



What You Need to Know And How to Talk With Your Kids About Vaping

Introduction

Although it has been around for over a decade, vaping’s popularity exploded in 2017, taking many families, schools and healthcare providers by surprise. Vaping, or Juuling as it is often referred to by teens and young adults (named after a popular vape device called JUUL), is the inhaling and exhaling of an aerosol produced by using a vape device.

According to the University of Michigan’s 2017 Monitoring the Future study, nearly 1 in 3 high school seniors tried vaping in the past year. With advertising geared toward teens and young adults, brightly colored vape pens and thousands of flavors to choose from, the expectation is that growth will continue. Some estimate that the market will be worth over \$60 billion by 2025.

For every story or article touting the benefits of vaping, there are an equal number raising concerns about the risks of vaping, especially for teens and young adults. **This guide is intended to help you understand what vaping is, its appeal to youth and what research has to say about both the risks and unknowns, due to the lack of long-term vaping studies.** We’ve identified some signs to look for and what to do if you are concerned that your child may try or actually is vaping. Lastly, we offer some advice on what to say when talking with your child about vaping.

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Teen using a JUUL

Nearly 1 in 3
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Monitoring the Future, 2017

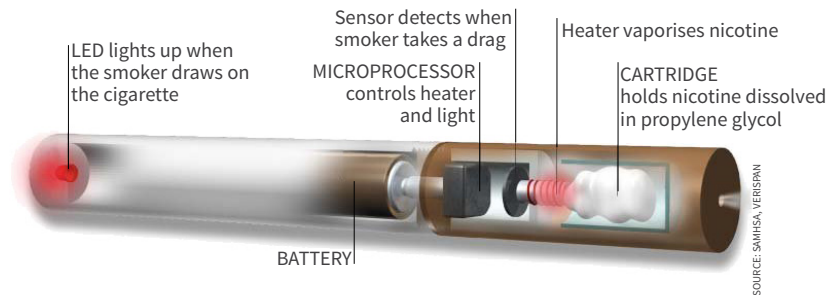
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What is Vaping?

Vaping is the act of inhaling and exhaling aerosol or vapor produced by a vape device. Because of the rise in popularity of JUUL, a specific type of vape device, many teens and young adults use the term “JUULING” (pronounced Jewelring), instead of vaping.

How Does Vaping Work?

Vape devices, known as *e-cigs*, *e-hookahs*, *mods*, *vape pens*, *vapes*, *tank systems* and *Juuls*, contain 4 basic components: a cartridge or a tank to hold e-liquid (or e-juice/vape sauce), a heating element known as an atomizer, a battery and a mouthpiece to inhale.



A sensor detects when a person is trying to inhale. This triggers the battery to supply electricity to the coil of wire or the atomizer. The heat given off by the coil is transferred to the e-liquid, which can only take so much energy before it’s vaporized, and this is what users inhale. While the output of the devices may look like smoke, it is actually vapor.

What Do Vape Devices Look Like?

Some vape devices look like regular cigarettes, cigars or pipes while others resemble USB sticks and other everyday objects like a guitar pick. Larger devices such as tank systems, or “mods,” do not look like other tobacco products. Instead, they look more like a small cellphone. Some devices can be thrown away, while others can be reused by charging the device on the USB port of a computer or elsewhere and replacing the e-liquid, either by filling the chamber or using a self-contained pod.

What Is Being Vaped?

Although many substances can be vaped, three are most common: flavored e-liquids, flavored e-liquids with nicotine, and marijuana. The e-liquids come

Vape devices can look like regular cigarettes, cigars or pipes, while others resemble USB sticks, guitar picks and a small cellphone.



Vape pens generally are available for \$20 and up. Current pricing for the JUUL starter kit is \$49.99, which includes the device, a charger, and 4 flavored pods.

in small bottles or in pre-filled pods or cartridges. Pods are the component that contain the e-liquid.

1. **Flavored e-liquids** come in thousands of flavors, including bubble gum, cotton candy and grape, but also hot dog, banana bread and King Crab legs.
2. **Flavored e-liquids may also contain different levels of nicotine**, ranging from 2mg/ml to 59mg/ml. One of the more popular vape devices, Juul, contains 59mg/ml of nicotine in each pod. Each Juul pod is equal to one pack of cigarettes.
3. **Marijuana** can be vaped in both the leaf form or using THC and/or CBD oil. THC is the psychoactive compound in marijuana that creates a sense of being high.



Flavors are one of the biggest attractions for vaping.

What Is Vaping's Appeal?

Although vaping was intended to be a less harmful option for adult smokers, teens and young adults have embraced it for several reasons. First and foremost is a sense of curiosity, followed by the many kid-oriented flavors offered.

It's not uncommon for kids to try out each other's vapes at parties to check out flavors like German Chocolate Cake or Banana Split and then post vaping videos on social media.

Teens are increasingly becoming interested in "cloud competitions," in which adults compete to perform the best vaping tricks. In addition to being featured on social media, cloud competitions are becoming a regular feature at local vape shops with some offering thousands of dollars in prize money.



Vaping tricks are another major attraction of vaping.

Boredom is another reason cited by many teens. It can be habit-forming, much in the same way teens check their phones in free moments. It's easy to take a quick puff.

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Each Juul pod contains 59 mg/ml of nicotine, equivalent to one pack of cigarettes.
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Is Vaping Safe?

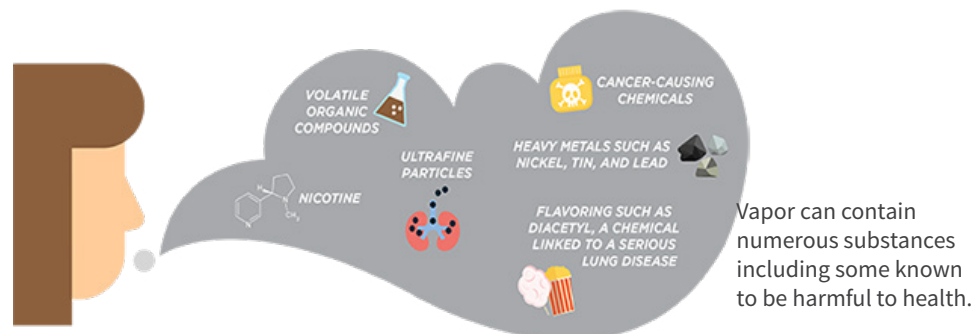
The short answer is that vaping isn't considered safe for teens and young adults, especially since their brains are still developing. Vaping is a relatively new phenomenon. As a result, long-term studies that examine its impact on teen and young adult health and behavior have yet to be concluded.

