

Thank you for taking the time to attend this presentation about vaping, and how you can protect yourself and the people you care about.

How to Talk with Your Young Person About Anything (including alcohol and other drugs)



Today's Agenda

- What is vaping?
- How does a vaping device work?
- What substances can be used in a vaping device?
- Why do young people vape?
- Protect yourself from vaping
- Talking about vaping
- Show what you know about vaping

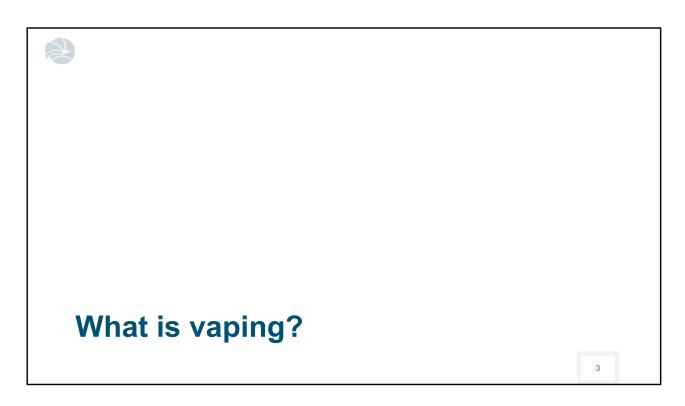


We will cover a number of topics in this presentation.

What is vaping?
How does a vaping device work?
What substances can be used in a vaping device?
Why do young people vape?
Protect yourself from vaping
Talking about vaping

And, at the end you'll have a chance to show what you know about vaping.

How to Talk with Your Young Person About Anything (including alcohol and other drugs)



So – what is vaping?

How to Talk with Your Young Person About Anything (including alcohol and other drugs)



What is vaping?

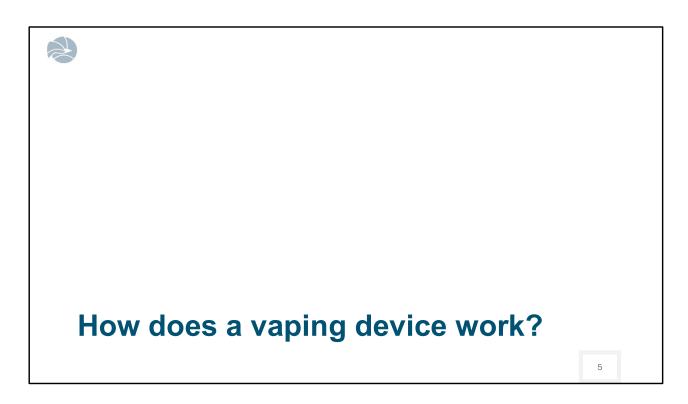
Vaping is the act of inhaling and exhaling an aerosol or vapor made from a liquid or dry material that is heated in an electronic powered device, called an electronic cigarette, or e-cigarette.



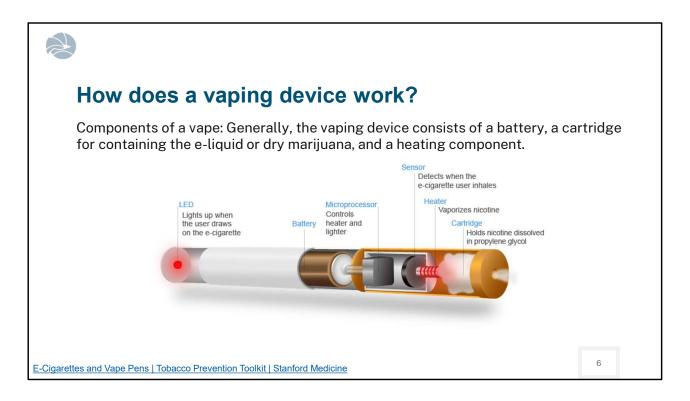
This is a pretty formal definition, but it is clear: "Vaping is the act if inhaling and exhaling an aerosol or vapor made from a liquid or dry material that is heated in an electronic powered device, called an electronic cigarette, or e-cigarette."

A simpler way to think about it is that it is sucking in and then blowing out vapor that has been created by heating a liquid or dry substance in a vape device.

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So – How does a vape work?



There are many different types of vapes, but they all work on a similar principle.

