *aren't ready* to consume pot, especially high-THC concentrates. Their brains can't cope with its demands. You probably won't keel over from one dose... probably. But long-term use of any cannabis, especially when you start young, can:

- Slow your [mental development](#).
- Permanently [lower your IQ](#).
- Kill your [motivation and ambition](#).
- Compromise your [judgment](#).
- Cause [depression](#).
- Make you [paranoid](#) (in high doses).
- [Cause psychotic breaks](#) or psychosis.
- Trigger [schizophrenia](#) if it runs in your family.
- Result in [addiction](#).
- Ruin your mind and your life.
- Cause [suicidal thoughts](#) — and suicide.

That doesn't even cover all the terrible ways your dabbing can hurt your family, friends, and even total strangers. My son, Johnny, who died by suicide on November 20, 2019, had smoked marijuana since age 14 or 15. He started his senior year of high school with a 4.0 GPA, so it was kind of easy to just think, "Oh, he's just fine. Clearly his grades aren't suffering." He ended his senior year by barely graduating with four D's. Frequent dabbing of high-THC marijuana absolutely wrecked him mentally.

Then his continued usage in college caused paranoid schizophrenia, where he thought the mob was after him and the university was an FBI base. When he died, he reported in his journal "the whole world knew everything about him." From the outside, Johnny usually looked normal. He could put up a good front and seemed lucid. But mentally, he was in terrible shape, and he knew it. He told me three days before he died that weed had ruined his mind and his life and how sorry he was about the bad decisions he'd made.

Please don't ruin an otherwise bright mind and future by using marijuana when your brain is still forming! You don't even know you're doing it to yourself if you don't understand how potent today's marijuana is. Putting a gun into the hand of a child doesn't make it his fault if he hurts himself. But now you know. Take this very seriously, please. This stuff is dangerous.

Use Mental Health Month as an opportunity to talk to your teens about today's marijuana and dabbing, especially if they already have mental health issues or experience sudden mood changes. If you'd like to learn

more about Mental Health Month, here's a great toolkit you can download: <https://www.mhanational.org/mental-health-month>

To learn more about how marijuana stunts the mental health of young people, check out the many links on our site at <https://johnnysambassadors.org/mental-illness/>. Please help our non-profit, www.JohnnysAmbassadors.org spread the word about substance abuse, mental health, and suicide prevention in youth. Thank you for being an Ambassador!



Talking to Your Kids About Drugs: Part I, Introduction

By Laura Stack

Continuing our [Mental Health Month](#) theme, I'm introducing a four-part series (this is part 1) on how to talk to your kids about drugs and why drugs are so bad for them from a mental health perspective.

You've probably seen this topic addressed before—maybe even a lot. Why is it so popular? Because (a) it's really important, (b) all kids need this information, and (c) it works! That's why we're tackling it again, and this article is just the start. Over the next few weeks, we'll take separate looks at how you can talk to little kids, tweens, and teens about drugs, using language they'll understand and remember.

You, the Teacher

As parents, you and your partner are your child's first and most important teachers. They pick up just about everything from you, from speech to basic habits to attitude. No one will shape their young minds more. This gives you the opportunity to create a solid foundation for your child's mental health.

When you're there for your kids, they'll always look to you for advice and as a role model. The National Surveys on Drug Use and Health (NSDUH), which are conducted by the Substance Abuse and Mental Health Services Administration (SAMSHA), analyzed data from 2015 through 2018. The researchers focused on adolescents and young adults who had a parent born between 1955 and 1984, who also took part in the survey. The researchers found that kids with mothers who had used marijuana in the past, but not for at least a year, were 30% more likely to use marijuana compared to kids with mothers who never used the drug. Compared with

kids whose mothers never used marijuana, those whose mothers used the drug within the past year were 70% more likely to have started using cannabis. Similarly, kids with father who used marijuana within the past year were 80% more likely to use cannabis compared to kids whose parents never used the drug.

Normalizing marijuana through commercialization and legalization means as a parent, there is no neutral response to marijuana anymore. A neutral or non-response is effectively pro-pot; only a clear rebuff or refute is anti-pot.

So, take advantage of this, and talk with them on the overall badness of smoking marijuana on their mental health, especially today's more potent extract forms. According to the National Institutes of Health, marijuana use is associated with development of suicidal thoughts; cognitive impairment and decreased performance in school/work; increased risk of psychosis and schizophrenia; development of marijuana use disorder (addiction); worsening depression over time; and potential for future substance abuse.

The Basics

No matter how young or old your kids are, keep these things in mind when it comes to talking about substance abuse.

First: don't assume your kids already know the risks. They may not, especially when the media, friends, and movies try to make drug use look cool. They need to know why they should "just say no," or you're going to get pushback. So, get educated yourself by reading the research we've [compiled for you on our website](#).

Second: quantity has a quality of its own. People talk about spending "quality time" with their kids, and that's important. But quantity of time is just as important when it comes to building emotional ties, especially when you talk about your lives together. A [Columbia University study](#) concluded young people are less likely to drink or use drugs when they eat at least five meals together per week with their family. Take advantage of times like this and car rides, etc., to talk.

Third, when talking to your kids about drugs, broaden the subject as they become capable of understanding more to include other types of substance abuse, including smoking, drinking, and harder drugs.

How to Begin

Begin talking with your kids about drugs young (some experts recommend as young as [five years old](#), or [even younger](#)) and repeat the conversations on a regular basis. Make them two-way conversations, not one-sided lectures. Let your kids talk and ask questions. Let them know you're discussing this stuff because you love them and don't want them to get hurt.

If your kids feel they can ask you questions about drugs and can depend on you to give them straight answers without yelling or condemnation, they're more likely to come to you for advice if drugs raise their ugly heads.

It's Like a Booster Shot!

Luckily, most kids don't do drugs. One of the reasons why is that most of the time, kids actually listen to their parents. So, talk to your kids about drugs! Think of it as another type of booster shot, to fight off an especially nasty infection. This is one conversation to have repeatedly as your kids' lives and the world change, in the

hope that what you've said will stick.

My father was a Colonel in the Air Force, so I was familiar with the role of a drill sergeant to teach a recruit something over and over until the recruit does it automatically. Of course, you won't be harsh like a drill instructor, but when you repeat yourself over and over, they will hopefully learn to reject drugs automatically.

Of course, talking doesn't guarantee they will listen. We talked to our children about drugs until we were blue in the face, and yet, Johnny still chose to smoke marijuana and do dabs (high-THC chemical extracts), which later caused his suicide due to the marijuana-induced psychosis and schizophrenia that resulted. Three days before he died, Johnny apologized and acknowledged that I was right all along about the marijuana—that it had ruined his brain and his life. This is not a conversation I want you to have with one of your children.

Come back again next week, when we discuss in detail how to talk to kids under 10 about drugs.



Talking to Your Kids About Drugs: Part II, Young Children

By Laura Stack

Like so many important topics, it's hard to pinpoint the perfect time to have "The Drug Talk" with your kids. You don't need to worry about the tiny tots, since they're rarely out of an adult's supervision. But many experts suggest you do begin talking to your kids about drugs when they are fairly young. According to some, [preschool](#) isn't too soon to start.

Starting early is a great way to make openly discussing drugs and their damaging effects part of your kids' normal life experience. If you've talked to them about drugs for as long as they can remember, it won't seem odd when you bring the topic up again to warn them of a new threat, or when you expand the discussion to include other forms of substance abuse.

Getting Started

Wait until your kids are old enough to understand the basics, but don't put off the first drug talk past age 7 or 8. You want to start while they're still young enough to trust you about everything and will listen. This starts changing soon enough, believe me!

Make your drug talks more than just a series of stern warnings. The conversations should be informal, back-and-forth conversations. Tell your kids why drugs are bad for them, especially that it hurts their brains, which get smarter and smarter as they get older. Drugs keep their brains from getting smarter. Let them ask questions and ask a few yourself until you're sure they understand. You're trying to keep them safe, so let them feel that.

You could begin by talking about simpler things, such as over-the-counter and prescription drugs. Ask your kids what they know about medicine and how it's used. Explain that these drugs, while legal, are so strong that a doctor must decide whether someone needs them, and there are limits on how much should be used, or they can make you feel bad.

Also point out that if they must take medicine if they are sick, they shouldn't let a friend use it; if a friend is taking one, your child shouldn't use theirs, either. And they should NEVER use your prescriptions. Those are meant for grown-ups and might make them very sick, both in the body and the head.

This is also a good time to start discussing alcohol use, and how beer, wine, liquor, etc. are meant only for grown-ups. As before, ask what they know about alcohol, and check to see if they have any questions. Bring up alcohol poisoning, and how it can hurt their bodies and brains.

A little later, bring up cannabis in the same way: by gently asking questions, and answering theirs. This is crucial: as of June 2020, [all but 11 U.S. states](#) have legalized or decriminalized cannabis use, with legislation that may legalize cannabis pending in several other states. Cannabis remains the [most widely used illegal drug](#) in the world, and it may be a gateway to [harder drugs](#).

Worse, new products containing highly concentrated forms of its active ingredient, THC, have made cannabis increasingly dangerous. Make sure your children know extracted cannabis by their common names - marijuana, reefer, pot, grass, weed, bud, wax, dabs, BHO, budder, etc. - so they can avoid it no matter what someone calls it. Stress that while some people think marijuana is a mild drug, today's marijuana is much, much stronger than before and can have [terrible effects](#) on their minds. In language they can understand, it can make you sick in the head, hurt your brain, make you dumb, and make you lazy.

The Risk of Suicide

All illicit drugs and alcohol are poisons, and so are many prescription drugs if abused. Don't hide this from little kids. In simple terms, tell them every single drug can damage body, brain, and soul while they're still growing up. If you use Mr. Yuk stickers for dangerous household substances, tell them they should think about Mr. Yuk when they think about drugs.

Cannabis alone can cause panic and anxiety attacks, [schizophrenia](#), [psychotic episodes](#), [paranoia](#), and deep [depression](#). This may be hard to explain to little kids, so it may be best to just tell them drugs can make you feel very scared, very sad, and very afraid.

All these effects can contribute to [suicidal thoughts](#) that may lead to actual suicide. As I wrote in Part I, my son [Johnny](#) exhibited extreme delusion, paranoia, and symptoms of schizophrenia before he took his own life.

Yes, my husband John and I were proactive and had these conversations with all three of our children, including Johnny. But that doesn't mean you should give up. A child uninformed about drugs is a child in danger.

Social Pressure

As your kids move toward their tween years, peer pressure will become a factor in their decision-making. You can't easily isolate your kids from those things, but you can challenge what they claim. Check in regularly with your kids to see what they're hearing about drugs.

Depending on your state, your kids may be exposed to legalized cannabis in various forms, including edibles like candy, snacks, and ice cream. As a result, it may seem “okay” or “yummy” to them. Make sure they understand that just because something is legal, that doesn’t make it good for them. There is a reason why it’s illegal under 21 – their brains are still growing.

If you’re with your child in a location selling such products, remind them those are for adults only. If you’re watching a movie or TV together and you see a character doing drugs or drinking too much, use it as an opportunity to remind your child of the negative aspects of drug use and that it’s not cool at all.

Growing Up and Moving On

Whatever you do, stay engaged with your child’s life. Know who they are, and who their friends are. Talking to your kids about drugs is a duty that doesn’t end even when they’re off to college.

Next week, check our blog for a discussion about how to talk about to your kids about drugs once they enter that uncertain stage between child and adolescent —the tween years of 10-12. Keep talking to your kids about the dangers of drugs. It may save their lives. That’s our goal here at [Johnny’s Ambassadors](http://JohnnysAmbassadors.org).



Talking to Your Kids About Drugs: Part III, Tweens

By Laura Stack

Back when I was a kid, nobody had ever heard of the term “tween.” Basically, you were a baby, a toddler, a preteen, or an adolescent. Oh, a few people had used similar terms as early as the 1920s, and Tolkien applied it to hobbits in 1954. But as it exists today, it’s a marketing term that first appeared in the late ‘80s and became popular in the ‘90s. It refers specifically to kids who are no longer children, but not yet teenagers — i.e., those from the ages of 9-12.

And boy, ever since it became a marketing category, everyone from fashion designers to drug dealers have heavily marketed to the “tween demographic.”

The Tween Years

During their tweens, kids start to tune in to social differences and the culture around them. Not that little kids don’t fall prey to such things; anyone who’s had a kid see a toy on TV and say, “I want one of those!” knows better. But puberty often starts in the tweens, bringing everything into sharper focus.

Your tween may not have gotten there yet, but plenty of other kids in their cohort have, and *their* behavior will inevitably affect your tween’s behavior. It’s kind of a ripple effect, where the stronger tweens represent the thrown stones that roil the surface of the still pond.

Even if their hormones haven’t begun raging, your kids may experience teasing, bullying, isolation, cliquish

behavior from others, and other blows to their self-esteem. Then there's pressure to fit in, learning about drugs and sex, and various influences from other kids. As a result, your tween may start looking away from you as the guideposts of their lives and widen their circle of role models — some of whom may not be such a great influence.

Something I regret not doing better was monitoring who Johnny was hanging out with. After he died by suicide in Nov. 2019, several of his friends reached out to me. A couple of them apologized to me for being the ring-leader and a bad influence on him by introducing marijuana. So, I can tell you it's more important than ever these days to keep an eye on the crowd your tween children hang out with. Be especially alert to changes in their circles of friends. Allegiances will change; some friends may fade into the background, while others become more prominent. Discuss these changes with them. Know where your kids are when they're not home, and who they're with. Now, knowing what I know in hindsight, I would have insisted on knowing addresses and the parents. It's hard to admit these things now, but it's important to try to help others learn from my mistakes.

It's also time to set strict boundaries and expectations regarding their behavior, including anything drug- or alcohol-related. Admittedly, I wasn't very good at monitoring. It turns out Johnny was leaving the house late at night, so I highly recommend a security system, like the one we now have installed, so you can tell if a door or garage was opened. If you've already been having these talks, your kids know what you expect of them in the regard. When they become teens, there should be no surprises on your expectations of behavior and zero tolerance for alcohol and drugs.

The Hard Stuff

You may be wondering how often to have drug talks with your tweens. I recommend a discussion as you watch a television where drugs are involved (especially one that normalizes marijuana or casually shows people smoking) or when you drive to an event or practice. Just chat with your child about your lives and expectations often—not just when something bad happens. A good time to do this is at the dinner table. Kids who eat with their families five or more times a week are [less likely to abuse drugs or alcohol](#).

By this point, your kids probably understand how dangerous prescription drugs can be when used improperly but remind them occasionally anyway. Expand your discussions to include new threats as they appear. Even if cannabis is not legalized for recreational use in your state, discuss the dangers of cannabis edibles and highly-concentrated THC products like dabs or wax on their minds. [Share the extensive research we've gathered on our website](#).

In middle school, opportunities for drug and alcohol use may arise as your tweens test their boundaries and prepare for what they think adulthood is. So, make your drug conversations more serious. Discuss the challenge of peer pressure and how to fight it. Use examples of people they know, including friends, family members, or celebrities, whose lives have been damaged by substance abuse. Give ideas for better coping mechanisms and help your child engage in other activities.

Stress the Mental Effects

If your kids ask if you've ever used drugs, and they probably will, answer honestly. [Let them know how different today's marijuana is when you smoked it and why it's important not to do it](#). If you had a substance abuse

problem, tell them how hard it was to escape it. Emphasize that you'll never let it happen again and invite them to learn from your mistakes.

Emphasize more heavily the fact that drugs damage their brains, because they are still developing. Remind tweens their brains won't stop developing until their early 20s. Until then, any drug use, even a little, can cripple their mental development and even cause [mental illness](#).