The most comprehensive research to date is a [report](#) commissioned by Congress from the National Academies of Sciences, Engineering and Medicine. Released in January 2018, the report looked at exposure to nicotine and other toxic substances, dependence, harm reduction, smoking risks, cancer and more. Below is a summary of their findings, based on "conclusive" or "substantial" evidence.

! Exposure to Nicotine

Nicotine is a stimulant that activates the nervous system to prepare the body for physical and mental activity. It causes one's breathing to become more rapid and shallow, as well as increases heart rate and blood pressure. The committee reported that nicotine exposure from e-cigarettes varies considerably depending upon the contents of the e-liquid, the type of device that's used and how it is operated.

Nicotine exposure in teens and young adults is worrisome because nicotine can be highly addictive. Due to the fact that the brain is undergoing massive changes during adolescence through the mid- to late 20's, nicotine use may rewire the brain, making it easier to get hooked on other substances and contribute to problems with concentration, learning and impulse control.



! Exposure to Toxic Substances

The report highlights that most e-cigarettes contain and release a number of potentially toxic substances, although exposure to these substances is considerably lower than those found in regular cigarettes.



Is vaping safe? Watch this short video from the CDC.

Vaping isn't considered safe for teens and young adults, especially since their brains are still developing.

Dependence

Dependence develops when the body adapts to repeated exposure to vaping. When a person stops vaping, he or she can experience withdrawal symptoms, although likely not as intense as those associated with conventional cigarette smoking. The Congressional study reported that e-cigarettes may result in dependence and showed “moderate evidence” that differences in e-cigarette products – including nicotine concentration, flavorings, device type and brand – play a key role in determining the risk and severity of dependence.

Harm Reduction

Replacing e-cigarettes for conventional cigarettes reduces users’ exposure to the many harmful substances in combustible cigarettes. Recently, however, concerns have surfaced that rather than decreasing cigarette use, some smokers are using both. They are vaping when they can’t smoke.

Smoking Risks

There is worry that teens and young adults who use e-cigarettes will increase their risk of smoking. Teens and young adults who vape are almost 4 times as likely as their non-vaping peers to begin smoking traditional cigarettes, according to [a review published online in JAMA Pediatrics](#).

Injuries and Poisonings

Vape devices, especially those with poor quality batteries, or that have been stored improperly or modified by the user, can explode resulting in burns and other injuries. Exposure to e-liquids from drinking, either on purpose or by accident, eye or skin contact, or injection can result in seizures, brain injury due to lack of oxygen, vomiting, problems related to lactic acid buildup in the body or death.

Cancer and Respiratory Effects

No data was cited as to whether or not vaping causes cancer or respiratory diseases. Long-term studies are needed as these diseases take years to develop. There is some concern though that vaping can increase coughing and wheezing in teens and may exacerbate asthma.

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Concerns have surfaced that rather than decreasing cigarette use, some smokers are using both—vaping when they can’t smoke.
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Marijuana and Vaping

Although the committee’s report did not cover marijuana vaping, it is also of concern for adolescents and young adults. Selling equipment to vape marijuana in dab (concentrated wax-like substance) or oil or leaf form is a booming business with many new players.

For example, Pax Labs, formerly Ploom, was founded in 2007 and is a relatively well-known brand for vaping dry leaf marijuana. The company has introduced the Pax 3, which they describe as the “Apple iPhone” of vaporizers as it allows you to vape both dry leaf and wax concentrates. It includes a free Android or iOS app to control temperature, play free games, manage firmware and lock the device.

In California, a company called EAZE sells disposable all-in-one marijuana vape pens and cartridges. Flavors include Blueberry Kush, Lemon OG and Mango Passion Fruit. They market these as wellness products with advertising that reads, “Hello Marijuana, Goodbye Insomnia” or “Hello Marijuana, Goodbye Hangover.”

Juul can also be used to vape marijuana; however, it should be noted that as of now, Juul does not offer marijuana products. The device has to be hacked in order to use it with THC oils. There are also [companies making pods that fit a Juul](#), so a THC oil pod may be in the future.

According to the [CDC](#), marijuana use may have long-lasting or permanent effects on the developing adolescent brain. **Negative effects include:**

- Difficulty with critical thinking skills like attention, problem-solving and memory
- Impaired reaction time and coordination, especially as it relates to driving
- Decline in school performance
- Increased risk of mental health issues including depression or anxiety, and in some cases, psychosis where there is a family history

Research also shows that about 1 in 6 teens who repeatedly use marijuana can become addicted, as compared to 1 in 9 adults. Further, kids who vape are more likely to use combustible cigarettes and try marijuana than their non-vaping peers.



Dab, a concentrated form of marijuana with dab tool



Vape Pen used with THC oil

How Is Vaping Regulated?

Vaping is illegal for anyone under the age of 18, although in some states the age restriction is 21. Up until 2016, there was little if any regulation of the vaping industry. At that time, the Food and Drug Administration (FDA) introduced the “Deeming Rule,” which placed oversight of vaping products with the organization. In addition to the requirement to check ID, merchants are prohibited from giving away free samples, using vending machines (unless in establishments that don’t allow minors) and claiming that products are safer alternatives to other tobacco products. As of 2018, nicotine warning labels must be on vaping products and they must list all ingredients.

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Vaping is illegal for anyone under the age of 18, and in some states under 21.

What Should Parents Know

What Are the Signs of Vaping?