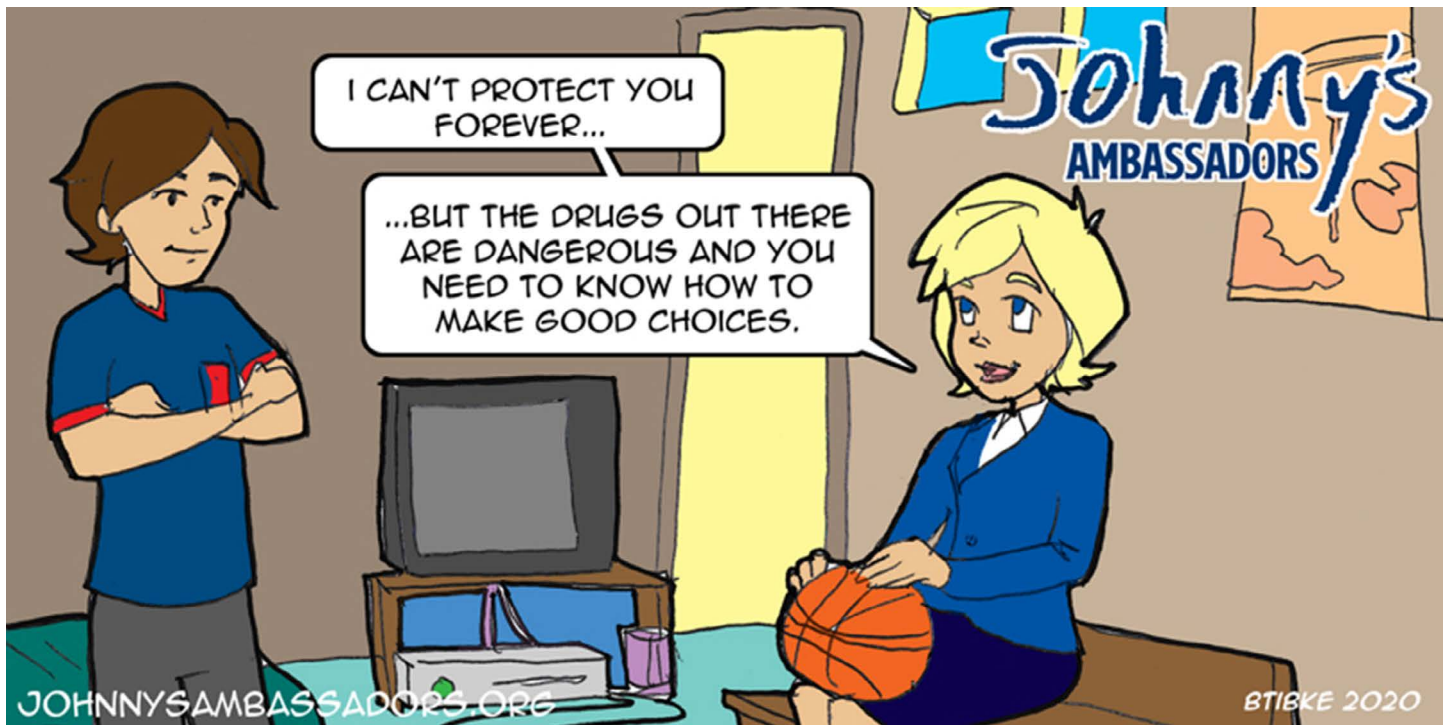
Try approaching the subject from different angles, so your child won't get too bored with the repetition and tune you out. For example, in one talk you might want to warn them about how drinking alcohol can severely damage brain cells, making it harder for them to [transmit signals](#) (and therefore thoughts) in the brain. Excess consumption can even kill brain cells, permanently damaging memory, the body's ability to regulate its temperature, and lower the heart rate. The amount of alcohol required to cause such damage is way lower for them than for an adult. All it takes is half the average adult amount, which doesn't amount to much anyway.

Here's another example: drugs can make you paranoid. High-dosage cannabis products [can do it](#), and can also make you [psychotic or paranoid](#). These are just a few possible effects of drug use on young brains.

Become an Ambassador!

Stress that these negative effects aren't just scare tactics — and show them proof. Tweens are Internet savvy these days, so urge them to do their own research. [Give them the link to our research page](#) and ask them to do some serious reading. Urge them to become [an Ambassador](#) and spread the word about how substance abuse of all kinds ruins young minds.

Too many of us have suffered when our children have hurt themselves through drug use. With your help, we can ensure fewer families have to endure that pain.



Talking to Your Kids About Drugs: Part IV, Teens

By Laura Stack

If there is ever a time when parents struggle with their children, it is during their teenage years. Not all teens rebel, but many have their share of clashes. After all, they know just enough about life not to know what they don't know.

As Mark Twain once put it, "When I was a boy of 14, my father was so ignorant I could hardly stand to have the old man around. But when I got to be 21, I was astonished at how much the old man had learned in seven years."

To put things in context, I'm guessing most of us parents felt that way during our teens as well. But we learned better. It's up to us as parents to attempt to reduce the negative experiences associated with that education. Nowhere is this more important than in life-threatening situations, including encounters with drugs they will most certainly face.

Unfortunately, when your kids are teens, they are almost most likely to face one of the bigger bugaboos of young adult development: peer pressure. And with the advent of social media, your child's peer group is much larger than ever, so the peer pressure is worse than any time in history.

The Neural Angle

Mental development is most obvious in little kids, but it continues throughout childhood and young adulthood.

In fact, kids experience a second “neural bloom” in the early teen years. One of the results is a much [keener sensitivity to social evaluation](#). Your kids care less about what you think of them, focusing instead on the opinions of their own age group. They feel everyone’s always watching and judging them. So trends and tendencies their peer group follows are more important, including experimenting with drugs and other addictive substances.

Your best defense here is to know that this increased sensitivity to peer pressure is happening, and it’s perfectly natural. Keep approaching your drug talks from a patient, emotionally accessible angle, listening and asking questions more than you talk. While your kids may seem to draw away from you, this occurs normally as any youngster matures and stretches their wings, so do not take it personally. Just work to be present. Adolescence provides practice for adulthood, or at least what they perceive adulthood to be. Your job is to help them get through this period with as few mistakes as possible, even if they resist you.

Caveats and Advantages

Your teens will probably prove less receptive to your drug talks than when they were younger. They may find them boring and repetitive, so keep mixing things up. Now more than ever, get to know their friends and their friends’ parents. Set reasonable boundaries and expectations, such as knowing where they are at all times, with a name and phone number. Call the parents to stay connected and thank them for having your son/daughter over to hang out. Make sure those parents are in alignment with your values. If the parents of your child smoke weed, and they don’t think it’s a big deal, their children are 70-80% more likely to smoke pot. Then they may try to tempt your child into it if smoking is “normalized” in their home.

It’s more important than ever to keep your kids apprised of new threats, and to support them against peer pressure. They may not want to listen, may even push you away, but keep trying. Let them know they can call on you anytime to rescue them from any situation where one of their friends has gotten high or drunk and they feel unsafe. I can remember a couple times when my children called to invoke the agreement, and I picked them up, no questions asked. They can quickly get into a situation they didn’t intend.

Now that your children are older, discuss the negative effects of drugs in more graphic detail. Whereas it might have gone over their heads a few years ago, pointing out today’s marijuana is stronger than ever due to selective breeding will make more sense to them. THC, the active chemical in cannabis, can rise as high as 25% concentration in some strains of “herb,” while reaching up to [90%+](#) in concentrated forms like dab or wax. Highlight not just the [paranoia](#) and [psychosis](#) effects of the hard stuff, but also the [IQ drops](#) and [chronic bronchitis symptoms](#) common to long-term cannabis users, which are more evident on a day-to-day basis.

Taking a Stand

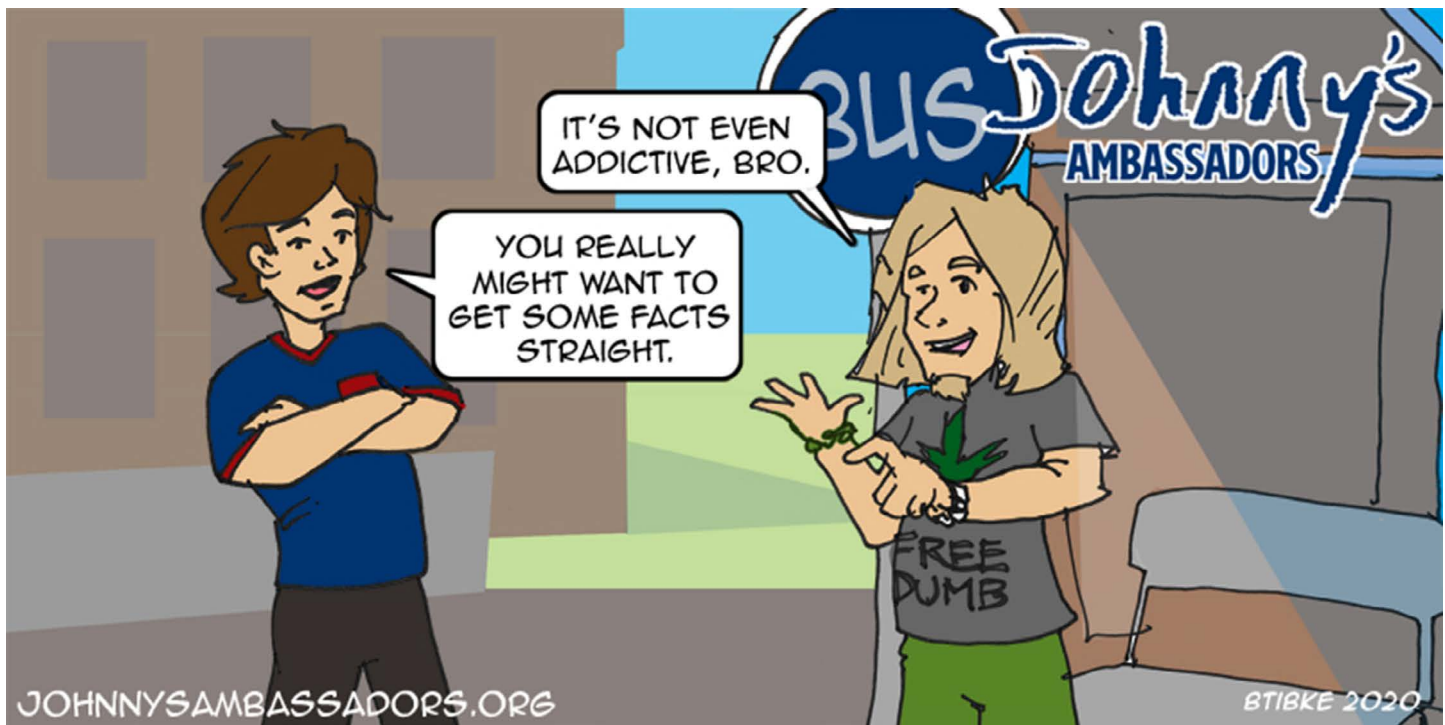
During your talks, continue to emphasize the negative effects of drugs on the body and brain. High-potency marijuana can hospitalize a young person with one hit, especially a first-time user. Lay down the law about drug use. Make the consequences of breaking the rules clear and stick to them. If you tell them you will take away their car or phone for a month if they break your rules, and they do, you must follow through. If you don’t, they’ll see you as a pushover and won’t listen to anything you say. There must be consequences for use of illicit substances with zero tolerance. Small beginnings can lead to huge consequences. Ask me about how I know.

Some sources may tell you not to express judgments when talking about drugs, especially if you discover your child has begun using. Some fear that making judgments will drive them further down the wrong path. While I agree it's easiest if your kids trust you enough to talk to you about anything, setting rules about drug use and abuse requires judgment.

When you make it clear that drugs are bad for your kids, you're making a judgment. When you discipline your child for experimenting or abusing drugs, you're making a judgment. If your child is abusing drugs or alcohol, there's no way you can bypass judgment. As a parent, you have to do whatever you can to protect them; so you must be very firm, and take charge in getting them the help they need. Be as gentle as possible, but make no mistake: your teens must know what they've done is wrong — not necessarily from a legal or moral standpoint, but because of the terrible things drugs can do to them and the people around them.

The abuse of legal-over-21 drugs like alcohol and marijuana can prove especially deadly to young people. These addictive substances can warp them mentally, cause psychosis, and cripple them physically, and those are just the personal costs. What they can do to others can be just as bad, from secondhand smoke to drugged driving accidents resulting in death. And worse, suicide, like my forever 19-year-old son, Johnny.

Johnny's Ambassadors is committed to educating parents and teens on the dangers of high-THC marijuana on the developing adolescent mind. Join us at www.JohnnysAmbassadors.org/join.



Is Marijuana Addictive?

By Laura Stack

I'll start by answering the question in the title. [According to the National Institute on Drug Abuse](#), YES, marijuana can be addictive. Marijuana use can lead to the development of problem use, known as a marijuana use disorder or THC abuse, which takes the form of addiction in severe cases. Recent data suggest that 30% of those who use marijuana may have some degree of marijuana use disorder.¹⁸ People who begin using marijuana before the age of 18 are four to seven times more likely to develop a marijuana use disorder than adults.¹⁹

Most of you reading this article know that my 19yo son, Johnny, died by suicide in November 2019. When he was 14, he asked me if I smoked pot when I was his age, and I replied honestly, I'd smoked it a few times in high school but didn't like how it made me feel paranoid. I also explained the grass we smoked in the 70s and 80s was weak, unlike today.

I wish I'd been more educated about how potent it really is nowadays, so I could have explained to him about the impacts of nearly-pure THC products on his developing mind. It rarely used to exceed a 2-5% concentration of THC (or delta-9-tetrahydrocannabinol, the active ingredient in marijuana that makes users high). Now, the lowest plant strains of cannabis exceed [12.5% THC on average to 28%](#). More concerning, the wax or extract forms that most teens vape contain up to [90%+ THC](#), usually in various preparations of [Butane Hash Oil](#) called wax, honey, dab, shatter, or budder. When adolescents "do some dabs," ONE HIT equals up to five joints, boosting the likelihood of addiction.

To add fuel to the fire, marijuana is *toxic*. Not only does it contain [3-5 times more pollutants than cigarette tobacco](#) (including hydrogen cyanide!), THC most likely evolved as a natural insecticide.

Relatively Speaking...

Let's look closer at the addiction question. An average of [9% of long-term marijuana abusers](#) become addicted at a psychological level, which means biochemical changes in their brains caused by excessive use force them to keep using. This rises to 17% if the user starts in their teen years, as most do; how the body handles marijuana, especially in large doses, is markedly different among those who start smoking as adolescents. Addiction can rise to as high as 50% among those who use every day.

And then there's the [30% or so of long-term users](#) who become physically dependent on marijuana, suffering what some call "[Cannabis Use Disorder](#)." Those suffering from such dependency experience negative physical reactions if they don't get their fix. If you become physically dependent on a substance, [addiction can soon follow](#).

The dependent and the addicted suffer from withdrawal affects if they try to stop using marijuana, including:

- Cravings
- Anger
- Aggression
- Irritability
- Nervousness
- Restlessness
- Anxiety
- Insomnia
- Bad dreams
- Depression
- Lack of appetite
- Weight loss
- Depression
- Abdominal pain
- Tremors
- Sweating
- Fever
- Chills
- Headaches

It's a long, unpleasant list, and those are just the withdrawal symptoms. Marijuana turned my brilliant, funny, happy, loving, creative, intelligent son Johnny into a lazy, sleepy, angry, irritable, unambitious, more anxious, unfocused person by the age of 17. He entered his senior year of high school in August 2018 with a 4.0 GPA,

and he barely graduated in May 2019 with four D's through the hard work of teachers, counselors, and us to get him through.

Being vulnerable here, I admit my mindset was, "Ah, well, it's clearly not affecting his grades." And "Kids will be kids." And "I smoked pot when I was his age, and it didn't hurt me." WRONG. WRONG. WRONG. The marijuana over time changed his brain, and we were too late—the damage had been done once we really understood his addiction. His brain had changed, and it didn't go back, even when he finally realized the association and stopped the marijuana.

When children smoke pot, it can hurt some in *any* form, in *any* amount. You just don't know which kids are going to have an impact on their minds—don't let it be yours. Here are some of the effects adolescents could experience:

- Slow [mental development](#).
- Permanently [lower IQ](#).
- Kill [motivation](#).
- Compromise [judgment](#).
- Cause [depression](#).
- Causes [paranoia](#).
- Can [cause psychotic breaks](#) or psychosis.
- Trigger [schizophrenia](#).
- Cause [suicidal thoughts](#) and suicide.

Some of these effects, such as transient psychosis, can occur with [A SINGLE HIT](#). If continued over time as the brain is forming, schizophrenia and suicidal thoughts can result. This is what happened to my Johnny.

Get Serious!

There's *no doubt* marijuana is addictive, and it can prove horrendously addictive. If an adolescent is using high-potency marijuana on a high-frequency basis, it's almost a foregone conclusion there will be dependence leading to addiction with much increased risk of psychological issues. Getting kids to stop isn't going to happen without some serious education and efforts by parents and kids alike. We must get through to our children about the effects of marijuana on their developing brains and how addicted they could become.

Please spread the word by forwarding this article to other parents and recommending they [register for our newsletter](#) and [read our research](#).



Johnny's Five Values: Part I, Altruism

By Laura Stack

There's a wise old saying that goes, "Into every life, a little rain must fall." Since the beginning of this year, America has experienced a figurative typhoon. History will remember 2020 as an *annus horribilis* during which the COVID-19 pandemic killed hundreds of thousands worldwide and sickened millions, damaging our economy in the process. While we don't have all the hard data yet, experts have suggested the conditions will cause increased adolescent depression, mental illness, and substance abuse rates, leaving more of our children at risk for suicide.

I often think about Johnny and wondered how he would have fared during all this if he were still alive today. He died in November 2019, before most of the U.S. had even heard the term "COVID." I believe the isolation and lack of work and friends would have made his mental illness worse; however, I do fantasize about him not going anywhere for two months. "But what WOULD he have done?" I keep asking myself.

We each have a set of values we cling to that help define our personality and actions, which act as an anchor to hold onto in order to keep us mentally and spiritually in place. I have a hint about how he would have reacted from a [college essay and PowerPoint show he wrote](#) three months before he passed away, which outlined his Five Essential Values:

1. Altruism
2. Patience
3. Conviction
4. Enthusiasm
5. Gratitude

I used his essay for the basis of my [Eulogy at his memorial service](#). Johnny was such an encourager and a loyal friend. From teaching preschoolers at Sunday School with me for many years, delivering Thanksgiving dinners to those in need, cleaning up in the community with our church, giving a homeless man his shoes, and giving away my umbrella (you'll hear this in the eulogy), Johnny received great joy from helping others. I believe we can all learn something from his five values, which are crucial in this uncertain world.

So, this week, I am kicking off a series of five articles based on Johnny's 5 Values, focusing how to use them as coping skills to reduce anxiety and stress. Today, we focus on his number one value, Altruism.

Altruism Defined

According to the dictionary, altruism is "the belief in or practice of disinterested and selfless concern in the well-being of others," at least for humans. The concept was first named by French philosopher Auguste Comte in the 19th century, as an opposite for "egoism," the state of caring only for oneself. The term derives from the Latin "alteri," or "other people." As Johnny put it in his essay:

"To me, altruism means being selfless or giving to other people, even when there may be nothing to gain and something to lose. Altruistic people do things for the collective interest instead of their own."

Many of us practice altruism without realizing it. It can be as simple as holding a door for someone. But despite the definition, it isn't always disinterested; most of us feel good about helping others. To some people, it's about giving back or paying it forward. One school of thought argues there's no such thing as true altruism; we do selfless things because we always get something out of it, one way or another. Helping others gives us an intrinsic reward, so we repeat it.

Whatever the case, altruism is one of the fibers that stitches together human society. As Johnny put it in his presentation,

"Practicing altruism is important because it helps benefit the whole of society and mankind. Also, being giving to other people will help you in the end, because altruism promotes a brighter future for everyone. As the saying goes, what goes around, comes around."

You Don't Have to Be a Saint

One person Johnny greatly admired and wrote about was Mother Teresa of Calcutta, who dedicated her life to public service. He considered her "the epitome of altruism." But you don't have to be a saint or Nobel Prize winner, or risk your life to save someone else, to be altruistic. As Johnny points out, you can get the same benefits of altruism from giving your family gifts at Christmas, helping at a homeless shelter, or serving in a soup kitchen. Often, the little things matter the most. As Johnny put it,

"I practice this day to day in often not too impactful ways, such as letting someone go ahead of me in traffic, giving money to homeless people and people who I see are desperate, or giving my spot to someone on the light rail if it's pretty packed and they could use the seat more."

Sometimes altruism may cost you a dollar or two, or get you where you're going a little later, or result in aching feet from standing too long. But the reward you get, even if it's just a warm feeling in your heart and a little

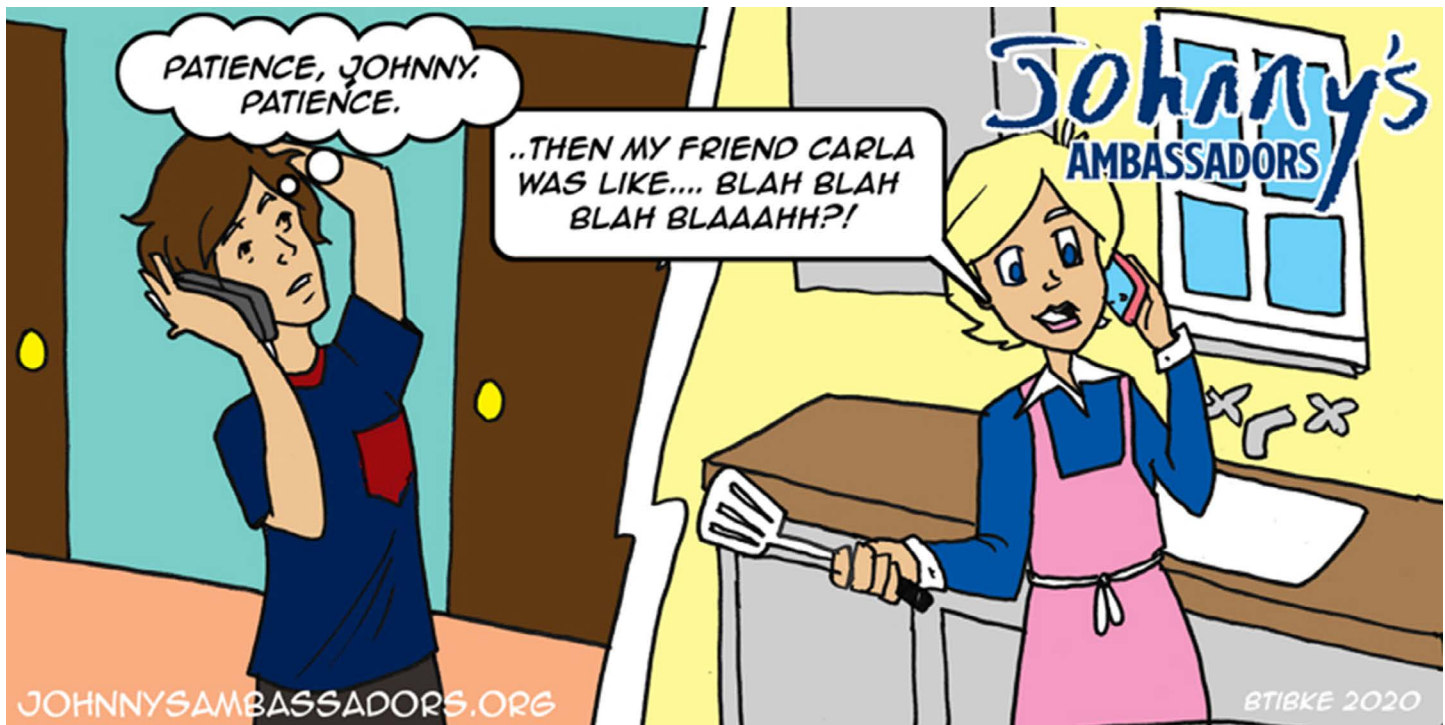
stress relief, is more than worth the cost. Ultimately, I view altruism as a form of love, both for others and for yourself.

Practice Altruism as a Coping Technique

Why do things for other people? Because it's good for you—it lowers your stress levels and increases your happiness. By measuring hormones and brain activity, researchers have discovered that being helpful to others delivers immense pleasure. Human beings are hard-wired to give to others. The more we give, the happier we feel. Studies have found that those who volunteer have a lower mortality rate than those who do not. Perhaps most important, on a personal level, knowing that you've helped someone (in however small a way) can ease sadness and make your own life just a little better. It doesn't take much to shine a little sunshine on someone else's day. It's worth helping someone else as a means of coping with life's anxieties. What can you do to increase the altruism in your life?

Our work through Johnny's Ambassadors helps Johnny help others and keeps his spirit of altruism alive. That's what he would have wanted. If you'd like to practice a little Altruism, please join us in being one of Johnny's Ambassadors and partner with us to prevent youth substance abuse, mental illness, and suicide.

As the Magic Penny song most of us learned as a child says, "Love is something if you give it away; you end up having more!"



Johnny's Five Values: Part II, Patience

By Laura Stack

Last week, I introduced a series of articles based on the five guiding values by which my son Johnny endeavored to live his life. I started off with altruism, as expressed in the ways we help other people with no expectation of reward. This week, we'll focus on a value that seems rare in this age of immediate or near-immediate gratification: patience.

In Johnny's words:

"I would say patience means being able to wait, even through stressful and infuriating situations, often in order to achieve a better result."

Admittedly, it was initially difficult for me to understand how patience could be Johnny's 2nd value because he could be very impatient at times. On one of our vacations in Hawaii, his favorite place in the world, we visited a place out in the ocean called Turtle Town, where a great many sea turtles lived. We were told, "Please don't swim to the turtles. Just be patient and wait, and they may come up to you. If they come up to you, please don't touch the turtles, just watch them." Of course, what does Johnny do? Swim toward the turtles AND touch them.

I think Johnny listed patience as the second most important value because he WANTED to be more patient. He thought it was important and valued it. Johnny said:

"Patience is a very important virtue to practice, because if you expect immediate gratification from most things, often you will leave disappointed."

I'm sure you've heard that old saying he mentioned, "Patience is a virtue," which I used to repeat to them as children. But have you ever really thought about that saying? The Oxford English Dictionary defines virtue as "a behavior showing high moral standards." The dictionary defines patience as "the capacity to tolerate trouble, delay, or suffering without getting angry or upset."

Ideally, patience should be so common in day-to-day life that it goes almost unnoticed. But it isn't. There are some situations where we expect or demand patience: from adults teaching or tending children, from store clerks and other providers in retail situations, and in any customer or human service position. Breakdowns happen, but typically there are consequences for those who lose their patience in such situations.

Otherwise, patience is distinctly lacking for many people, as you can observe every day. Many tend to get irritated, angry, or even infuriated when something keeps them from getting from Point A to Point B (literally or figuratively) in the least possible amount of time. We've also become so technologically sophisticated we don't expect to have to wait on anything for very long. Some of you can still remember the days when you had to wait for your car to warm up before you could go somewhere. TVs took a minute or two to warm up enough for the image to appear. Computers couldn't handle more than one program at a time, and it took several minutes for a large text file to open. Today, we don't have to wait long for most of our technology.

However, when there's a human interface, there *will* be wait time. I think that's where we need to be better as a society. Johnny said:

"I practice patience every day by doing a myriad of things, such as when the person in front of me on the highway is going ten under, or when there's a line at the grocery store, or when my mother has stretched out a phone call to 25 minutes."

(This week's cartoon illustrates that, haha!) Johnny, like every child since the first generation of humanity, has been in a hurry to grow up. Frustration is a simple fact of human existence. Our oldest texts often relay stories of impatience that got people in serious trouble. In the Book of Numbers in the Christian Bible, Moses struck a rock to get it to produce water instead of speaking to it, as God had instructed, because he felt frustrated and impatient with his people.

Too much built-up stress and anxiety caused by impatience can cross over from mind to body, resulting in health issues ranging from to panic attacks to cardiac arrest.

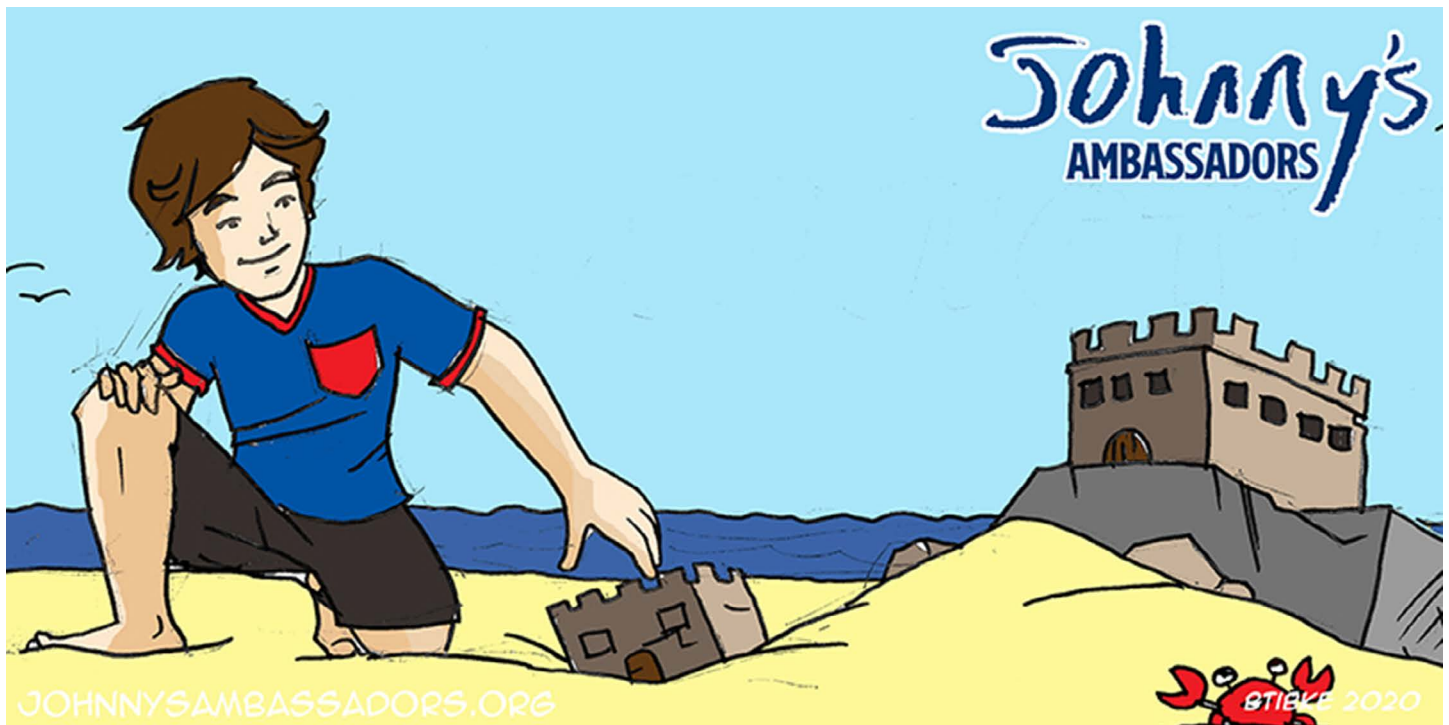
Patience helps you organize your thoughts and expectations, so you can manage your emotions, and persist in your actions long enough to achieve your goals. Patient people are also [healthier](#) than [impatient people](#), whether you're talking acne or pneumonia — or at least, they're less likely to report health issues. More importantly, exercising patience is key to maintaining your mental health, if only because it's unreasonable to expect instant gratification.

Giving yourself a time-out, counting to ten, taking a walk, or just quietly praying or meditating can take the edge off your anxiety. In Johnny's words:

"While facing difficult or challenging situations, it's always best to just take a few deep breaths and destress yourself so that you can proceed with the clearest mind to make the best decision. Other coping exercises such as taking a break from what's causing you stress or doing something you love can help de-escalate your emotions in intense scenarios."

As I've been forced to learn from Johnny's suicide, God's time isn't always my time. I must be patient to fully understand, and I may never know this side of heaven. As Johnny pointed out, "Many good things take time to blossom to reach their full potential, and there is no use in getting frustrated." Patience can give you peace of mind, and even make you feel good when you use it to help other people, as we're working to do with Johnny's Ambassadors. It certainly can be healing.

When you want something badly enough, be patient, keep working hard, and wait for it to happen. Johnny and I loved Billy Joel. For his 18th birthday, we decided that I would take him to NYC to see Billy Joel at Madison Square Garden. But then Billy had to have sinus surgery and rescheduled the tour. Then we had to cancel the 2nd attempt, but we finally got to see him when he came to Denver in August 2019. We were right up front and sang along loudly, together. He told me, "Third time's a charm, right mom?" I told him his patience had won out.



Johnny's Five Values: Part III, Conviction

By Laura Stack

When Johnny was assigned a presentation on his five most important values in one of his college classes three months before he died, "Conviction" was 3rd on his list (following Altruism and Patience). I'll write about his 4th and 5th values in the next two blog posts.

In this sense, the word "conviction" refers to a steadfast, unshakable belief. Conviction can refer to faith in a higher power, in humanity, in a process, a body of knowledge, a value, or a principle. As Johnny defined it:

"I think conviction means showing confidence in what you believe in, knowing is the truth, and standing by it."

Most of us understand the concept of conviction, though not all of us practice it—or if we do, it's only when something goes wrong, not a daily thing. When you reach for a conviction, you want it to be there, or your hands may slip off, and your ability to cope in difficult situations can fail.

Rock Steady

A conviction is no less than an anchor that holds you in place in the stormy seas of life. My Christian faith helps me through my worst storms, including Johnny's death. It doesn't mean I don't grieve or feel pain—trust me, I am—but I have Him to hold on to. We believe that Johnny is in the Lord's presence and healed of his afflictions, and we will see him again. We take comfort in Psalm 34:18, which says, "The Lord is close to the brokenhearted and saves those who are crushed in spirit."

What is that anchor for you? For example, perhaps you have a sound conviction in the sanctity of the Second Amendment to the Constitution. That belief may not guide your whole life, but your belief in your right to keep and bear arms may also anchor your sense of independence, self-reliance, and patriotism. If you're an outdoorsman, perhaps sporting is important to your self-care. Perhaps you're convicted to provide for your family, and it brings you a sense of self-worth.

The good news is, it's never too late to find or develop convictions that let you hammer in stakes capable of holding you in place, come what may. So, give it some thought: what do you *really* believe in? What steadies you and validates you? What makes you happiest and most peaceful when you think of it? (Thing like the Dallas Cowboys or ice cream don't count.) For your conviction to really work, it is something significant, constant, and life-affirming, such as beliefs in your self-worth, personal abilities, your family, your country, humanity in general, or your faith.

Shelter from the Storm

You can trust in your conviction to lead a worthwhile life. As Johnny wrote,

"Conviction should be practiced, because if you aren't going to hold your ground resiliently and believe in yourself and what you stand for, then no one will. Many great and powerful leaders are only where they are today because they have conviction. We can practice conviction by being knowledgeable about what we're talking about so that we have the utmost confidence in ourselves. In my personal life, conviction is practiced by me not allowing myself to be pushed around or tread on, and by being confident in the decisions I make."