Although sometimes more subtle, there are clues to look for to see if your child is vaping:

Equipment	You may find devices that look like flash drives, e-juice bottles, pods (that contain e-juice) or product packaging. Aside from leaf marijuana, gel jars that contain dabs, small tools to scoop dabs and cartridges that contain THC oil are signs of vaping marijuana.
Online purchases / packages in the mail / store purchases	Be on the lookout for purchases made online and charged to your credit card or unusual packages that arrive in the mail. Kids also buy them at big box stores, gas stations or from other friends.
Scent	While the smell from vaping is faint, you may catch a whiff of a flavoring where there appears to be no other source. For example, if you smell bubble gum or chocolate cake, take note.
Increased thirst / nose bleeds	Some of the chemicals used in e-juices have the effect of drying out the mouth and nasal passages. As a result, some kids drink more liquids or seem more prone to nose bleeds.
Decreased caffeine use	Some teens and young adults develop a sensitivity to caffeine. If your child drank caffeinated energy drinks and quits, it may be as a result of vaping.
Vaping lingo	You may see vape lingo in text messages such as “atty” for an atomizer, “VG” for vegetable glycerin found in e-juice or “sauce” referring to e-juice. Kids often brag about their vaping exploits on social media. Look for pictures on Instagram or YouTube or check their Twitter accounts.
Appearance and behavior changes	Just like smoking, vaping marijuana can result in bloodshot eyes, dry mouth and thirst, increased appetite and shifts in behavior and mood. Sometimes, there is a noticeable change in friends and a decrease in activities that were once enjoyed.

What Can Parents Do to Safeguard Against Vaping?

Be equipped with the facts

Reading through this resource, perhaps more than once, will help you understand the vaping landscape. It's important to be familiar with vape devices (especially JUUL due to its popularity), what's being vaped (i.e. flavorings, nicotine and/or marijuana) and the associated risks.

Have conversations

Look for opportunities to discuss vaping with your child. Opportunities may present themselves in numerous ways: letters from the school about vaping policies, advertisements, seeing someone vaping on TV, walking by someone who creates a huge cloud on the street or passing a vape shop. Be ready to listen rather than give a lecture. Try using open-ended questions to get the conversation going such as, "What do you think about vaping?"

Try to understand why

Most kids start vaping due to curiosity, the flavors, cloud tricks, wanting to fit in, etc. Over time, vaping can become habitual as it is used to address other needs such as relief from boredom and anxiety. Some kids also become addicted to nicotine and continue vaping to avoid withdrawal symptoms. It helps to understand why your child is vaping by asking questions like: "What do you enjoy about vaping?" or "How does vaping make you feel?" Answers to these questions highlight your child's needs that can be addressed in a healthier way.

Convey your expectations

Set clear expectations. Express your understanding of the risks, but also why a person might want to vape. Share why you don't want your child vaping (i.e. concern about toxins, nicotine, marijuana, unknown health risks, injuries due to batteries, gateway to cigarette smoking). If you choose to set consequences, be sure to follow through, while reinforcing healthier choices.

Role play refusal skills

If you have a younger teen, it may help to teach your child refusal skills. After all, if your child is in middle school or older, they are likely to be in social situations where they are offered an opportunity to try a flavor. You might ask, "What would you say if someone offered you their vape?" See how your child would handle the situation. Practicing something along the lines of "No thanks, I'm not interested," said with direct eye contact and assertive body language can help your child be prepared.

Be a good role model

Set a positive example by being vape and tobacco-free. If you do vape, keep your equipment and supplies secured.

What to Say When Your Teen Asks:

Q: *Isn't vaping safer than smoking cigarettes?*

Your child is exposed to less toxic substances when vaping (as compared to smoking), but there are still significant concerns. Their lungs are exposed to fine particles, metals, other toxins and nicotine which can harm them. You may use the example that, "Driving 90 miles an hour with a seat belt on is safer than without one, but neither is safe. The same goes for vaping. It may be a safer alternative than smoking cigarettes, but neither one is without harm."

Q: *They are just flavorings, so what's the big deal?*

Flavorings are common and considered safe when added to food and eaten, but relatively little is known about the long-term effects on your lungs. For example, there is a chemical called diacetyl that is used as a butter flavoring for candy, yogurt and popcorn, among other foods, and has been found in several e-juices. How these additives interact with the stomach is different than how it may affect your lungs. Diacetyl has been linked to "popcorn lung" which results in scarred lung tissue in workers who have inhaled diacetyl in popcorn factories. While there are no known cases of popcorn lung in people who vape, it typically takes years to develop.

Also, e-liquids contain more than just flavorings. Whether it contains nicotine or not, teens also may be taking in fine particles, metals and other toxins. In some cases, teens have vaped e-liquids thinking it didn't contain nicotine, when in fact it did. Deliberate or accidental exposure to e-liquids, whether from drinking, eye or skin contact or injecting it, can be severe, causing seizures or even death.

Q: *Everyone is doing it, so why do you care?*

You can say, "I know you may say this because of what you see in school or even on social media, but the real fact of the matter is that the majority of seniors (and more in lower grades) aren't vaping. While it may be a popular activity for some kids, it doesn't mean that it's safe."

Q: *I don't know what to say when other kids offer their vape to me to try.*

You can say, "Let's figure out what you may be comfortable saying. It's best to be direct and use assertive body language (i.e., direct eye contact with strong posture) and to say something like, 'No thanks, I'm not interested,' or 'You guys can, but I don't want to.'"

Another strategy for younger teens is to use an "X" policy. Whenever your child is in an uncomfortable situation and wants an easy out, they can text an "X." You can respond by texting back to say that something has come up and they must head home immediately, or you will pick them up.

Q: You smoke, so why shouldn't I?

If you've tried to quit, respond by saying "You're right, smoking is unhealthy and I've tried to quit and I wish I had never started. I don't want you to start an unhealthy habit and struggle the way I have to stop."

Q: It's legal, so why worry?

Vaping is not legal for anyone under 18 (and at 21 in some states). Many things are legal, but that doesn't mean they are safe or harmless.

Alcohol is an example of a legal substance, but can result in DUIs, car accidents and major health problems, including liver disease. Similarly, cigarettes are legal, but are highly addictive and proven to cause birth defects and cancer.

Q: I'm just doing it once in a while and nothing bad has happened.