When you have a conviction to cling to, it's far easier to settle yourself down when you're uneasy, uncertain, or in pain. A solid conviction eases your mind, whether it's a central conviction that guides your whole life, or a peripheral one that pertains to a specific subject or constellation of beliefs.

In addition to my faith, I'm convicted about my abilities to help people become more productive in work and life and to help them spend more time with their loved ones. In fact, I've made this my career. And I'm convicted about my purpose and calling to save the lives of our youth. That's what Johnny's Ambassadors has become for me. I am absolutely convicted, more than anything else in my life, to educate parents and teens about the dangers of today's high-THC marijuana on the developing adolescent mind. I will not stop until we close the gap between the actual and perceived harmfulness of marijuana in our young teens!

I was touched to find that Johnny chose me as his role model for his Third Value. I was so proud of him, and it turns out he was so proud of me. Johnny said:

"Though it may appear to be cliché and overdone, the biggest role model in my own life is my mother, Laura Stack...she always believes in what she's doing."

He wrote an entire paragraph about me, concluding that I was a symbol of conviction to him and many others. He never said this to me while he was alive. So, to all the parents out there, you never know the difference you're making in the lives of your children and the strong impact you can have on them. Better praise I could not ask for; just knowing he felt that way comforts me. That's also one of the most important functions of any conviction.

Self-Assurance and Survival

Johnny hit the nail on the head when he defined conviction as showing confidence in the truth and standing by it. Conviction helps you keep your feet during quakes caused by social change, personal pain, or attacks on your belief system.

Nothing is more reassuring than unshakeable confidence in what is right, and nothing is more lifesaving when stress, spiritual or emotional pain, and other worldly concerns assail you. The anchors of conviction that secure your psyche, and your personal values define who you are as a person. They reveal your true self when unexpected events threaten to capsize you. Without them, you're lost at sea.

My husband, John, and I, along with our two surviving children, Meagan and James, have personally seen how quickly marijuana can overwhelm the convictions of a bright, loving, talented person like Johnny. Thank you for helping us keep his spirit alive and being one of Johnny's Ambassadors.



Johnny's Five Values: Part IV, Enthusiasm!

By Laura Stack

Continuing our series on Johnny's most important values, he listed his fourth value as Enthusiasm. It probably won't surprise you to learn it's one of my personal values as well. I make much of my living as a professional speaker on the topics of productivity and time management, and without enthusiasm, I couldn't do my job well. If I'm not excited about my work, why should anyone else be?

When I attended the University of Colorado (waaaaay back in the late 80's), I had a professor whom I swear was a robot. Seriously! His presentation was as dry as dust (as if it hadn't changed in 10 years), and he spoke by rote. Have you ever heard speakers or teachers like this? Not very interesting, were they? By paying attention very hard, I learned more about the subject (although I can't tell you what it was), but I didn't leave the course with more enthusiasm for the topic. By contrast, I had an instructor who was happy to be teaching her chemistry class. She enjoyed the topic so much that her cheerful, energetic enthusiasm was infectious—even though I was a business major—her energy affected me. I left with a positive attitude toward chemistry!

An infectious enthusiasm brings everyone up; and it not only buoys you, it can help bring new attitudes into being. While hard work will always remain very important, as Ralph Waldo Emerson once pointed out, "Enthusiasm is one of the most powerful engines of success... Nothing great was ever achieved without enthusiasm."

Defining Enthusiasm

Typically, dictionaries define enthusiasm as an intense enjoyment for something. Johnny defined it as:

[“Approaching every obstacle or situation with the utmost of optimism and cheerfulness.”](#)

Johnny’s co-workers at PetSmart commented that he always had a smile on his face. So, enthusiasm isn’t necessarily boisterous or energetic; in fact, it’s often quiet, even understated. It’s clear that Johnny understood this, because he chose Fred Rogers as his role model for enthusiasm. That’s right: the quiet, super-polite host of the famous children’s TV series *Mr. Rogers’ Neighborhood*. The protagonist of *It’s a Beautiful Day in the Neighborhood*, a biopic about Fred Rogers, called him “the nicest man in the world,” and he touched generations of children’s lives for 31 years from his modest studio in Pittsburgh, PA.

As Johnny points out, his show was “chock full of life lessons,” which were essential for Johnny’s personal development and for learning a positive outlook on life. Like Mr. Rogers, you don’t have to be big and showy to display enthusiasm. Johnny practiced his sense of enthusiasm in simple ways:

[“Reminding myself that sometimes wonderful things can come out of meager situations, doing my best to have a smile on my face, and thinking positively even when it’s not the easiest thing to do.”](#)

Many adults have become jaded to the point of boredom with their lives, so they ignore the idea of enthusiasm. They’re too tired for it, or they’ve had a bad day/week/year. Only idealists or fools maintain their enthusiasm long-term, right? But they’ve forgotten who they are, letting baser emotions drag them down. I like Johnny’s take on this:

[“We literally are our headspaces, and emit different energies based on our moods and perspectives. These energies are contagious, and how you behave could potentially impact someone else around you... Enthusiasm is essential to practice, because if you enter into a situation where you’re thinking negatively, the outcome will also most likely be negative.”](#)

A sense of enthusiasm is vital when you’re feeling battered by the world, stressed, and depressed. While it won’t fix everything, it *can* help pave over the cracks in your emotional world, and make you feel better about yourself. Doing something you’re enthusiastic about, whether it’s fixing a car, painting, singing out loud, or even cleaning the house, can lift you out of a bad mood and put you back onto a brighter path, making you feel like the important person you are.

Johnny had a huge enthusiasm for learning. He was scary smart and creative and curious and philosophical and loved to debate topics that were over my head. He always hated it when I bragged about him, but he got a perfect score (800/800) in the math section of the SAT. Regarding his score of 34 on the ACT, he complained about the poor wording on some of the answers in the English section. He tutored our neighbor’s daughter in math over one summer, and she was able to test out of an entire year of math. He went to a camp at Stanford for a week to learn game design. He went to chess camps, robotics camps, and IDTech camps to learn various programming languages. He loved these experiences. He excelled in video games and was the highest rank in one of his favorites, CSGO. In high school, his GPA was so high that after nearly failing the last semester of his senior year with four D’s when he was caught in the grip of drugs, he still graduated with high honors.

Johnny always knew his intellect was his superpower and maintained his enthusiasm for learning right up to the end. Even a few days before he died, he was still asking me to buy him books. Believing in yourself and what you’re doing is essential for true enthusiasm. You can’t make any values work for you until you truly believe you’re worth it, after all. Your life matters. Your family’s lives matter. Your children’s lives matter. Please enthusiastically remind yourself and them every day they matter!



Johnny's Five Values: Part V, Gratitude

By Laura Stack

In the days and weeks after Johnny died, several of his friends came to our house to visit. They expressed their love for Johnny and shared memories with us. They showed us such kindness by taking the time to talk with us. We expressed gratitude in return by letting them pick something that reminded them of Johnny—a sweatshirt he wore, a stuffed Ram that was on the dash of his car, his special gaming headset, or his longboard. We were heavy-hearted when they left but so grateful Johnny's belongings could be of comfort to his friends.

The dictionary describes gratitude as “the quality of being thankful; readiness to show appreciation for and return kindness.” Johnny saw it this way:

“Simply put, expressing gratitude is showing you're thankful for what you have, or a kind act. I believe it's crucial because so often, we take what we have for granted. For example, there is no other you in this entire universe. The chances of you being born are 1 in (let's just say, a lot), and that is incredible in itself, and worthy of appreciation by every single person. ... we should be thankful for every little thing that we do have. I practice this by always showing my appreciation to those who support me, including my friends, family, and coworkers, and by being thankful that I have all the basic necessities — a roof over my head, food, water, a bed, and much more.”

Expressing gratitude makes you feel good. True gratitude isn't just a buzzword; it's a weapon to use against depression and stress. And it's surprisingly easy to use, a kind of catalyst where just a tiny effort can positively transform your day.

It's Not Just for Thanksgiving Anymore

Like our family, many American and Canadian families have a tradition where each person shares at least one thing they're thankful for while sitting around the Thanksgiving table. It's a cheerful process that generally results in smiles and laughter. Why do we only do this once a year?

Johnny went through this exercise as a school assignment just three months before he died. He had just landed a new job at PetsMart, moved into our condo down the street, started a new class, and got a new puppy. His instructor told them for five days to record the top five things they were grateful for. Here is what he wrote:

8/24/19:

Pool next to where I live
Gym next to where I live
Laundry machines I my place
Family
Society

8/22/19:

Brushing my teeth
Shelter
Have enough to afford food
Using my brain; retention and memory
Clothes to wear

8/22/19

First day of work went well
Sunshine
Had fun playing video games
My phone
Running water

8/21/19:

Sleeping in my bed
Balcony I can chill on
Listening to music
Enjoying showers
Driving my car

8/20/19:

Was able to present without too many nerves, bounds better than I used to be
Got an A on my presentation
Made it home safe from class
My puppy went on his puppy pad like he's supposed to instead of the floor
Having a class to go to in the first place, being able to go to college

Here is how he debriefed his assignment afterward:

“Overall, I think this exercise that was assigned to us for the purpose of making us think about, be conscious of, and appreciate the little things that we often take for granted, was entirely enlightening for me. There were so many ideas I had for things I was grateful for on a daily basis, more than just the ones I wrote down, and I think that actually taking the time to reflect on things that might otherwise not be noticed, just goes to show how many things we have to be grateful for that we should be mindful of. Often, my life cruises by without thinking or acknowledging the things that I find joy in or assign significance to, or even less, the things I would typically define as necessities. Nevertheless, I have found gratitude to be an extremely important value to me, especially in my recent years, and even was one of my core values that I shared with the class in my values presentation.

I mentioned in my slideshow an encounter that I had about a year ago with a homeless man named Troy that helped shape me and really assigned, emphasized, and prioritized gratitude as one of my core qualities. To summarize, Troy was a dirty, jobless, homeless man that I had coincidentally met outside of voodoo donuts. He was shoeless when I first walked up to him, but after listening to his story of going from living a fulfilling life with a steady job and a wife to losing everything one day suddenly, he inspired me to start showing gratitude for everything, and to give him the shoes off of my feet as a gift for sharing with me this valuable lesson, which I internalized.

Johnny was the real role model to me here, because meeting this gentleman, and getting to know him a little, made him realize all the good things he had. He practiced his gratitude by literally giving the man the shoes off his feet. I’m not sure if Johnny realized it, but this kind act expressed what he felt thankful for—precisely in line with the value of gratitude. Johnny concluded:

“The lesson is: It doesn’t have to be the grandiose things of life and our material possessions that we should show the most gratitude for. Regarding the most basic of things which many of us own or even simple day to day occurrences, thinking about and expressing gratitude in these situations which we often never even think about is the most rewarding. Overall, this activity has been a great experience and reflecting on it, I think it helped reinforce the notion that I previously had to be grateful for all of the small things in life.”

Practicing gratitude, he points out, also puts things in perspective. Plenty of people in the world have it worse than you do, so do your best to enjoy what you have.

Gratitude in Action

You don’t have to start big. Just think of *one* good thing that’s happened to you at the end of each day, and dwell for a moment on how it made you feel. Some people maintain a gratitude journal, where they keep track of the things that make them happy every day. Journaling your gratitude provides surprisingly good therapy, helping not just to plant the seeds of a positive attitude, but nurturing it as it grows. Even on your worst days, you can usually find something to praise: a satisfying meal, a convenient empty seat on the subway, a smile from a friend, even a fun TV show. It may feel good to vent and complain, but that may prove toxic to others if you don’t use it for constructive solutions. Gratitude shortstops negative feelings and relieves stress at least as effectively as complaining, especially if you can get a laugh out of it.

This article concludes our exploration of Johnny's Five Values, the principles by which my oldest son lived his life before, tragically, his delusion turned on him. I have found comfort in his 5 Values and hope you have, too. So, maintain and express Altruism, Patience, Conviction, Enthusiasm and Gratitude—or their equivalents in your life—on a regular basis, especially when you feel like the punching bag of life.

You've heard the saying: "Into every life a little rain must fall." Of course, what happens to you in life isn't as important as how you react to it. Johnny's Five Values can help you with this goal. Anyone can apply them, and they offer a ready-made umbrella you can open against the rain.

I'm grateful for your support and friendship and for being one of Johnny's Ambassadors!



What Are the Types and Potencies of Modern Marijuana?

By Laura Stack

Marijuana is a pervasive drug in U.S. culture, and has been since long before its legalization, partial legalization, or decriminalization in 42 states and the District of Colombia. Originally, there were only three main types of marijuana product: flower, hashish, and hash oil. But, nowadays, thanks to the double-edged sword of human ingenuity, there are many more types of marijuana products available.

In addition to flower, some are edibles, based on plant material, oils, or distillates. Others are solvent-derived extracts, mostly made using butane and carbon dioxide, deliberately designed to contain very higher concentrations of THC—the chemical that makes users high. Names like wax, shatter, budder, badder, dabs, and more have recently entered the marijuana lexicon, and these products often have very different THC potencies.

While the terms “concentrate” and “extract” are often used interchangeably, there is a difference. *All extracts are concentrates, but not all concentrates are extracts.* The primary difference between a concentrate and an extract is how the trichomes are collected. Trichomes are the resinous hair-like structures which stick up from the flower of the bud on the cannabis plant. Trichomes contain THC, which house the psychoactive effects of weed and when activated produce the “high.” Extracts are a type of concentrate created using solvents (butane, alcohol, carbon dioxide, etc.) that essentially wash the trichomes off the cannabis plant. Concentrates made without the use of solvents are produced using mechanical or physical means to remove and gather trichomes.

In this article, we'll look at the basics for each main type.

Flower. This refers to the dried flowers of the marijuana plant, which is the smokable part of the cannabis plant. In practice, it could include seeds, bits of stems, and shredded leaves as well. Users often refer to any cannabis plant matter by the catch-all term “herb,” “bud,” or “grass.” Until the 1990s, THC potency in herb averaged about 3-5%; now, it varies between about 12-25%, depending on the cannabis strain, with an [average of 15.6% in 2018](#). Growers continually increase herb potency through selective breeding. It's usually smoked using a pipe or a bong or rolled into a joint or a blunt.

Edibles. Anyone can make marijuana edibles, either using flower or one of the other products, so the potency can vary widely. However, legal cannabis edibles are highly regulated, especially those used for medical purposes, with the THC measured in milligrams rather than percentages. [In California, for example](#), over-the-counter edibles may contain no more than 10 mg of THC per serving (and no more than 100 mg per package), as opposed to 1,000 mg for recreational concentrates and vape cartridges.

Hashish (Hash) is a concentrate made through a mechanical process that isolates resin heads. It refers to the hardened resin of the cannabis plant, usually added to tobacco for smoking, though it can also be eaten or smoked on its own. It comes in blocks, sheets, and balls, and often resembles grainy, low-quality chocolate, usually varying in color from yellow to a dark reddish-brown. Water-purified hash is called “bubble melt hash” or bubble hash” due to its texture and is more pliable. The potency of hash ranks higher than flower; it currently averages [15-30% THC](#), though some growers claim [it can reach as high as 60%](#).

Extracts. The various forms of extracts (see below) mostly derive from hash oil via a solvent, often butane, though recently carbon dioxide has become more common as consumers have expressed concern about butane's use. Butane Hash Oil (BHO), Rick Simpson Oil (RSO) and CO2-extracted cannabis wax are examples of extracts; the varying textures make up the difference from one product to another:

Wax serves as a general term for any semisolid marijuana concentrate that's opaque due to the way it solidified. Most wax looks and feels a lot like crumbly earwax (one of its nicknames), but less solidified versions may resemble softened butter (budder), cake batter (badder), or resin (rosin), depending on thickness and texture. It's highly potent (up to 99%+) and often used in dabs.

A *dab* just means a small amount (a dab) of a concentrate, usually wax (above), which the user burns and inhales. Some vape it, since it lacks a strong odor; others may use a special “dabbing rig” or even just a hot nail or rod on which they burn the material. See my blog [“What is 710 Day”](#) for more information. Users call it “taking a dab” or the verb form “dabbing.” This is the toxic chemical that triggered marijuana-induced psychosis in Johnny after two solid weeks of dabbing. Johnny started out with flower and progressed to this highly potent form.

Shatter is a type of solidified butane hash oil (BHO). It's typically clear amber in color, so glossy and fragile looking it seems it might shatter like glass when dropped, hence the name. However, it does have some flexibility. It's often full of holes, something like a slice of Swiss cheese. It tends to be quite potent, at 60-80% THC content.

Pull 'n Snap, another BHO, manifests as a type of shatter that lives up to its name. A user pulls it like taffy and snaps off a piece for use. In warm temperatures, it gets messy and stringy.

Crumble refers to a solid, opaque THC concentrate, usually a BHO, with a crumbly texture.