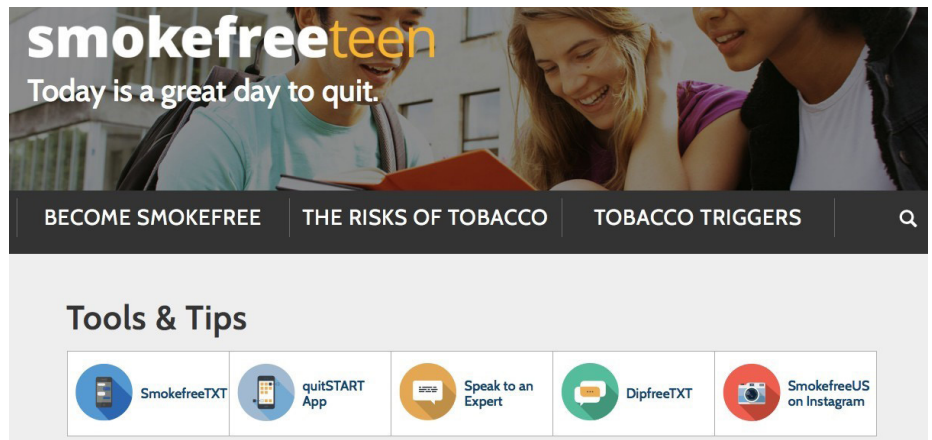
Respond by asking what your child's experience has been with vaping and pose a question like, "What keeps you from vaping more often?" This isn't to suggest you condone or approve of vaping, but rather to get a sense of what the barriers are to your child's use that you may be able to reinforce.

These open-ended questions can help you understand what your child sees as the pros, and potentially the cons, of vaping. Again, being clear about your expectations is helpful, in addition to reinforcing healthy behaviors that compete with vaping.

Resources

Where can I find more information on vaping?

- Check out the [U.S. Surgeon General’s Report](#) on E-Cigarette Use Among Youth and Young Adults.
- Help for your child: If your child vapes or smokes, visit teen.smokefree.gov for resources to help them quit including the quitSTART app and a text messaging program (Text “Quit” to 47848).



- You can also talk to an expert by calling 800-QUIT-NOW (800-784-8669). **Your child may respond to your concerns about vaping if they hear it from another trusted adult or medical professional.**

Connect with a Parent Helpline Specialist

Call 1-855-DRUGFREE

Visit drugfree.org/helpline

Text a question to **55753**

Donate to support

Resources like this Vaping Guide are available free of charge because of generous donors. Please consider making a donation at drugfree.org.

We appreciate your support.

Talk With Your Teen About E-cigarettes: A Tip Sheet For Parents



BEFORE THE TALK

Know the facts.

Get credible information about e-cigarettes and young people at E-cigarettes.SurgeonGeneral.gov.

Be patient and ready to listen.

- Avoid criticism and encourage an open dialogue.
- Remember, your goal is to have a conversation, not to deliver a lecture.
- It's OK for your conversation to take place over time, in bits and pieces.

Set a positive example by being tobacco-free.

If you use tobacco, it's never too late to quit. For free help visit smokefree.gov or call 1-800-QUIT-NOW.

START THE CONVERSATION

Find the right moment.

- A more natural discussion will increase the likelihood that your teen will listen. Rather than saying "we need to talk," you might ask your teen what he or she thinks about a situation you witness together, such as:
 - ⇒ Seeing someone use an e-cigarette in person or in a video.
 - ⇒ Passing an e-cigarette shop when you are walking or driving.
 - ⇒ Seeing an e-cigarette advertisement in a store or magazine or on the internet.

Ask for support.

- Not sure where to begin? Ask your health care provider to talk to your teen about the risks of e-cigarettes.
- You might also suggest that your teen talk with other trusted adults, such as relatives, teachers, faith leaders, coaches, or counselors whom you know are aware of the risks of e-cigarettes.
- These supportive adults can help reinforce your message as a parent.

ANSWER THEIR QUESTIONS

Here are some questions and comments you might get from your teen about e-cigarettes and some ideas about how you can answer them.

Why don't you want me to use e-cigarettes?

- Science shows that e-cigarettes contain ingredients that are addictive and could harm different parts of your body.
- Right now, your brain is still developing, which means you are more vulnerable to addiction. Many e-cigarettes contain nicotine, and using nicotine can change your brain to make you crave more nicotine. It can also affect your memory and concentration. I don't want that for you!
- E-cigarettes contain chemicals that are harmful. When people use e-cigarettes, they breathe in tiny particles that can harm their lungs.
- The cloud that people exhale from e-cigarettes can expose you to chemicals that are not safe to breathe.

What's the big deal about nicotine?

- Your brain is still developing until about age 25. The Surgeon General reported that nicotine is addictive and can harm your brain development.
- Using nicotine at your age may make it harder for you to concentrate, learn, or control your impulses.
- Nicotine can even train your brain to be more easily addicted to other drugs like meth and cocaine.
- I don't say this to scare you, but I want you to have the facts because nothing is more important to me than your health and safety.



Wheeler

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a program of the Connecticut Center
for Prevention, Wellness and Recovery

800.232.4424 (phone)

860.793.9813 (fax)

www.ctclearinghouse.org

A Library and Resource Center on Alcohol, Tobacco, Other Drugs, Mental Health and Wellness

Aren't e-cigarettes safer than conventional cigarettes?

- Because your brain is still developing, scientific studies show that it isn't safe for you to use any tobacco product that contains nicotine, including e-cigarettes.
- Whether you get nicotine from an e-cigarette or a cigarette, it's still risky.
- Some e-cigarette batteries have even exploded and hurt people.

I thought e-cigarettes didn't have nicotine – just water and flavoring?

- I used to think that too. But many e-cigarettes have nicotine. There are also other chemicals in them that can be harmful.
- Let's look at the Surgeon General's website on e-cigarettes (E-cigarettes.SurgeonGeneral.gov) together so you can see for yourself.

I (or my friends) have tried e-cigarettes and it was no big deal.

- I appreciate your honesty. In the future, I hope you (or your friends) will stay away from e-cigarettes and other tobacco products, including cigarettes. Science shows that e-cigarettes contain ingredients that are addictive and could harm different parts of your body.
- Next time we go to the doctor, let's ask about the risks of nicotine, e-cigarettes, and other tobacco products.

You used tobacco, so why shouldn't I?

- If I could live my life over again, I never would have started smoking. I learned that people who smoke cigarettes are much more likely to develop, and die from, certain diseases than people who don't smoke. This was really scary, so I quit smoking.
- Quitting was really hard, and I don't want you to go through that. The best thing is to not start at all.

Connecticut Resources

**Department of Mental Health and Addiction Services
Tobacco Prevention and Education Program
www.ct.gov/dmhas/**

**Department of Public Health
CT Quitline
www.ct.gov/dph
1.800.QUIT-NOW**

National Resources

**American Lung Association
www.lung.org**

**Centers for Disease Control and Prevention
www.SurgeonGeneral.gov**

www.smokefree.gov

**Food and Drug Administration
www.fda.gov**

KEEP THE CONVERSATION GOING

Many parents find that texting is a great way to reach their teens. Here are some suggestions for text messages that might catch your teen's attention. And, you can easily share pages of the website (E-cigarettes.SurgeonGeneral.gov) with your teen.