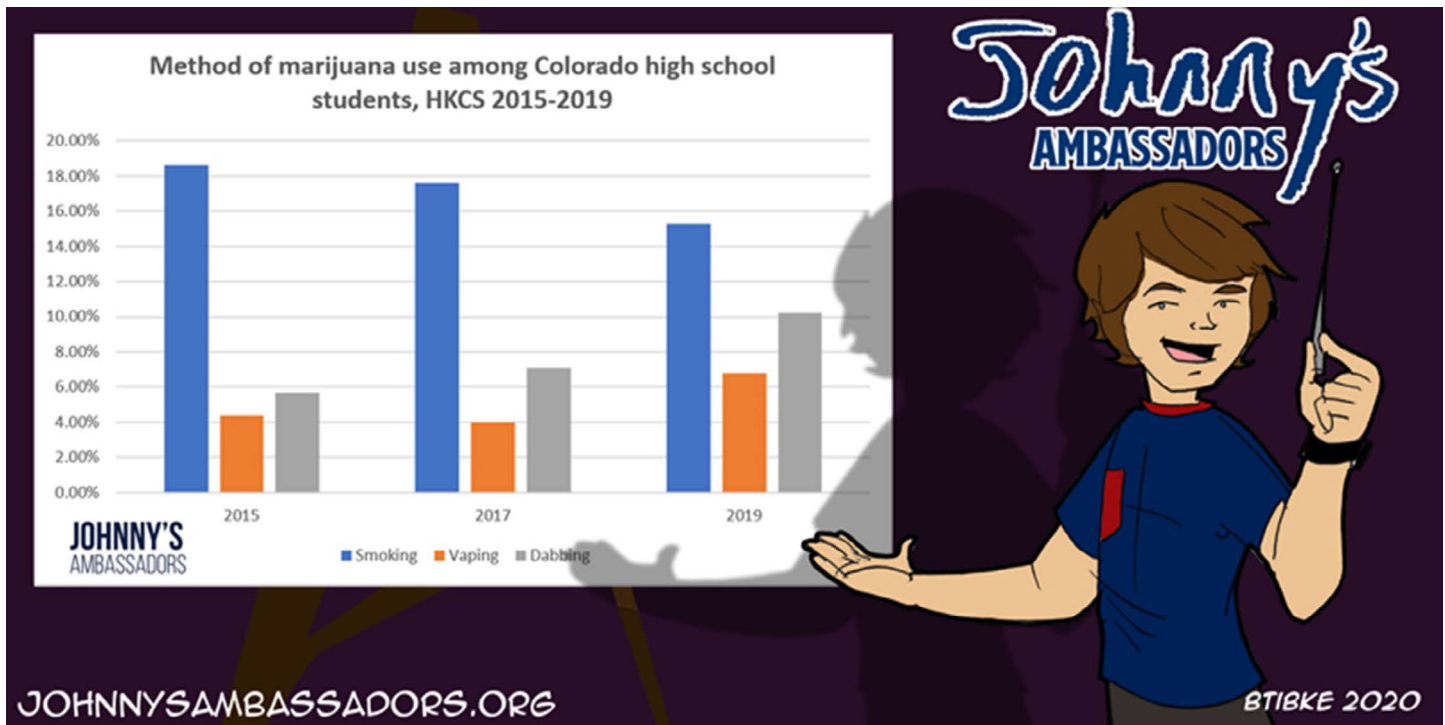
Distillates/Oils. Originally, this category consisted of only unmodified hash oil (about 20% THC), the third “traditional” form of marijuana—basically, a liquid form of hash (above). It can be distilled or concentrated with solvents to form THC oil. True distillates, however, are extra special because they’re even more pure and potent than some of their concentrated, oily cousins. Distillates go through extra refinement processes to remove additional compounds via boiling-point separation. Why? Because the goal is to isolate very specific plant pigment and biproduct. Once these cannabinoids have been distilled, they are re-condensed, and the finished product can be up to 99% pure cannabinoid. Potent! It’s the purest of pure cannabis oil in its activated form. Distillates are often vaporized, but users put them under the tongue, dab them, smoke them, ingest them in a capsule, or infuse them into an edible.

Tinctures. A [tincture](#) is a flavorful, solvent-based infusion that are popularly consumed in edibles. It’s basically an infusion made by soaking herb in a weak solvent like alcohol, glycerin, or medium-chain triglyceride (MCT) oil. Unlike most concentrates, the solvent becomes part of the finished product. Its THC potency is typically quite low, often less than 1%; the legal limit is 0.3% in most places where it’s legal for medical use. Tinctures are [usually consumed](#) as drops placed under the tongue or even sprinkled in salads.

What’s the Big Deal?

As a parent of a teen, it’s important to know and understand the differences between types of marijuana products, because high-potency and high-frequency can cause mental health [problems in the developing adolescent mind](#). A few have medical uses, including some edibles, tinctures, and topical rubs (not discussed here because there’s almost no recreational use). While all forms of marijuana can cause health problems, highly concentrated forms (like most of those discussed above) multiply the probability those problems. Some individuals [can’t even take a single hit](#) from a dab without hospitalization. Others may eventually suffer from [paranoia, depression, psychotic episodes, suicidal ideation](#), or in some cases, [schizophrenia](#), which is what happened to Johnny.

Marijuana is not a victimless drug—and it’s much more potent these days than any pot you adults may have experimented with when younger. To protect your kids, learn as much about it as you can.



The State of THC in Colorado And Teens' Marijuana Use, 2019

By Laura Stack

Reprinted from <https://johnnysambassadors.org/thc-colorado-2019>

As a Colorado mother whose family has been devastated by teen marijuana use, I was quite interested when the Colorado Department of Public Health & Environment (CDPHE) released two important studies on August 3, 2020: *THC in Colorado Marijuana*, and its *Healthy Kids Colorado Survey (HKCS) 2019 Supplemental*. The first covers the potency of different types of marijuana products available in the state. The second focuses on young Coloradans' marijuana use. The studies covered the various methods of marijuana use—smoking, dabbing, eating/drinking, vaporizing, and other, breaking them down by percentages. We'll take a closer look at those statistics in detail.

On the upside, these reports offer the good news the most of our kids do NOT use marijuana in any form. But that goes hand in hand with the fact that more than one in five high school students *do*. According to the CDPHE survey, the 30-day use prevalence for marijuana was 20.6% among the state's high school students. This significantly exceeds the prevalence for the entire population, an estimated 16.5. However, I recently heard from a 16-year-old teen, who admitted he and "everyone" lied on the survey, because they were required to login on their Chromebook and were afraid their answers could be tracked and attributed to them.

Bad News

The bad news is legion. THC potency in every form of marijuana has risen steadily since legalization, sometimes

significantly from year to year. The average percentage of THC in almost 93% of the products sold in legal outlets exceeds 15% and is rarely less than 10%. The potency of legal flower marijuana (herb) as of 2017 was 19.6; it can legally reach as high as 35%. By the same year, the average THC potency of legal concentrates had risen to 68.6%. Edibles are less potent due to 2016 policy changes that limited THC to 10 mg per serving, and 100 mg per package.

The legal age for recreational marijuana use is 21 in Colorado; so, with the exception of those using pot for “medical” purposes (although no level of THC is recommended for the developing adolescent mind), none of the adolescent users are doing marijuana legally. This means they are obtaining it quite easily (having homeless people sitting outside the pot shops buy it for them; buying it from the local high school drug dealer; getting it from their parents). There’s no regulation of the potency (percentage of THC) in the products they use, so the potency can vary widely, since it includes both legal and illegal sources of the drug. In some cases, it may be very high, especially for concentrates. For example, shatter and wax, which are commonly used for dabbing, can have a THC potency of up to 95%+, and some distillates are approaching 100%. Some pot industry folks have reported they are nearing the ability to inject THC with 100% pure THC. This is very scary, as in Amsterdam, [nearly 50% of the visits to psych facilities are attributed to the use of high-potency cannabis](#).

Even worse, according to the main survey for the population as a whole, users who favor concentrates tend to partake *more often* than herb users, at about six times per week versus about four times weekly. High-frequency, plus high potency, plus youth = horrible news on the developing adolescent brain. This constitutes a significant health threat, since high-potency marijuana use increases the likelihood of the drug’s known negative effects. Brain development continues until [at least age 21](#) (hence the legal age for use), but experts say it’s actually 28-30 years old, meaning marijuana use stunts mental growth in teens. In fact, according to solid [scientific research](#), teen users of any form of marijuana are more likely to develop mental defects, varying from permanently lowered IQ to long-term depression, paranoia, psychotic breaks, and suicidal thoughts. The authors of the primary report noted specifically that the correlation between THC concentration and mental health effects is **strong** among adolescents, young adults, and adults.

Worse News

The data from the *Healthy Kids Colorado Survey 2019 Supplemental* is especially disheartening. The fact that 20.6% of all high school students (on the conservative end to not account for false answers) have used marijuana in the last 30 days is dismaying enough. Even for the underage, marijuana has clearly been easier to obtain since legalization, and apparently has become more acceptable because it *is* legal for adults.

Look at the graph Johnny is pointing out in the cartoon. In 2019, smoking remained the most common method of use for the high school populace, at 15.3%, followed by dabbing (10.2%), eating or drinking (7%), vaping (6.8%), and other (1.6%). Some students use more than one method.

But listen to this: [nearly three-quarters of high-school users \(74%\) reported having smoked marijuana in some form in the last 30 days](#), with 55.9% smoking it as their main method of use. The frequency of users who dabbled at least once was a scary 49.4%, with 20.4% citing dabbing as their primary method of use. The percentage of dabbers has gone up by 500% since 2015; vaping showed a similar increase. *In other words, young Coloradan have shown a troubling trend to escalate to methods of use that deliver higher and higher concentrations of THC.* This should ring alarm bells, since we know without a doubt that high-THC marijuana products can cause or worsen mental defects in developing teen brains. As the CDPHE put it in their August 3 report:

“High THC concentration marijuana use by adolescents and young adults is associated with continued use and development of future mental health symptoms and disorders. ...it is clear that use of products with high concentrations of THC are associated with higher rates of psychiatric disorders, such as schizophrenia, psychosis, and generalized anxiety disorder.”

The way youth are usually using marijuana is significantly changing. In the past 30 days, among the current users of marijuana in high school, here's what's changed in HOW they use it from 2015-2019. Look how dabbing and vaping added together (the high-potency forms) are 31%, so it's catching up to smoking, which is in a decline:

- Smoked: 55.9% in 2019; 77.8% in 2017; 86.6% in 2015
- Ate: 9.9% in 2019; 9.8% in 2017; 2.1% in 2015
- Dabbed: 20.4% in 2019; 7.6% in 2017; 4.3% in 2015
- Vaped: 10.6% in 2019; 4.0% in 2017; 5.1% in 2015

In the 'ast 30 days, high school students usually used smoking as their main method for consuming (10.6%), followed by dabbing (3.9%), followed by vaping (2.0%). If you add dabbing and vaping together (the high-THC methods), you're at 5.9%, which is catching up to smoking. See how the smoking trend is falling, and the dabbing and vaping trends are increasing? This is trouble!

Furthermore, flower marijuana is [indisputably a gateway drug](#) for young users chasing a better high. I saw this in my son Johnny, who started as a recreational herb user before graduating to dabbing—whereupon he became paranoid, schizophrenic, and suicidal, and eventually killed himself.

Additionally, 32.4% of youth drove a vehicle after using marijuana in the past month, which is a statistically significant increase from 9.0% in 2017.

In conclusion, in the words of the Colorado Department of Public Health and Environment:

“For Colorado high school students, there have been recent changes in methods of marijuana consumption. Comparing method of use between HKCS survey years 2017 and 2019, the prevalence of dabbing and vaporizing as methods of marijuana use are increasing. In 2019, 10.2% of Colorado high school students dabbed at least once compared to 6.9% in 2017. Furthermore, dabbing became the second most (3.9%) usually used method next to smoking (10.6%) among high school students. These are concerning trends since marijuana products associated with these methods of consumption often contain high concentrations of tetrahydrocannabinol (THC), the primary psychoactive compound within marijuana. Public health and key partners should prioritize youth marijuana prevention efforts to mitigate these increasing trends.”

“Public Health Statement: High THC concentration marijuana use by adolescents and young adults is associated with continued use and development of future mental health symptoms and disorders.”

For more in-depth information, you can down load both reports [here](#).

The demonstrably higher prevalence of teen marijuana usage may be due to the continued perception among the general populace that marijuana is a mild drug; Johnny's Ambassadors is committed to narrowing the gap between the perception and actual harm of marijuana on the teen brain! [Please help us continue to raise money to fund our online curriculum for teens!](#)



Fact vs. Fiction: Can Marijuana Kill You?

By Laura Stack

One of the most common questions that people ask marijuana experts, advocates, and opponents alike is the one posed in the title of this blog: *Can marijuana kill you?* It's an excellent question, and during my research for this and other blogs, I've read as many articles that concluded "Absolutely not!" as those concluding, "Absolutely!"

Deaths Directly Cause by Cannabis Are Very Rare

Marijuana toxicity is NOT a myth. However, the "acute toxicity" of the drug appears to be quite low, since marijuana works by attaching to and stimulating existing cannabinoid receivers in the brain, rather than by directly harming your gray matter or other portions of your body. So while a few deaths have been attributed directly to cannabis use by medical professionals, deaths *directly* caused by marijuana are exceedingly rare. In fact, the death rate is still the lowest of any Schedule 1 or former Schedule 1 narcotic tracked. However, it's not zero, and there are indirect causes of death in using marijuana.

1. [It has killed people](#) from non-stop vomiting.
2. [It has killed people from house explosions](#).
3. [It has also killed people from driving while high](#).
4. [It may also kill people from burns](#)

Dr. Aaron Weiner, a member of [Johnny's Ambassadors Scientific Advisory Board](#), says, "Saying that it hasn't killed anyone and thus it's OK to use is a really, really low bar. There's a lot of things that won't kill you, and you

still definitely shouldn't do, particularly as a teenager. Eating your shoelaces. Hugging a wild badger. Going into a room alone with R Kelly. The argument doesn't make logical sense."

FACT: Deaths *Indirectly* Caused by Cannabis Are Not Rare

An [August 2020 study](#), said, "Many of the concerning health implications of cannabis include cardiovascular diseases." It should also be noted the severe and acute harm caused by vaping *anything* with EVALI last year and now this year with COVID, pulmonologists are [seeing even more problems for those who vape](#).

The American Journal of Clinical Pathology cites dabbing as one of the official CDC screening criteria for acute lung injury. The American Thoracic Society has come out with a warning about the use of any kind of vaping product, including marijuana concentrates. It took many years to recognize the dangers of cigarettes—we could be on a similar path with vaping. It's not worth the risk!

Furthermore, cannabinoid hyperemesis syndrome (CHS), or cyclical vomiting, has led to death by dehydration [in several cases](#). CHS, which can occur in regular users, presents as vomiting, abdominal pain, and nausea.

I can't stress often enough that regular marijuana use can have devastating effects on the developing brain of an adolescent. I've discussed its dangerous side effects many times in this blog: the permanent [drop in IQ](#) among long-term users, the loss of ambition, damaged judgment, [depression](#), [psychosis](#), [paranoia](#), [schizophrenia](#), and [suicidal ideation](#), among others. All those things have contributed to deaths, accidental and otherwise, usually in which something else has been recorded as the primary cause. Often, such deaths result from side effects like lapses of judgement, poor coordination, and mental illness brought on by marijuana use.

We're starting to see more and more of these negative effects more and more often as marijuana use becomes increasingly common among young users, and increasingly erodes brain development, often stunting it so they never achieve their potential even if they do survive. Teens often engage in riskier behavior than most adults, either simply because they're teens, or they believe the negative news about pot is propaganda, or they feel they need the marijuana and have no choice but to take risks getting it.

Marijuana is more likely to lead to [chronic psychosis](#) than any other drug studied. About half of those who experience a marijuana-induced psychotic break will [eventually develop a schizophrenia spectrum disorder](#).

Some observers point out that ingesting too much of *anything* can kill you, even water, but that's a diversionary argument, if not totally specious. Humans don't require marijuana for survival, and no one ever drowns in it. And yes, one can always blame the user, claiming they knew what they were doing. But that argument doesn't wash when uninformed teens are involved—teens taught by society that marijuana is safe and "cool" rather than actively dangerous.

Think of marijuana as a loaded gun. While you can't blame a dumb hunk of metal for killing someone, the death probably wouldn't have happened if the gun wasn't easily available—or if the person who fired the gun had received proper education about gun safety.

Even when it doesn't kill outright, marijuana can prove deadly when mixed with other drugs or alcohol to increase or prolong the high. Users call this "crossfading." Crossfading deaths in which pot plays a part are

often missed due to failure to include all contributing facts, or what the CDC refers to as “multiple causes of death.” If nothing else, combining marijuana, a depressant, with other potential depressants can slow a user’s breathing so far that they suffocate. Alcohol, barbiturates, and many prescription drugs, especially opioids, can depress your breathing rate. These effects can be cumulative. For some people, crossfading marijuana may provide a tipping point that kills them.

There are good, solid reasons why the legal usage age is 21 even in states where recreational use of marijuana has been approved. That’s about when the brain finishes maturing. Until then, kids shouldn’t have access to marijuana; unfortunately, they don’t agree. A teen who’s serious about getting it will.

The Sad Fact

Proponents may prefer to decouple the indirect deaths from the marijuana equation. But medical studies and statistics show that long-term marijuana use results in a decline in quality of life that *can* in fact kill you, even if the likelihood is small.

I’m certain my son Johnny never expected marijuana to truly hurt him, at least not until near the very end. But it did contribute to his death by suicide. Some may call that his cause of death, but it all started with marijuana use.

Neuroscientist Christine L. Miller, Ph.D., says, “I would say that marijuana containing THC is one of the most dangerous drugs for mental health out there, a true wolf in sheep’s clothing.”



How Does Marijuana Influence Adolescent Brain Development?

By Laura Stack

The cartoon of Johnny aiming for a mailbox with a bat while driving in the back of a speeding car pretty much depicts the lack of judgment characteristic of a yet-undeveloped adolescent prefrontal cortex.

As America's #1 most-used illicit drug and #2 most-popular substance after alcohol, marijuana has been subject to a wide battery of medical studies over the past few decades. In recent year, studies have shown its effects can be devastating, both in the short- and long-term. The biggest problem we worry about at Johnny's Ambassadors is the severe effects on the adolescent human brain. It can stunt mental development in users, leading to lifelong deficits.

Mental Development in Adolescents

One of the tradeoffs of having big brains is that we humans are born earlier than is optimal, leading to continued brain development outside the womb. Brain development continues until our mid- to late-20s. Like just about everything else, it kicks into high gear during puberty, so kids aged 12-18 are at especially high risk for anything impacting their physical and mental development. And there's no doubt marijuana impacts mental development in young people, which is also why it's illegal until the age of 18 (at least proponents acknowledge this science).

While results may vary from person to person, we know that regular marijuana use can result in cannabis-induced anxiety; depression; and suicidal ideation; psychosis; paranoia; and schizophrenia. [One study](#) of

45,000 Swedish military conscripts demonstrated that those who used marijuana more than 50 times before age 19 proved six times more likely than the norm to develop schizophrenia by age 34.

The mechanism causing these effects isn't entirely understood, but apparently, repeated cannabis use in teens [interferes with the development of the prefrontal cortex](#), the part of the brain directly behind the forehead. This area of the brain, the last to develop, is particularly active in adolescence, as the brain prunes some synaptic connections and firms up those most useful to survival. Meanwhile, it refines its use of brain chemicals in preparation for the [transition to adulthood](#). The PFC handles decision-making, planning, impulse control, paying attention, and complex behavior, including executive function—something like the foreman in a factory, who tells people what to do and how to do them. It also helps determine adult personalities and social abilities. For all these reasons, the teen mind is therefore vulnerable to biochemical alteration that prevents it from producing its own natural compounds and growing correctly. Ultimately, marijuana interferes with the child-to-adult transition process; studies have shown adolescents stay “stuck” in that regard at the age of first use.

How It Happens

The way marijuana generates a high is different than how most intoxicants work. In addition to their devastating psychological effects, drugs like heroin and cocaine cause physical damage to the brain, some of which may result in addiction and lasting impairments. Marijuana, on the other hand, hijacks an existing brain process. We all possess natural brain chemicals called endocannabinoids. Marijuana compounds mimic them with 85+ cannabinoids, especially the cannabinoid THC, which produces the “high.” Our natural endocannabinoid system helps us manage stress, pain, mood, anxiety, and fear. Endocannabinoids also play a role in fetal and adolescent mental development.

Because they're a part of our natural neurochemical arsenal, our neurons already have receptors where endocannabinoids fit and go to work. THC takes over these chemical receptors, resulting in a high because they disrupt their natural function. If this happens too often, they can alter and block important functions, including the transmission of a neurochemical called GABA that plays a big role in inhibition. Basically, it stops you from doing impulsive things, like, smoking more weed. If the endocannabinoids can't find their homes because THC already occupies them, the brain may automatically start producing fewer endocannabinoids—or none at all—and then you have to use more and more marijuana to achieve the same high. This process inevitably stunts mental growth as your own brain no longer creates its own chemicals. So when you abuse marijuana as a teen, your own mind eventually turns on you.

The Final Negative Influence

The problem here is getting young people to understand and actually worry about what might happen to them if they use marijuana. This is one of THC's most underestimated effects on adolescent brain development. Because teens don't understand how THC talks their bodies into betraying them, they don't see it as a major threat the way heroin or cocaine is. Worse, they use it because they consider it a low-risk gamble since “all of my friends are using it.” Most adults may think their kids don't understand the potential effects of early marijuana use, but in many cases they do. They just aren't worried about anything happening to them. Teens feel invincible, due to their PFC not being formed. They know that unlike harder drugs, not everyone gets addicted to marijuana or has lingering effects. They also know it has a very low death toll.

One developmental neuroscientist, [Kuei Y. Tseng](#), often addresses young people about the negative effects of THC, and he points out that all they really want to know is how much they can consume without harming their brains—something he can't quantify. Scientists have concluded there is no safe amount of marijuana during adolescent brain formation.

In an advisory released August 29, 2019, the US Surgeon General went so far as to state that “until and unless more is known about the long-term impact, the safest choice for pregnant women and adolescents is not to use marijuana.” Former US Food and Drug Administration (FDA) commissioner Scott Gottlieb said he had significant concerns about the “great natural experiment we’re conducting in this country by making THC widely available,” citing his fears about “the impact that this has on developing brains.”

Most urgently, we must educate parents and teens about the dangers of today's high-THC marijuana on the developing adolescent mind. That's our mission here at Johnny's Ambassadors. We are developing an online curriculum to help teens and their parents understand what a deceptive threat pot really is. It can leave you with a lifetime of crippling mental illness, which can be hard to worry about it if you can't imagine it.

Believe me, my son Johnny couldn't imagine it. He thought it would never happen to him. Those who have never experienced delusional thoughts that the mob is after you can't understand how awful it can be. Please don't risk finding out.



What Symptoms Do Adolescents Try to Treat with Marijuana, And Does It Help?

By Laura Stack

Most of us are so used to thinking of marijuana as a recreational drug that it might surprise you to learn that some teens don't use it to get high. In a number of [small studies](#), teenage users have reported using marijuana primarily to cope with life issues. The symptoms they most often target include physical pain, anxiety, depression, ADHD, grief, and stress. Others reported using it to help them sleep or concentrate; the latter would dovetail with the ADHD and, potentially, depression and anxiety issues. Some use pot to help relieve more than one symptom.

Often, these teens know about *some* of the negative effects of pot, including loss of concentration and a decreased ability to learn. But they claim [they don't use the drug in excess, and that, in fact, their usage is "normal."](#) Clearly, they feel its benefits outweigh its costs, and deliberately try to limit their use to avoid addiction and mental illness. Unfortunately, these young users aren't sufficiently informed to properly regulate or, in medical terms, to "titrate" their drug use. As a result, sometimes the self-medication results in addiction or a worsening of the very symptoms they're trying to alleviate.

Note that these are *not* teens who have been diagnosed with ailments like seizures, cancer, or glaucoma, for which the [medical use of marijuana](#) has been approved. They've made the decision to medicate themselves with the drug under recreational use (they do not have med cards, and it has not been prescribed to them). This is made simpler for them by the fact that marijuana products are easy to acquire, even for underage buyers (a 16-year-old Colorado teen I just talked with said any high schooler can get marijuana in five minutes).

Many users claim marijuana helps them relax and temporarily helps them forget their symptoms, but the scientific evidence for that is lacking. Much of the anecdotal evidence contradicts this idea as well. Marijuana use does not aid in concentration, and for many users, it stimulates them rather than makes them sleepy, due to the high THC content of most modern marijuana products.

Worse, in high doses, users can end up with worse effects than those they're trying to escape, including heightened [anxiety](#) (e.g., [cannabis-induced anxiety disorder](#)) [psychotic breaks](#), [paranoia](#), [deep depression](#), and [schizophrenia](#) (up to five times the normal rate). It also may trigger [suicidal tendencies and thoughts](#) (up to [seven times the normal rate](#)). In one study of twins, marijuana use was associated with [twice the normal risk for depression](#).

The scientific evidence shows that in most cases, [anxiety actually increases between uses](#) and may scale up to outright panic. Such attacks can occur [even while using](#).

Using marijuana for anxiety and depression is like walking a high wire without a net, over a pit of razor blades. You must balance it very carefully, or you'll fall off and hurt yourself. It's better to try one of the many prescription medications that are proven to help manage anxiety and depression without increasing either.

To understand how marijuana makes people feel "high," you have to turn to neurotransmitters (natural brain chemicals) call [endocannabinoids](#). These fit into special receptors in your neurons to help regulate brain growth during adolescence, as well as regulate your moods all your life, including anxiety and general happiness. The chemicals in cannabis, called cannabinoids, mimic natural endocannabinoids and steal their places in your neurons, activating your reward system. One writer calls them [a "dimmer switch" for neurons](#), disrupting the function of neurotransmitters and hindering message handling—i.e., thought—in the affected neurons. But if you use pot too much, the presence of excess cannabinoids in your brain interferes with message reception and damages brain development in teens.

When you get right down to it, self-medicating with cannabis is dangerous, especially for adolescents, and doesn't work all that well anyway. With rare exceptions, there's always a long-term, legal medication or therapy that works better for all the symptoms I've discussed. If you think otherwise, you're fooling yourself and flirting with dependence, addiction—and mental illness.



Can Marijuana Use Lead to Suicidal Ideation in Some Adolescents?

By Laura Stack

The evidence-based negative effects of cannabis on adolescents are [many and varied](#), especially for [young people](#), and we're [covered](#) them [numerous times](#) in [previous blogs](#). But today, I want to discuss openly a very sensitive topic: THC as it relates to adolescent suicidal ideation and suicide. *TRIGGER WARNING: METHODS OF SUICIDE MENTIONED.*

On August 30, 2018, I received a very chilling text from Johnny, who was two weeks into his freshman year at Colorado State University (CSU). I was reassuring him that it was normal to feel worried about making new friends, and he replied, "Is it normal to think about killing yourself every day?" That text started the worst 14 months of my life that ended with the worst day of my life on November 20, 2019, when Johnny completed suicide. Our grief and questions continue today.

We disenrolled him from CSU, where he had received the highest scholarship for academic performance in high school (4.0), and admitted him to a mental hospital, where they held him for 72 hours. He told me he had "been dabbing for two weeks non-stop" with his roommate, who had moved to Colorado from Minnesota just to use marijuana (lovely). We knew he had experimented with marijuana since it was legalized in Colorado when he was 14, but now we really started to learn about "dabs" and how potent it is compared to the grass we had as teenagers.

During visiting hours at the hospital, Johnny told me he would just kill himself anyway when they let him out. We begged the hospital not to release Johnny, but he lied to them and told them he wasn't suicidal, so they

released him anyway. Several days later, when we had to go to CSU to retrieve his items from the dorm, he tried to hang himself in his bedroom closet at our house. He called me on the phone and told me he had just tried to kill himself. I kept him on the phone while calling the police on John's phone. Thankfully, the police blocked him on our street while he was attempting to drive off and took him to the hospital, and then he was re-admitted to the mental hospital.

Two weeks later, the marijuana had worn off in his body, and he no longer felt suicidal. The discharge paperwork said he was suffering from "THC Abuse Severe." Here is an image of the doctor's writing:

A photograph of a handwritten note in black ink on a white background. The text reads "THC Abuse Severe" in a cursive, slightly slanted script. The letters are somewhat thick and the spacing is consistent.

So, yes, if you doubt it, it's true that people can feel suicidal after using marijuana, especially at a young age, using high-THC products like dabs in high frequency. I know because it happened to my son.

[An independent study](#) came up with a nearly 7-fold elevation in risk in suicidal tendencies in adolescents who use marijuana. At the least, [part of the risk for suicide](#) may be exerted through the mental disorders that marijuana triggers, particularly psychotic disorders and depression. But [another corrected for a prior history](#) of mood disorders, including depression and risk of suicide attempt, and concluded that marijuana elevated risk of suicide 7.5-fold. There is also [evidence that marijuana's effect can be more immediate](#) from a recent study illustrating the likelihood of suicidal thoughts increased on the days when an adolescent uses marijuana.

After four months at home, the marijuana had worn off in his body and mind, and he recovered. We were all so hopeful when he said he wanted to try again to college. We enrolled him at a different university this time, the University of Northern Colorado (UNC) in Greeley. He started off well, but sadly he gravitated toward the marijuana culture and started using again. This time, it caused a psychotic break, and Johnny claimed UNC was secretly an FBI base, and he was wanted for being a terrorist. Since he was 18, the University wouldn't keep us in the loop. Shockingly, even after he told his Resident Advisor (RA) he felt suicidal (she told me so in a Facebook message after he died), they didn't call the police. They simply moved him to a different dorm because he thought his room was bugged. It took significant maneuvering, but we finally got him admitted to a different mental hospital.

(Side note here parents—make sure to get a medical or durable power of attorney and a HIPAA authorization for your children before they leave for college, so you can help them in these instances. UNC wasn't prepared to handle Cannabis-Induced Psychosis (CIP) and did the wrong things, the most egregious of which was not calling the police and/or having him admitted to a mental hospital.)

Fast forward, Johnny didn't stop using. Eventually, after repeated CIP incidents, the psychosis didn't go away when he stopped using, and it triggered schizophrenia. After countless doctors, medicines, treatments, programs—someday I'll detail everything we tried in a book—he stopped taking the antipsychotics he now needed to get his brain under control (a common part of the illness).

Five weeks before he died, to his credit, he made a valiant effort to stop using marijuana. We know he had stopped using marijuana, because his toxicology report showed NO THC in his system. We know from his texts that he used October 13, and he died on November 20. Sadly, it was too late for him. Four days before

his death, he wrote in his journal the mob was after him and everybody knew everything about him, so his delusion was still very apparent.

Three days before his death, he held me tightly and told me, “You were right all along. You told me marijuana would hurt my brain, and it’s ruined my mind and my life. I’m sorry, and I love you.” We just couldn’t watch him 24/7. In a final impulsive act of delusion and paranoia, he jumped from a 6-story building.

Johnny is now in the presence of our Lord and free from his pain, which is the only thing that gives me comfort from my sense of failure from my inability to prevent it. John and I will always struggle with the hundreds of decision points that led up to this and wonder if we could have changed the outcome.

I share this (long) story with you, because Johnny became just ONE of the EIGHTY youths in Colorado ages 15-19 who died by suicide in 2019. According to the Colorado Department of Public Health and Environment, in 2019, SUICIDE WAS THE #1 CAUSE OF DEATH for adolescents 10-19. In Colorado, the THC positive toxicology screens in youth aged 15-19 have consistently increased over the past several years (while such data was being collected by the Colorado Department of Health), such that it became the [leading drug found in suicide victims of that age range](#) (32% were positive by 2017, about 1.5-fold higher than the average monthly use rate for that age group in Colorado).

This is no coincidence. We want the world to know Johnny isn’t just a statistic—there is a reason Johnny died—and it is marijuana. Johnny didn’t have any delusion before marijuana. Johnny’s marijuana use led to [changes in his brain development](#), which led to mental illness, which led to suicide. So, while it’s rare to die from an acute overdose of THC, we know for a fact that long-term cannabis use can result in [thoughts of suicide](#) and suicide itself, evidenced by our beautiful boy.

The Harsh Proof

Upon my request, Christine L. Miller, Ph.D., kindly [wrote a white paper just for Johnny’s Ambassadors](#) in September 2020 on “Applying the Bradford Hill Criteria for Causation to the Relationship Between Marijuana Use and Suicidal Behavior.” Dr. Miller has researched the causes of psychosis for 30+ years in the academic setting, publishing 33 papers in peer-reviewed journals. Her specialty is molecular neuroscience, i.e. the study of molecular influences on brain function. She has acted as a reviewer for several journals, including the Journal of Neuroscience, Biological Psychiatry, Schizophrenia Bulletin, and Bipolar Disorders. Dr. Miller holds a B.S. degree in Biology from M.I.T. and a Ph.D. in Pharmacology from the University of Colorado Health Sciences Center.

Her research has considered the abovementioned studies and more, using the rigorous Bradford Hill Criteria to link cannabis use and suicidal behavior. As [Miller explains](#),

“In 1965, Sir Bradford Hill developed a set of tests designed to elucidate causal relationships in epidemiology. These criteria have subsequently become accepted as important standards for epidemiological and clinical science.”

There are nine Bradford Hill Criteria:

1. Demonstration of a strong association between the causative agent and the outcome.
2. Consistency of the findings across research sites and methodologies.
3. Demonstration of specificity of the causative agent in terms of the outcomes it produces (not applicable in this illustration)
4. Demonstration of the appropriate temporal sequence so that the causative agent occurs prior to the outcome.
5. Demonstration of a biological gradient, in which more of the causative agent leads to a poorer outcome.
6. Demonstration of a biologic rationale, such that it makes sense that the suspected agent causes the outcome.
7. Coherence of the findings, such that the causation argument is in agreement with what we already know.
8. Experimental evidence.
9. Evidence from analogous conditions (not applicable in this illustration)

Miller concludes that all but the fourth in the above list apply to the relationship between marijuana and suicidal behavior, not just suicidal thought. (For that single criterion, not enough evidence has been presented to prove an appropriate temporal sequence, though Miller points out that the data is “strongly suggestive.”) Ultimately, she makes it clear that the weight of the current evidence:

“Should be regarded as strong enough to elicit widespread public health warnings about the suspected role of marijuana use in precipitating suicidal behaviors, since the mandate of the relevant authorities is to err on the side of protecting public health rather than to establish scientific certainty beyond a shadow of a doubt.”