Connect and encourage.

- You always liked science. Check out the science about e-cigarettes and young people: E-cigarettes.SurgeonGeneral.gov
- Getting off nicotine is hard but I'm so happy I quit. Don't make that mistake and get addicted. Smoking and tobacco use, including using e-cigarettes, are unsafe for young people.

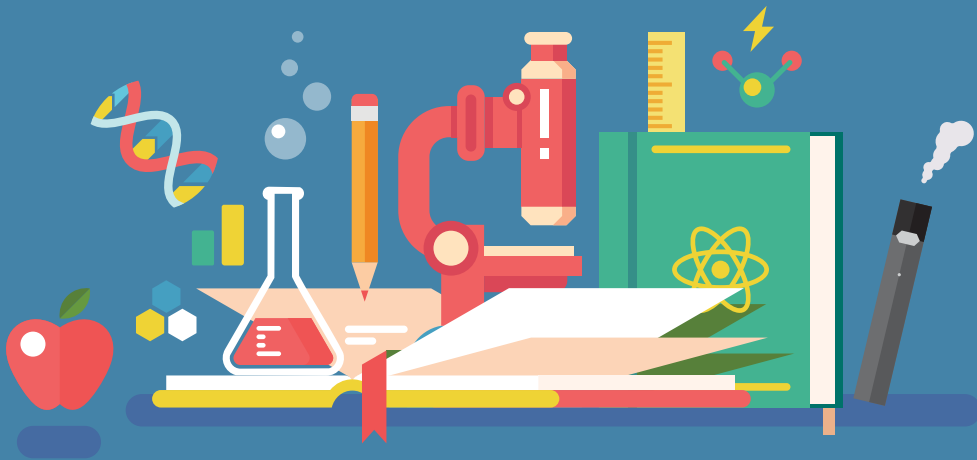
Remind and repeat.

- Most teenagers don't use e-cigarettes. E-cigarettes with nicotine can mess with your brain, and your brain is still developing until you are at least 25.
- You might be tempted by e-cigarette flavors, but inhaling certain flavorings that have been found in some e-cigarettes can be harmful.

Share facts and resources.

- Just learned that many e-cigarettes have nicotine in them. That's the drug that makes cigarettes so addictive. Nicotine can also mess with your brain development.
- Just saw a report from the Surgeon General that e-cigarettes can mess with how your brain develops and might even affect your mood and focus. Please don't use any products that contain nicotine.
- Hope none of your friends use e-cigarettes around you. Even breathing the cloud they exhale can expose you to nicotine and chemicals that can be dangerous to your health.





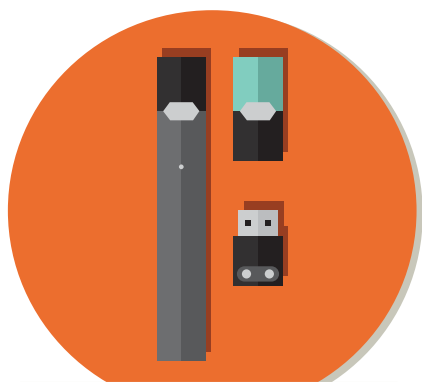
TEACHERS AND PARENTS: That USB Stick Might Be an *E-cigarette*



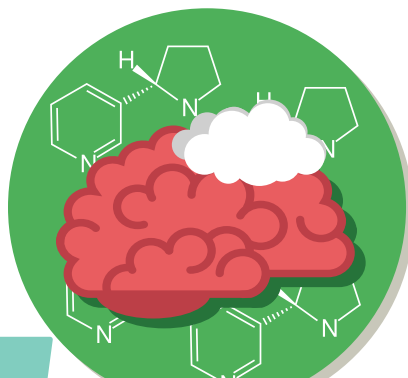
E-cigarettes are the most commonly used tobacco product among U.S. middle and high school students.



Some e-cigarettes don't look like tobacco products, so some kids use them unnoticed in schools, including in classrooms and bathrooms.



An increasingly popular e-cigarette, called JUUL, is shaped like a USB flash drive.



JUUL delivers a high dose of nicotine. Nicotine is highly addictive and can harm adolescent brain development.



**TOBACCO PRODUCT
USE IN ANY FORM,
INCLUDING
E-CIGARETTES, IS
UNSAFE FOR YOUTH.**

LEARN MORE about the risks of e-cigarettes for youth and access tips for talking to youth at:
<https://e-cigarettes.surgeongeneral.gov/resources.html>



U.S. Department of
Health and Human Services
Centers for Disease
Control and Prevention

E-Cigarette Use Among Youth And Young Adults

A Report of the Surgeon General

This Surgeon General's report comprehensively reviews the public health issue of e-cigarettes and their impact on U.S. youth and young adults. Studies highlighted in the report cover young adolescents (11-14 years of age); adolescents (15-17 years of age); and/or young adults (18-25 years of age). Scientific evidence contained in this report supports the following facts:

E-cigarettes are a rapidly emerging and diversified product class. These devices typically deliver nicotine, flavorings, and other additives to users via an inhaled aerosol. These devices are referred to by a variety of names, including "e-cigs," "e-hookahs," "mods," "vape pens," "vapes," and "tank systems."

- E-cigarettes are battery-powered devices that heat a liquid into an aerosol that the user inhales.
- The liquid usually has nicotine, which comes from tobacco; flavoring; and other additives.
- E-cigarette products can also be used as a delivery system for marijuana and other illicit drugs.

E-cigarettes are now the most commonly used tobacco product among youth, surpassing conventional cigarettes in 2014. E-cigarette use is strongly associated with the use of other tobacco products among youth and young adults, including cigarettes and other burned tobacco products.

- In 2015, more than 3 million youth in middle and high school, including about 1 of every 6 high school students, used e-cigarettes in the past month. More than a quarter of youth in middle and high school have tried e-cigarettes.
- Among high school students, e-cigarette use is higher among males, whites, and Hispanics than among females and African-Americans.
- There is a strong association between the use of e-cigarettes, cigarettes, and the use of other burned tobacco products by young people. In 2015, for example, nearly 6 of 10 high school cigarette smokers also used e-cigarettes.
- Research has found that youth who use a tobacco product, such as e-cigarettes, are more likely to go on to use other tobacco products like cigarettes.