That’s as close to a ringing declaration that marijuana use can lead to suicidal ideation and suicide as we have thus far, and I have little doubt that, within the next few years, that link will be proven beyond a scientific doubt. By then, we will have lost of generation of young people. How long did it take for them to make the connection between tobacco use and death?

An Ounce of Prevention

The time is now. Pandora’s box has been opened. The bottom line is that young, developing brains CAN’T COPE WITH THE DEMANDS OF TODAY’S HIGH-THC MARIJUANA. A teen’s judgment is already impaired by puberty, as much as they might like to think otherwise. Their decision-making abilities aren’t the best, and they may assume that just because something is legal, it isn’t dangerous to their health. The media and pot industry makes everything sound so safe. But anything can be abused, and substances like cannabis and alcohol have hidden dangers that adolescents may not know or fully understand.

As a society, we do make some efforts in schools and in the media to discourage teen substance abuse. I’m not sure, however, that we do enough to make it clear that teens *should not touch* some substances that are

legal for adults—not just for legal reasons, but because of biological effects that are much worse for young people, whose brains and bodies are still developing. Why don't kids play with rattlesnakes? We teach them they are dangerous from an early age, and kids develop a healthy fear of rattlesnakes. The SAME THING must be done with marijuana, so children have a healthy fear of what it can do to them. They need to know that suicidal ideation is just one of the horrible side effects of marijuana use, and some young users are especially susceptible, and it could be them.

Johnny's Ambassadors seeks to educate parents and teens about the dangerous impact of today's high-THC marijuana on adolescent brain development and suicide. We don't want this to happen to another young person and need to sound the alarm! We are doing all we can do develop a new online curriculum we hope to take half a million teens and parents through our program in the next three years, while simultaneously trying to raise enough money to stay just ahead of our development. [We could really use your help](#) raising funds during Suicide Prevention Week, Sept. 6-12 and beyond.

It's up to US, as parents, grandparents, caretakers, teachers, doctors, older siblings, and YOUTH THEMSELVES to make a sincere, strong effort to discourage adolescent cannabis use. Even then, sometimes it's not enough, and our Johnny is lost to this poison forever. Several people have written to me since the inception of Johnny's Ambassadors and sadly reported "Your story is now my story." It could be your child, your grandchild, your niece or nephew. If they are using, please tell them to stop using marijuana NOW. If they aren't using, talk to them about never starting. The brain continues to form until the late 20s we know now. We must spread the word about what pot really can do to kids (and indeed to some adults, but youth are our mission). I don't want to see any other families damaged by the suicidal effects of marijuana use.



Top Ten Teen Toking Tip-Offs

By Laura Stack

Is your teenager using marijuana? In this era of easy access to weed, that's an important question.

The Substance Abuse and Mental Health Services Administration (SAMHSA) just released the [2019 Annual National Survey on Drug Use and Health](https://www.samhsa.gov/2k19) (NSDUH), the most comprehensive survey on drug use. Out of children ages 12 to 17, 17.2 percent say they used marijuana in the past year (in states like Colorado, it's even higher). Among young adults aged 18 to 25, past year marijuana users increased from 29.8 percent (or 9.2 million people) in 2002 to 35.4 percent (or 12.0 million people) in 2019. Sadly, in 2019, approximately 699,000 youth aged 12-17 have an addiction to marijuana, representing 187,000 new youth with a Cannabis Use Disorder (CUD) in 2019 versus 2018.

Our children are good people. However, the changing—and inaccurate—views about marijuana's relative harmlessness may tempt them to give in to peer pressure and try it. If your child becomes a regular user, you might think it would be obvious—but that's not necessarily so. It is pretty easy for your teen to hide it from you.

In this article, we present ten True-or-False statements covering some of the most likely tip-offs that your teen is using marijuana, followed by the answers.

True or False?

1. If my teen were using marijuana, I'd be able to smell it.
2. My teen often has red, bloodshot eyes and uses eye drops frequently, which could indicate marijuana use.

3. My teen has suddenly changed his circle of friends, but this can't signal possible marijuana use.
4. If my teen is vomiting a lot, it can be a sign of marijuana use.
5. My teen is more lethargic and is sleeping more than usual, which could signal marijuana use.
6. I found hollowed-out cigars and burned nails in my son's backpack, which seems odd but can't be related to marijuana use.
7. If my teen's grades have started to plunge, marijuana could be the culprit.
8. My teen seems to be anxious and depressed, but that's just normal teen behavior, not a sign of marijuana use.
9. My teen is saying some strange things about her phone being bugged; this sudden paranoia can indicate marijuana use.
10. I'm not worried about my daughter, because teen girls rarely use marijuana.

Answers:

1. FALSE. While smoked marijuana does have a distinctive, skunky smell, [vaped marijuana](#), whether in oil or solid form, often has little or no smell. Not only won't it waft through the house, you won't smell it on your teen's breath and clothes. Similarly, dabbing high-THC concentrates like wax or shatter produces a much milder smell that a user can easily dissipate in a well-ventilated place. A smoke filter can also cover up most of the smell, and it's easy to make a "splroof," a handmade filter, from a cardboard tube and a dryer sheet. A room deodorizer or incense can also effectively mask the smell of marijuana, and your teen may wear more perfume or cologne than normal.
2. TRUE. Marijuana users often have very bloodshot eyes because [marijuana is a vasodilator](#). It lowers your blood pressure, which causes the capillaries in your eyes to relax and increases the blood flow to those vessels. To counter this effect, users often use eye drops specially formulated for redness, which decreases the size of the capillaries in the eyes to make the bloodshot appearance go away. If you note your teen using a lot of eye drops for no apparent reason, or you find bottles of eye drops and don't know why, he or she may be using marijuana.
3. FALSE. Your teen suddenly changing a circle of friends may signal marijuana use. If his friends all use drugs, or old friends who don't do drugs no longer associate with your teen, that's another red flag.
4. TRUE. [Marijuana toxicity](#) is unexplained nausea and vomiting, increased blood pressure, fast heartbeat, anxiety, panic, paranoia, hallucinations, delusions, and extreme confusion. If your child is vomiting frequently and taking a lot of hot showers, it may be a sign of [Cannabis Hyperemesis Syndrome](#) and requires medical treatment. A teen user may also act giddy or "out of it" for no obvious reason or let their personal hygiene go.
5. TRUE. Marijuana is known to make users become more lethargic. This may manifest as them no longer taking an interest in activities they once enjoyed. Sudden changes in behavior is a classic sign of drug use. If your child suddenly becomes [overly tired](#), combative, secretive, uncommunicative, or loses interest in once-favorite activities, then investigate further.

6. FALSE. Having [paraphernalia](#) around the house (and possibly blaming a friend) is a sign of marijuana use. Those hollowed-out cigars you found in your kid's backpacks are used for smoking pot. Users call them [blunts](#). They pack them with herb marijuana and smoke them like regular cigars. They contain a lot more marijuana than a joint and can be very potent. If your child has been hiding burned nails, they're probably [dabbing](#). This highly dangerous form of marijuana use involves inhaling the smoke from burned high-THC concentrates like shatter, budder, and wax. Using nails to hold the marijuana and a lighter to burn it is a simple form of dabbing, though there are "rigs" and pens made specifically for dabbing.
7. TRUE. Teen marijuana users [often lose interest in school](#) and may start to skip classes or whole days. It takes a lot of time to be involved in marijuana. They also stop studying, which is reflected in poor grades. Long term, it can lead to a permanent drop in IQ. Like my son Johnny, some users can still function well enough to get by. There are other factors that could cause a drop in academic performance, from emotional distress to physical and psychological problems, but you'll definitely want to question marijuana use as well.
8. FALSE. Your teen may tell you he or she is using marijuana to "chill out" or as "medicine" for anxiety and depression. However, there's solid scientific evidence that marijuana can cause or worsen these conditions. Marijuana use can definitely trigger [depression](#), and regular users have [twice the normal risk](#) for it. It can also trigger [anxiety](#) or heighten existing anxiety. Meanwhile, [anxiety may increase between uses](#), and [anxiety attacks may occur while using](#).
9. TRUE. Among other things, marijuana can cause [psychosis](#), [paranoia](#), [schizophrenia](#), and [suicidal tendencies and thoughts](#). If you notice any such behavior, investigate it further (or get immediate medical attention if suicidal intent is expressed), because it may be caused by marijuana use.
10. FALSE. Although it's true that fewer females use marijuana than males, marijuana does not respect gender. Some argue females aren't as comfortable with marijuana use as males, or males are just more adventurous or more likely to do dangerous things. The truth: according to the [2014](#) and [2018](#) National Surveys of Drug Use, those who had used in the last month and last year were, on average, 39-43% female. That's not much of a minority; girls use marijuana *almost* as often as boys.

The Upshot

How well did you do?

Marijuana is a much more dangerous drug than many people realize. If you think your teen may be using marijuana, review the above questions and answers closely. You may discover it's easier for kids to slip by with their marijuana use than you ever imagined.

And remember this: today's pot isn't the weak grass you may have tried in college. These days, the THC-content in marijuana products is much higher than ever, due to selective breeding of marijuana plants, and deliberate concentration in some products, which is a new class of drugs. [Today's marijuana can be deadly](#).



Is Marijuana Medicine?

By Laura Stack

Teens may have heard incorrectly that marijuana can help them get over negative things happening their lives. Some people claim cannabis is a miracle drug, with few negative effects; however, their claims are mostly wishful thinking and marketing tactics to get a new generation addicted to their products. It's important for you as their parent, grandparent, or loved one to understand the difference between short-term symptom relief and long-term problems caused by *using* marijuana. When you're educated, you can knowledgeably explain the dangers to them and get them proper medications if needed with a legitimate prescription.

Despite popular belief, it's rare for people to receive a real prescription for marijuana as medicine. If your teen were to receive an actual prescription, it would be in pill or liquid form, not weed you can smoke or dabs you inhale.

Here's a list of [all the cannabis-derived drugs](#) approved by the U.S. Food and Drug Administration (FDA) as of September 2020:

1. [Epidiolex](#) (this is NOT THC, which gets you high; it's only cannabidiol CBD, which does not get you high)

That's it. The FDA has also approved three other drugs containing *synthetic* cannabidiol (CBD):

1. [Marinol](#) (dronabinol)
2. [Syndros](#) (dronabinol)
3. [Cesamet](#) (nabilone)

These three FDA-approved uses of CBD are for two rare seizure disorders; nausea associated with chemotherapy; and the treatment of anorexia. Parents with children with these conditions are grateful for the ability to help their children. However, NONE of these prescriptions contain THC, the active ingredient in marijuana that gets you high. Epidiolex has CBD as an active ingredient, which doesn't get you high. In other words, *there are no FDA medically approved reasons to use marijuana products containing THC*. Your doctor can't give you a "prescription" outside of the FDA-approved reasons in the lists above.

You may be thinking, "Wait, didn't our ancestors use marijuana for supposed medical reasons?" Yes, but just because some groups reportedly used marijuana to treat pain and other maladies since ancient times doesn't mean we don't have more effective treatments now. For example, there's been research showing cannabis decreases [intraocular pressure in glaucoma patients](#), but the effects last just 3-4 hours. [There are much more effective treatments](#), and you don't have to deal with drug crashes or addiction.

As for pain, numerous studies have concluded that [smoking pot doesn't decrease pain](#) any better than a taking a sugar pill. Others have shown that, at best, cannabis works [about as well as codeine](#)—and some of the relief reported may result from the [placebo effect](#). Unless you're after a high, why use weed for pain if codeine is cheaper? On the other hand, cannabis use can [increase pain sensitivity](#) for some kinds of traumatic pain.

In time, researchers and pharmaceutical companies may approve new cannabis-related drugs for additional uses, but that time has not yet come. When it does, any new medicines will mostly likely be pills or liquids, not resembling recreation marijuana products such as dabs or smoking weed in any way. If past experience holds true, they won't contain THC, either.

But What About Medical Marijuana Cards?

So, getting a "med card" for marijuana is about your teen wanting to get high for self-diagnosed problems, *outside* of the approved medical uses.

Medical marijuana dispensaries require a medical card for purchase of cannabis products in the 33 states (and DC) where medical marijuana is legal. If you're over 18, believe you need it for some "medical" purpose, and a doctor agrees, you're in. Teens can go to a "[weed clinic](#)" that exists solely to provide users with medical marijuana cards. The marijuana exam fee costs [\\$50 to \\$200 without insurance](#), sometimes [a bit more](#). Once approved, the card is usually good for a year, although some states, like Arizona, now have [two-year cards](#). The fee for registering a "[weed card](#)" varies from \$0 to \$200. In some states, federal or state subsidized health care pays part of the fee, while in West Virginia, the state may waive the fee if you can prove hardship.

While it is illegal for any teen to use marijuana recreationally until 21 years old, they try to get around it by getting a med card at the age of 18. But med cards are hardly the cure-all teens might think. Yes, getting high may make them temporarily forget their problems, but that just means they don't care for a while—it doesn't fix their problems. Marijuana isn't medicine—it's numbness. Your issues are still there when you come down off your high. Teens may feel good when first trying it (if they don't experience psychosis), but those happy feelings are short-lived.

It Gets Worse

Teens may perceive marijuana may help them "chill out" if they are feeling anxious; but in fact, [marijuana will](#)

[cause them to feel MORE anxious in the long term](#). In fact, marijuana used by adolescents is quite dangerous for their brain development and mental health. We know for certain that cannabis use can cause severe psychological and physical effects in both the short- and long-term. This is especially true for modern cannabis, which may contain up to 90-95% THC. Low-end effects start with [compromised judgment](#), [permanently lowered IQ](#), and [loss of motivation](#) but can scale up to [anxiety](#) (including [panic attacks](#) between uses, often due to [cannabis-induced anxiety disorder](#)), [depression](#), [psychosis](#), [paranoia](#), and a much greater risks for [schizophrenia](#) and [suicidal thoughts and behavior](#) in the long-term.

Too much marijuana is simply poisonous: [marijuana toxicity](#) causes nausea, vomiting, panic, anxiety, high blood pressure, confusion, and most of the other symptoms some people seek to treat with medical marijuana. Some frequent users suffer [cannabinoid hyperemesis syndrome \(CHS\)](#), which can, in rare cases, lead to death by dehydration.

Don't Fall For It

Teens may be able to find a doctor willing to give them med cards if they are over 18. If a doctor honestly believes cannabis has *medicinal* effects (anxiety, stress) in its *recreational* forms (THC), it isn't supported by significant scientific proof or FDA approval. If your teen's "medicine" contains THC, it isn't medicine. It arrests the development of the adolescent mind until it's fully formed at nearly 30 years old.

Some unwary parents help their teens to obtain a med card or even buy marijuana for them if they don't have cards. Now you know the best way to help your child is to take him or her to a licensed psychiatrist for a federally approved medicine or treatment, not marijuana.



Adolescent Marijuana Use in 2019: Results from the National Survey on Drug Use and Health (NSDUH)

By Laura Stack

Since 1971, the National Survey on Drug Use and Health (NSDUH) has tracked substance use and related health issues in the United States as a whole, under the auspices of the Substance Abuse and Mental Health Services Administration (SAMHSA). The substances tracked include not only illicit drugs, but also alcohol, tobacco, and now kratom, an Asian herb believed to be potentially dangerous. Marijuana was just one of the substances asked about. Also tracked are substance use disorders (SUDs), substance use treatment, use of mental health services, and generalized mental health issues associated with substance abuse. The intent of the NSDUH is to help policymakers, researchers, clinicians, and the public better understand the current situation so they can make more informed decisions.

[The 2019 report](#), which was published in September 2020, bases its data on 67,625 interviews from respondents aged 12 or older, collected from households all over the United States. One of the segments of the population it surveys are individuals aged 12-17; 16,894 interviews were conducted with adolescents in this age range. All the above substances are illicit for adolescents and potentially dangerous to their mental health.

A Quick Reminder

After alcohol, marijuana is America's second most popular drug, and as such has been the subject of many studies over the years. Marijuana causes its own recognized SUD, Cannabis Use Disorder (also called Marijuana Use Disorder), of which addiction is a subset.

Based on peer-reviewed research, we know that cannabis use [interferes with the development of the prefrontal cortex](#) of the brain in anyone until the mid-20s. Marijuana use until then can cause a wide variety of

negative effects, including a greatly [increased risk of schizophrenia](#) (seven times normal); increases in [suicidal thought and behavior](#) (five times the norm); [anxiety](#) and [panic attacks](#); [paranoia](#); [psychosis](#); a [loss of as many as 6-8 IQ points](#) after prolonged use; and [marijuana toxicity](#).

Survey Says...

According to [the 2019 NSDUH](#), the percentage of adolescents who self-reported using marijuana products in the past year has increased to 13.2% 2019 from 12.5% in 2018. We will need to see next year's data to see if this is a trend.

An estimate that has remained relatively steady since 2002 for the 12-17 ages group is the number of "marijuana initiates," i.e., those who reported that they first started using marijuana in the past year. However, this number peaked in 2019 to 1.4 million youths from 1.3 million in 2018. So, more than 100,000 youth tried marijuana last year than ever before. To put it in perspective, that's 3,700 youth per day trying marijuana for the first time! Let that sink in.

As pointed out in the report, "One factor that can influence whether people will use tobacco, alcohol, or illicit drugs is the extent to which they believe that using these substances might cause harm." The respondents were asked how they felt about the risk of using specific substances ones or twice weekly or daily (depending on the substance). There was a steady decline in the percentage of youth who believed that using marijuana presented "great risk." In adolescents, the total dropped from 40.6% in 2015 to 34.6% in 2019. This is due to the narrative they're exposed to trying to convince them it's safe and thereby addict the next generation of users. Marijuana was considered the least harmful of all substances asked about, including alcohol, tobacco, heroin, and cocaine. To put this in perspective, the alcohol and tobacco were presented as great risks if imbibed daily, with marijuana and the other drugs taken weekly. Sadly, the perception of "great risk" for *all* substances, including cocaine and heroin, has dropped annually since 2017.

Marijuana and Mental Health

According to the NSDUH survey, the occurrence of Marijuana Use Disorder (a.k.a. Cannabis Use Disorder), which had been dropping steady among the adolescent cohort since 2011, rose sharply in 2019. In 2018, it was 2.1%; in 2019, 2.8%. That may not seem like a big deal, but my son Johnny is included in that estimate of 699,000 more kids. The survey for 2020 will help determine whether this was a fluke or the beginning of a trend.

In any case, MUD presents a significantly higher figure for 2019 than any other substance use disorders covered, including alcohol use disorder (which has declined significantly in recent years). That 2.8% accounts for most of the 3.6% of responding adolescents with SUDs for illicit drugs. Other SUDs covered included those for heroin, cocaine, stimulants, methamphetamines, and opioid pain relievers.

In terms of depression, 1.6 million adolescents reported having experienced a Major Depressive Episode (MDE) for which they received treatment, which is a bit higher than recent years. Of those 1.6 million, 1.3 million reported a severe impairment with their MDE. Of course, marijuana can cause [depression](#) in adolescents.

Conclusions

According to the [2019 NSDUH survey](#), self-reported marijuana use rose in 2019 for kids 12-17, though it has not yet risen to its 2002-2004 levels. This may not seem like such bad news, but to some extent, the statistics may be an artifact of (a) the way the data was collected (self-reporting) and (b) the way the data was broken down and presented. MUD represented a disproportionate percentage of all SUDs, especially when compared to Alcohol Use Disorder (AUD) and Opioid Use Disorder (OUD).

Incidentally, the next older group, individuals 18-25 (young adults) still includes young people in the danger zone of under 21. That group has much higher use ratios than any other—so much so that the next age group for each category was usually 26+, which had statistical rates about the same as or lower than the adolescent group. Of course, young people 18-21 tend to have much more free agency than younger cohorts, as most are out of their parental home by then and often in situations (college, military, etc.) where they can acquire the substances discussed more easily.

Overall, the NSDUH does offer valuable information, but I feel it would be more useful if more focus was placed on marijuana's effects of mental health, with some discussion of how many sufferers of MUD attempted to get or received aid during the previous year.

We, as concerned parents and citizens, must continue to make our voices heard! [Please join Johnny's Ambassadors](#) in educating parents and teens about the dangers of today's high-THC marijuana on adolescent brain development and suicide!



Marijuana Legalization: the SAM Report for 2020

By Laura Stack

According to the annual LESSONS LEARNED FROM STATE MARIJUANA LEGALIZATION report from marijuana industry watchdog [Smart Approaches to Marijuana](https://www.johnnysambassadors.org) (SAM), cannabis is on its way to becoming the next Big Tobacco. In Colorado where I live, recreational use of marijuana has been legal since 2012 and widely available in 2014, when Johnny was 14 years old and started experimenting. Now in 2020, there are [far more marijuana-based businesses than Starbucks and McDonalds franchises combined](https://www.johnnysambassadors.org) (1,012 to 600)—as difficult as that may be to believe.

In this 2020-2021 edition, SAM continues to track the advancing wave of marijuana legalization in the U.S., as well as the trends associated with it. One such trend is the decreasing perception of the harms of marijuana. More than 20,000 journal articles have been released thus far detailing the negative effects of marijuana, along with multitudes of reports at the state and national levels dealing with the repercussions of statewide legalization, yet nothing serious has been done to limit potency or keep it away from our children.

Marijuana and our Youth

For the 12- to 17-year-old age group, an estimated [1.1 million to 1.4 million “new initiates” first started using marijuana](https://www.johnnysambassadors.org) in the past year each year since 2002. At least new cigarette smokers know the risks; how could they not after decades of warnings? But the risks of marijuana use have yet to be widely publicized.

The situation is dire among the age group from 12-17, and it becomes worse as youths reach legal adulthood at 18. Although 21 is the legal age for drinking, smoking, and marijuana use, young people who are away from their families for the first time typically have greater access to these substances and less oversight.

As emphasized by the SAM report, users under age 21 are hit especially hard by marijuana. As we've discussed in previous blog articles, hard scientific evidence proves that marijuana [interferes with the development of the prefrontal cortex](#) of the brain, resulting in [increased risk of schizophrenia](#), [suicidal thought and behavior](#), [anxiety](#), [panic attacks](#), [depression](#), [paranoia](#), [psychosis](#), and more. All this is more likely to occur with modern pot, which is much more potent than past varieties. Most flower marijuana on the legal market (including medical marijuana) contains [more than 15% THC and up to 35%](#), and some concentrated marijuana products have THC potency as high as [90-95%](#).

Vaping is a popular method of marijuana use among young people. A concerning trend was the sudden increase in vape-related respiratory ailments, known collectively as [EVALI](#) (e-cigarette or vaping product use-associated lung injury). EVALI has claimed over 70 lives, with over 2,700 known cases in the U.S., often with life-long effects. Many of these cases seem to have been caused by contaminated THC vape solutions or by Vitamin-E thickening compounds. While the CDC recommends that users [avoid vaping altogether](#), according to SAM, the response by the marijuana industry has been that the only way to insure non-contaminated THC solutions is to legalize and regulate it.

If someone is 21 or older and wants to take their chances as an adult who is well-informed of the consequences, they have the legal right to do so in an increasing number of states. The problem is that in states where legalization of recreational marijuana has become well established, usage rates have increased all across the board for people of *all* ages, so it damages our children.

For example, studies have shown that legalization of recreational marijuana use results in up to a [six-fold increase](#) in self-reported past-year marijuana use among adolescents. The prevalence of Marijuana Use Disorder (a.k.a. Cannabis Use Disorder) has [increased by 25% among kids 12-17 years old](#) since full legalization. Underage dabbing of high-potency concentrates has also shown a striking increase among teens who use; the total has climbed above 30% for kids in Oregon and Colorado. Worse, there seems to be a direct link between adolescent marijuana use and other drug use, especially [later opioid abuse](#). Having ever used marijuana in a lifetime is the greatest predictor of current 30-day opioid use in high schoolers – even more than current 30 day alcohol use – so marijuana is the reigning [gateway drug](#).

The Bottom Line

To paraphrase the Supreme Court regarding the right of free speech in times of war, marijuana presents a “clear and present danger” to American adolescents. Unfortunately, while this test has been applied to free speech, it has not been adequately applied to legalized marijuana use at the state level. Indeed, even though marijuana remains completely illegal at a federal level, federal protections—or at least the political will to enforce them—have seemingly melted away in recent years.

The legality of recreational marijuana and its ease of access hurts our young people at a disproportionately high rate. Please don't try to tell me, “Oh, teens can't get a hold of it.” That is so untrue it makes me laugh aloud. Any high schooler can have weed within five minutes. The 18-year-old seniors get med cards and then sell it to the younger teens—everyone knows who their high school drug dealer is—ours was Johnny. Users also usually sell. The consumer demographic skews toward our teens, as the industry needs to addict its next generation of users.

Ironically, most of the municipalities, cities, and county in states where marijuana has been fully legalized don't even *want* it to be legal, and they have banned it. In California, [80% of localities](#) have banned marijuana. In my home state of Colorado, [64% of localities](#) have "opted out" of legal sales.

It took decades for the effects of smoking to be understood. How much evidence must accrue, and how many generations of our young people must we lose, before we crack down on marijuana?



Marijuana and the Results of the 2019 YRBSS Survey

By Laura Stack

Every other year since 1991, the Centers for Disease Control and Prevention (CDC) have conducted [a study of youth behavior](#) in six significant categories, with the intention of monitoring and managing negative behavior. One of the categories they monitor is Alcohol and Other Drug Use.

The [Youth Risk Behavior Surveillance System \(YRBSS\)](#) last monitored these categories in 2019, with a series of “national, state, territorial, tribal government, and local school-based surveys of representative samples of [9th through 12th grade students](#),” in conjunction with a much larger sample of [middle school students](#) from a smaller number of interested localities. The adolescents involved were aged 13-17.

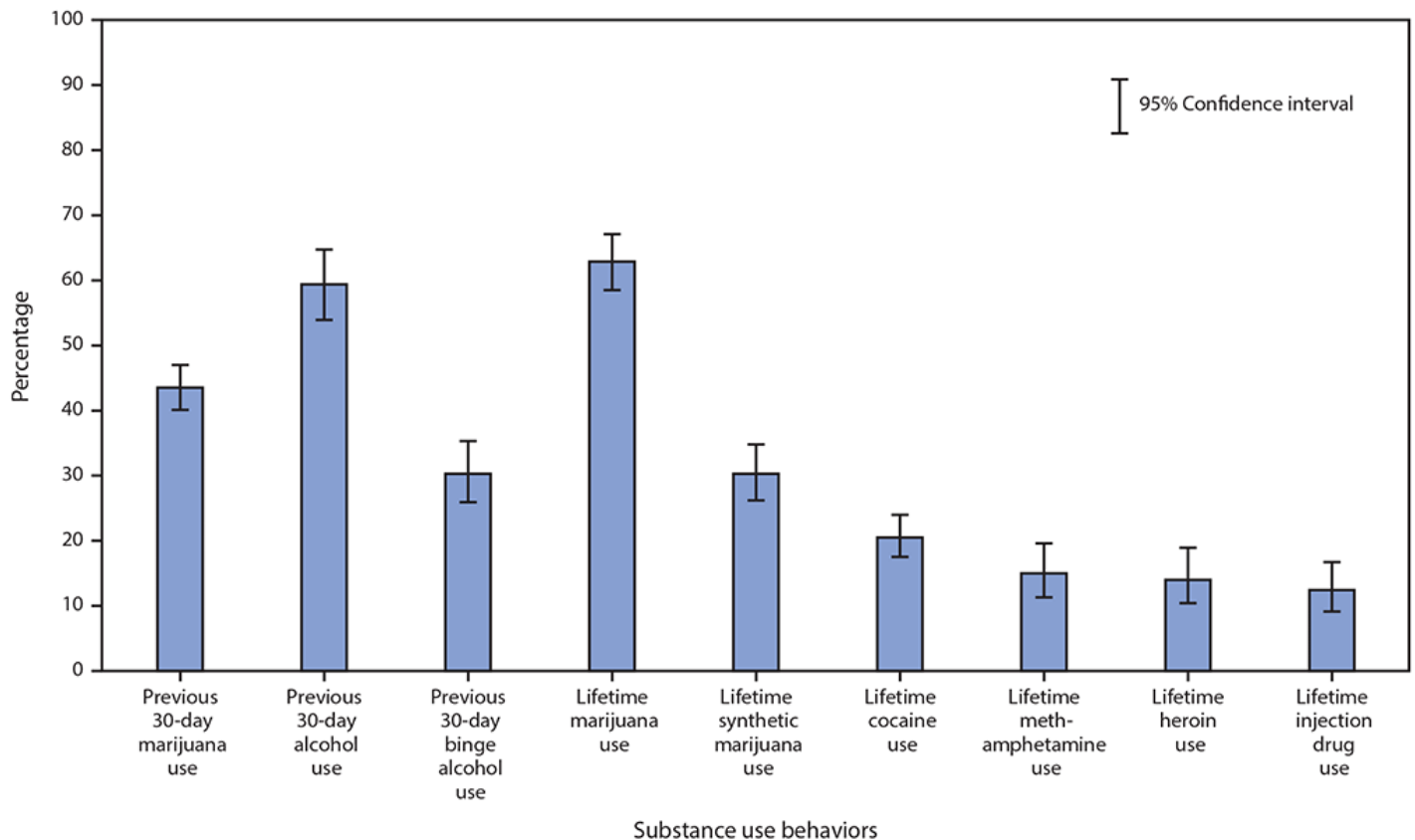
During each survey, students self-report their behavior on pencil-and-paper questionnaires completed during a single class period. About 4.9 million high school students have completed the questionnaire since 1991. The CDC has estimated the reliability of the questionnaire as good, though they note that students tend to under-report their weight and over-report their heights. In 2019, the YBRSS received 13,677 usable questionnaires from high school students from almost every community in the country, and over 83,000 from middle schoolers in selected cities, states, and territories.

Here are some data from the high school group:

- 36.8% reported lifetime marijuana use.
- 21.7% reported current use (17.1% of 9th and tenth graders and 26.6% of eleventh and twelfth graders)

- No significant differences in use between boys and girls
- Asian-Americans had the lowest use rate at 14.7%; Native Americans topped the list with 48.3%.
- An average of 5.6% of students reported using marijuana before age 13.

While the above may be startling, the most troubling factor to rise out of the data was the *association between teen marijuana use and prescription opioid misuse*: HAVING EVER USED marijuana was the TOP co-occurring substance use behavior for high school teens who have abused opioids in the past 30 days, even OVER ALCOHOL use in the past 30 days. See the figure below.



CDC TABLE: Percentage of co-occurring substance use behaviors among high school students who reported previous 30-day prescription opioid misuse* — Youth Risk Behavior Survey, United States, 2019

Let that sink in—*marijuana is now the biggest gateway drug*. Whether a high schooler has *ever* used marijuana in the past is the most common behavior of those who abused opioids in the past 30 days.

Dr. Kevin Sabet, president of Smart Approaches to Marijuana (SAM) and a former three-time White House drug policy advisor said, “This survey confirms a trend we have been noticing: every other drug among young people is going down with the exception of marijuana...we have to understand that drug use does not happen in a vacuum – co-use is a real phenomenon.”

Discouraging marijuana use, then, should help discourage other drug behaviors. While this may seem obvious, a growing false assumption is that marijuana is not a dangerous drug for children, because hey, we did it when

we were kids. Understand that today's marijuana is HIGHLY POTENT, and many marijuana products have the raw THC extracted into dabs, shatters, and waxes. Children are highly vulnerable to marijuana use, as it impacts their developing young minds.

Quick recap: marijuana's cannabinoid chemicals take the place of natural brain chemicals called endocannabinoids, acting as a [dimmer switch for the affected neurons](#). In adolescent users, it [hinders brain development](#), causing everything from a [permanent decrease in IQ](#) to [increased risk of schizophrenia](#) and [suicidal thought and behavior](#). In between are [anxiety](#) and [panic attacks](#); [depression](#); [paranoia](#); [psychosis](#); and [marijuana toxicity](#).

Just because it grows out of the earth doesn't make it safe. Many other things that grow in the ground are toxic, including deadly nightshade, oleander, and poison ivy, or they can also be made into drugs like poppy. Rattlesnakes and arsenic are natural, too.

The CDC report states: "Specifically, the high rates of co-occurring substance use, especially alcohol and marijuana use, among students currently misusing prescription opioids highlights the importance of prevention efforts that focus on general substance use risk and protective factors."

Clearly, it's time to step up our anti-marijuana programs and activities, starting younger and striking hardest in minority communities. Please help Johnny's Ambassadors continue to raise needed funds to develop our anti-marijuana curriculum for teens!

Johnny's Ambassadors, Inc. Donation Card

Please accept my donation to support Johnny's Ambassadors at the following level:

____ One-time gift of \$50

____ \$50/month

____ \$1,000 lump sum

____ \$2,500 lump sum

____ Other amount: \$ _____

Name: _____

Address: _____

City,State,ZIP: _____

Phone: _____

DONATE ONLINE: www.JohnnysAmbassadors.org/donate
Johnny's Ambassadors is a registered 501c3 nonprofit EIN: 85-0593925

Payment Method: ☐ Master Card ☐ VISA ☐ AMEX ☐ Cash ☐ Check

Credit Card number: _____

Expiration date: _____

PIN: _____

Name on card: _____

Signature: _____

You can also mail this form and your check made out to Johnny's
Ambassadors, Inc. to 9948 Cottoncreek Drive, Highlands Ranch, CO 80130