E-cigarette use among youth and young adults has become a public health concern. In 2014, current use of e-cigarettes by young adults 18-24 years of age surpassed that of adults 25 years of age and older.

- Among young adults 18-24 years of age, e-cigarette use more than doubled from 2013 to 2014. As of 2014, more than one-third of young adults had tried e-cigarettes.
- The most recent data available show that the prevalence of past 30-day use of e-cigarettes was 13.6% among young adults (2014) and 16.0% among high school students (2015).
- The most recent data available show that the prevalence of past 30-day use of e-cigarettes is similar among middle school students (5.3%) and adults 25 years of age and older (5.7%).
- Among young adults, e-cigarette use is higher among males, whites and Hispanics, and those with less education.

The use of products containing nicotine poses dangers to youth, pregnant women, and fetuses. The use of products containing nicotine in any form among youth, including in e-cigarettes, is unsafe.

- Many e-cigarettes contain nicotine, which is highly addictive.
- The brain is the last organ in the human body to develop fully. Brain development continues until the early to mid-20s. Nicotine exposure during periods of significant brain development, such as adolescence, can disrupt the growth of brain circuits that control attention, learning, and susceptibility to addiction.
- The effects of nicotine exposure during youth and young adulthood can be long-lasting and can include lower impulse control and mood disorders.



Wheeler

CONNECTICUT
Clearinghouse

a program of the Connecticut Center
for Prevention, Wellness and Recovery

800.232.4424 (phone)

A Library and Resource Center on Alcohol, Tobacco, Other Drugs, Mental Health and Wellness

Connecticut Resources

Department of Mental Health
and Addiction Services
Tobacco Prevention and
Education Program
www.ct.gov/dmhas/

Department of Public Health
CT Quitline
www.ct.gov/dph
1.800.QUIT-NOW

National Resources

American Lung Association
www.lung.org

Centers for Disease Control and
Prevention
www.smokefree.gov
www.SurgeonGeneral.gov

Food and Drug Administration
www.fda.gov

- The nicotine in e-cigarettes and other tobacco products can prime young brains for addiction to other drugs, such as cocaine and methamphetamine.
- Nicotine can cross the placenta and affect fetal and postnatal development. Nicotine exposure during pregnancy can result in multiple adverse consequences, including sudden infant death syndrome (SIDS).
- Ingestion of e-cigarette liquids containing nicotine can cause acute toxicity and possible death if the contents of refill cartridges or bottles containing nicotine are consumed.

E-cigarette aerosol is not harmless. It can contain harmful and potentially harmful constituents including nicotine. Nicotine exposure during adolescence can cause addiction and can harm the developing adolescent brain.

- The constituents of e-cigarette liquids can include solvents, flavorants, and toxicants.
- The aerosol created by e-cigarettes can contain ingredients that are harmful and potentially harmful to the public's health, including: nicotine; ultrafine particles; flavorings such as diacetyl, a chemical linked to serious lung disease; volatile organic compounds such as benzene, which is found in car exhaust; and heavy metals, such as nickel, tin, and lead.

E-cigarettes are marketed by promoting flavors and using a wide variety of media channels and approaches that have been used in the past for marketing conventional tobacco products to youth and young adults.

- E-cigarettes are an estimated \$3.5 billion business in the United States. In 2014, e-cigarette manufacturers spent \$125 million advertising their products in the U.S.
- In 2014, more than 7 of 10 middle and high school students said they had seen e-cigarette advertising. Retail stores were the most frequent source of this advertising, followed by the internet, TV and movies, and magazines and newspapers.
- The 2012 Surgeon General's Report on tobacco use among youth and young adults found that tobacco product advertising causes young people to start using tobacco products. Much of today's e-cigarette advertising uses approaches and themes similar to those that were used to promote conventional tobacco products.
- E-cigarettes are available in a wide variety of flavors, including many that are especially appealing to youth. More than 85% of e-cigarette users ages 12-17 use flavored e-cigarettes, and flavors are the leading reason for youth use. More than 9 of 10 young adult e-cigarette users said they use e-cigarettes flavored to taste like menthol, alcohol, fruit, chocolate, or other sweets.

Action can be taken at the national, state, local, tribal and territorial levels to address e-cigarette use among youth and young adults. Actions could include incorporating e-cigarettes into smokefree policies, preventing access to e-cigarettes by youth, price and tax policies, retail licensure, regulation of e-cigarette marketing likely to attract youth, and educational initiatives targeting youth and young adults.

- The Food and Drug Administration (FDA) now regulates the manufacturing, importing, packaging, labeling, advertising, promotion, sale, and distribution of e-cigarettes.

In August 2016, FDA began enforcing a ban on vending machine sales unless in adult-only facilities and a ban on free samples and sales to minors.

- Parents, teachers, health care providers, and others who influence youth and young adults can advise and inform them of the dangers of nicotine; discourage youth tobacco use in any form, including e-cigarettes; and set a positive example by being tobacco-free themselves.

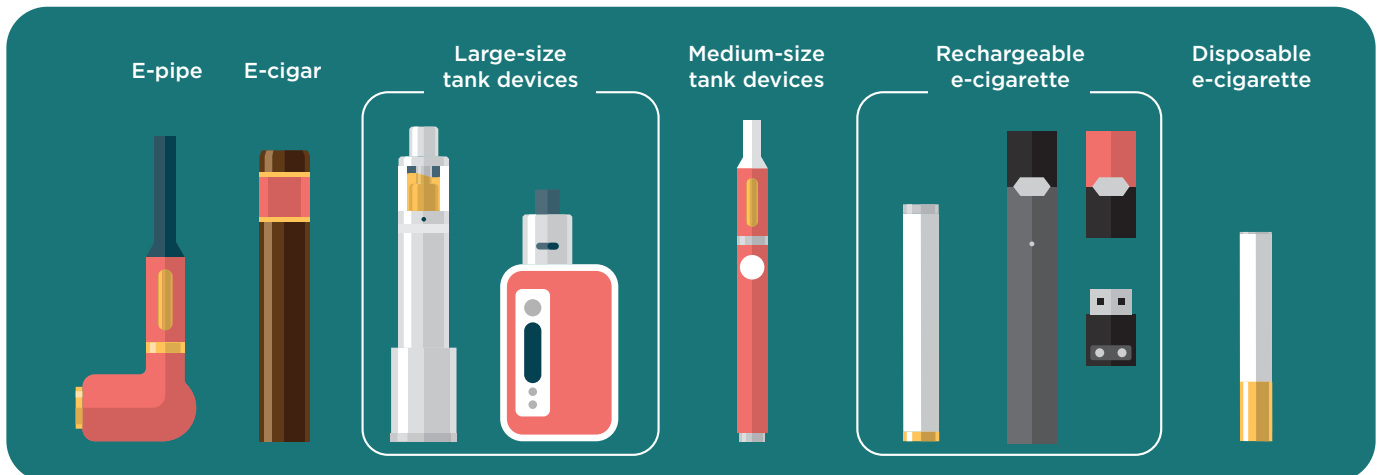
Citation: U.S. Department of Health and Human Services. E-Cigarette Use Among Youth and Young Adults: A Report of the Surgeon General—Executive Summary. Atlanta, GA: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, 2016.



- » E-cigarettes have the potential to benefit adult smokers who are not pregnant if used as a complete substitute for regular cigarettes and other smoked tobacco products.
- » E-cigarettes are not safe for youth, young adults, pregnant women, or adults who do not currently use tobacco products.
- » While e-cigarettes have the potential to benefit some people and harm others, scientists still have a lot to learn about whether e-cigarettes are effective for quitting smoking.
- » If you've never smoked or used other tobacco products or e-cigarettes, don't start.

WHAT ARE E-CIGARETTES?

- » E-cigarettes are known by many different names. They are sometimes called “e-cigs,” “e-hookahs,” “mods,” “vape pens,” “vapes,” “tank systems,” and “electronic nicotine delivery systems.”
- » Some e-cigarettes are made to look like regular cigarettes, cigars, or pipes. Some resemble pens, USB sticks, and other everyday items.
- » E-cigarettes produce an aerosol by heating a liquid that usually contains nicotine—the addictive drug in regular cigarettes, cigars, and other tobacco products—flavorings, and other chemicals that help to make the aerosol. Users inhale this aerosol into their lungs. Bystanders can also breathe in this aerosol when the user exhales into the air.
- » E-cigarettes can be used to deliver marijuana and other drugs.

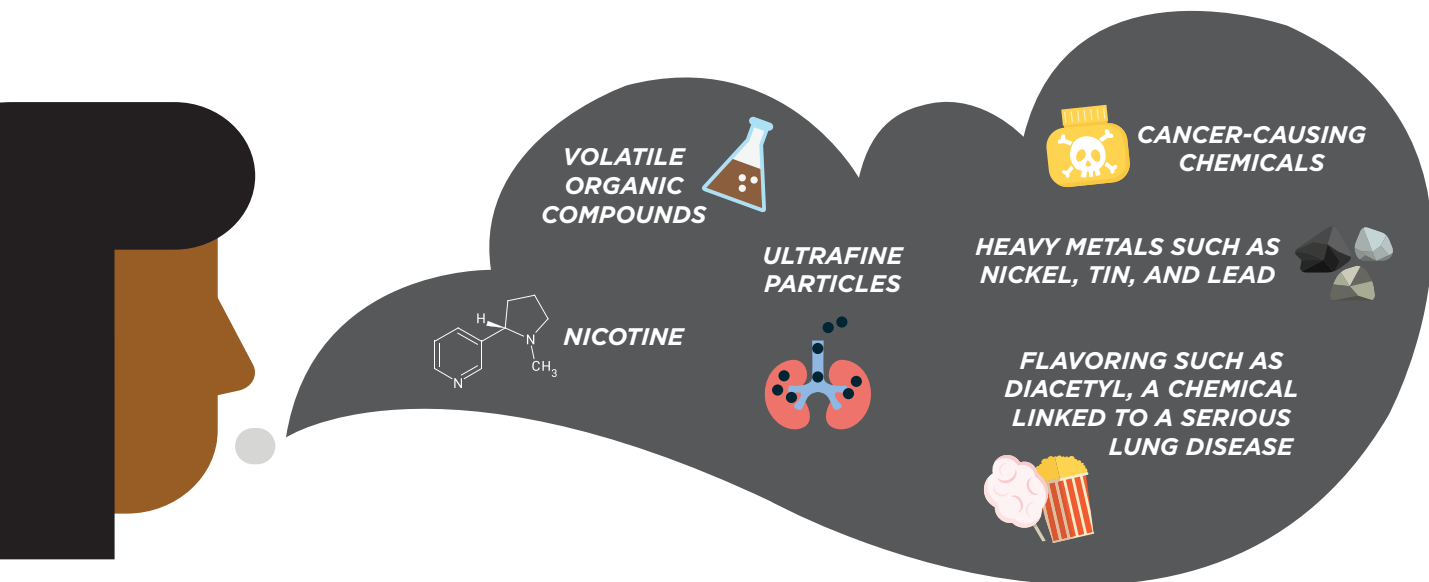


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WHAT IS IN E-CIGARETTE AEROSOL?

THE E-CIGARETTE AEROSOL THAT USERS BREATHE FROM THE DEVICE AND EXHALE CAN CONTAIN HARMFUL AND POTENTIALLY HARMFUL SUBSTANCES:



It is difficult for consumers to know what e-cigarette products contain. For example, some e-cigarettes marketed as containing zero percent nicotine have been found to contain nicotine.

ARE E-CIGARETTES LESS HARMFUL THAN REGULAR CIGARETTES?



VS



YES, but that doesn't mean e-cigarettes are safe.

E-cigarette aerosol generally contains fewer toxic chemicals than the deadly mix of 7,000 chemicals in smoke from regular cigarettes. However, e-cigarette aerosol is not harmless. It can contain harmful and potentially harmful substances, including nicotine, heavy metals like lead, volatile organic compounds, and cancer-causing agents.

WHAT ARE THE HEALTH EFFECTS OF USING E-CIGARETTES?

SCIENTISTS ARE STILL LEARNING ABOUT THE LONG-TERM HEALTH EFFECTS OF E-CIGARETTES. HERE IS WHAT WE KNOW NOW.

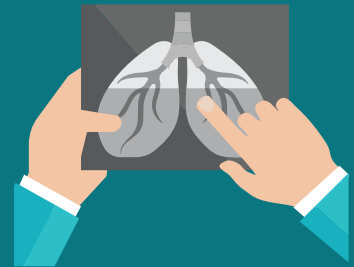
1 Most e-cigarettes contain nicotine, which has known health effects

- » Nicotine is highly addictive.
- » Nicotine is toxic to developing fetuses.
- » Nicotine can harm adolescent brain development, which continues into the early to mid-20s.
- » Nicotine is a health danger for pregnant women and their developing babies.



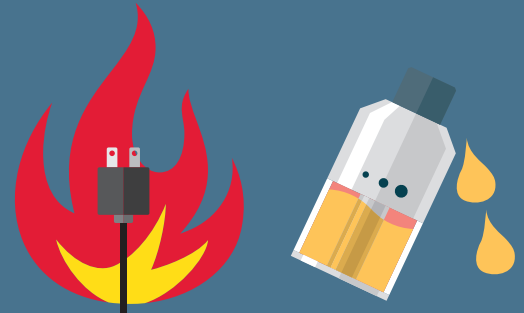
2 Besides nicotine, e-cigarette aerosol can contain substances that harm the body.

- » This includes cancer-causing chemicals and tiny particles that reach deep into lungs. However, e-cigarette aerosol generally contains fewer harmful chemicals than smoke from burned tobacco products.

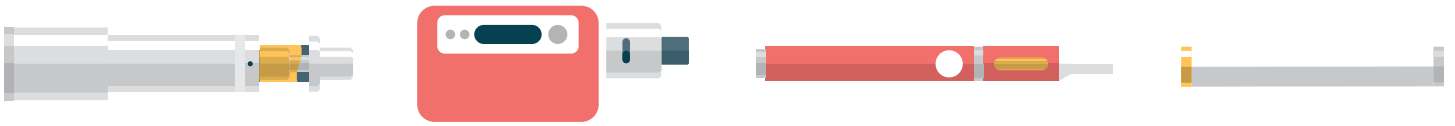


3 E-cigarettes can cause unintended injuries.

- » Defective e-cigarette batteries have caused fires and explosions, some of which have resulted in serious injuries.
- » In addition, acute nicotine exposure can be toxic. Children and adults have been poisoned by swallowing, breathing, or absorbing e-cigarette liquid.



CAN E-CIGARETTES HELP ADULTS QUIT SMOKING CIGARETTES?



E-CIGARETTES ARE NOT CURRENTLY APPROVED BY THE FDA AS A QUIT SMOKING AID.

The U.S. Preventive Services Task Force, a group of health experts that makes recommendations about preventive health care, concluded that the evidence is insufficient to recommend e-cigarettes for smoking cessation in adults, including pregnant women.



HOWEVER, e-cigarettes may help non-pregnant adult smokers if used as a complete substitute for all cigarettes and other smoked tobacco products.

TO DATE, THE FEW STUDIES ON THE ISSUE ARE MIXED.

Evidence from two randomized controlled trials found that e-cigarettes with nicotine can help smokers stop smoking in the long term compared with placebo (non-nicotine) e-cigarettes.

A recent CDC study found that many adults are using e-cigarettes in an attempt to quit smoking. However, most adult e-cigarette users do not stop smoking cigarettes and are instead continuing to use both products (“dual use”). Because smoking even a few cigarettes a day can be dangerous, quitting smoking completely is very important to protect your health.

WHO IS USING E-CIGARETTES?

E-CIGARETTES ARE THE MOST COMMONLY USED TOBACCO PRODUCT AMONG YOUTH.

IN THE U.S., YOUTH ARE MORE LIKELY THAN ADULTS TO USE E-CIGARETTE



4.9%

MIDDLE SCHOOL STUDENTS

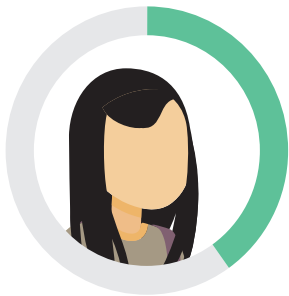
In 2018, more than

3.6 MILLION

U.S. middle and high school students used e-cigarettes in the past 30 days, including:

20.8%

HIGH SCHOOL STUDENTS



AMONG CURRENT E-CIGARETTE USERS AGED 45 YEARS AND OLDER in 2015, most were either current or former regular cigarette smokers, and 1.3% had never been cigarette smokers.

IN CONTRAST, AMONG CURRENT E-CIGARETTE USERS AGED 18-24 YEARS, 40.0% had **NEVER BEEN** regular cigarette smokers

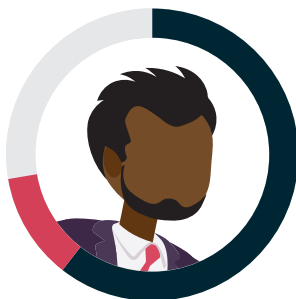
IN 2015, AMONG ADULT E-CIGARETTE USERS OVERALL:

29.8%

were former regular cigarette smokers

11.4%

had never been regular cigarette smokers



58.8%

were current regular cigarette smokers

ADULTS

In 2017, **2.8%** of U.S. adults were current e-cigarette users



SMART RECOVERY TEEN GROUP

FEEL OVERWHELMED, UNHAPPY, UNMOTIVATED, OR LONELY?
STRUGGLE WITH ANGER, DEPRESSION, OR ANXIETY?
USE ALCOHOL, DRUGS, OR UNHEALTHY BEHAVIORS TO COPE?

New free teen group starting October 18th!
Free pizza dinner every week!

YOU'LL LEARN TO...

- Build & maintain motivation
- Cope with urges
- Deal with thoughts, feeling & behaviors
- Live a balanced lifestyle

WHAT'S IT LIKE?

- Free pizza dinner every week
- Make new friends
- Learn skills to take control of your life and be happier!
- Run by local young people



THURSDAYS, 530-7 PM, STARTING OCTOBER 18TH
NORWALK PUBLIC LIBRARY, 1 BELDEN AVE

Text Eliza at 203-901-9472, or email emcnamara@healthymindsct.org

Run by local young adults from TurningPointCT.org

FUNDED BY THE CT RECOVERY ORIENTED SUPPORT SYSTEM FOR YOUTH