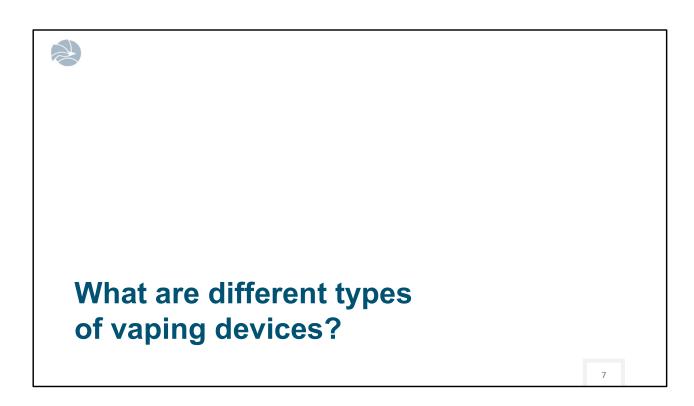
Essentially, a sensor detects when a user inhales.

That sensor triggers the heater which burns the contents of the cartridge which contains nicotine or some other substance.

A tiny computer chip, or microprocessor, controls the heater and sensor.

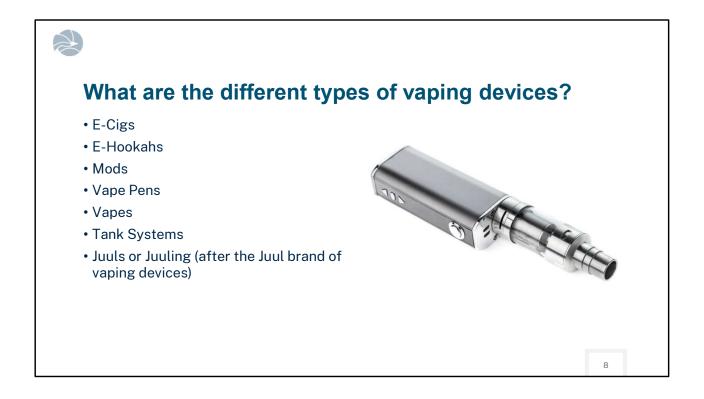
A battery – which can be rechargeable – powers the whole thing and the LED light at the end of the e-cigarette recreates the idea of a lit cigarette.

How to Talk with Your Young Person About Anything (including alcohol and other drugs)



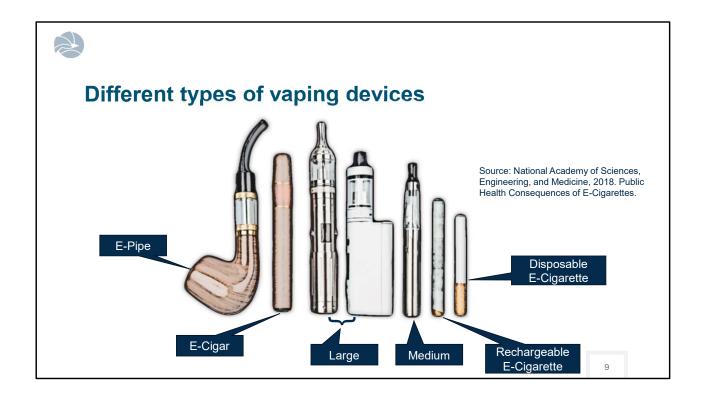
So – we said there are different types of vaping devices. What are they?

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Here is a list of vaping devices. They are all a bit different, but work in a similar way: the device heats a liquid or dry substance to create a vapor, which is then sucked into the lungs.

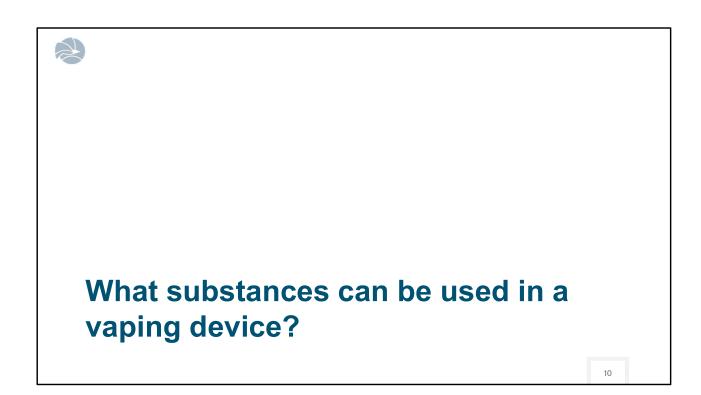
What are other names you have heard them called?



Here are some images of vaping devices.

This is a pretty generic image. Vapes come in all colors, shapes and sizes, often designed to attract young people.

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Ok – If you have heard of vapes or e-cigarettes before, you may think that they are used for nicotine. And some are, but there are many different substances that can be used in a vape.



What can be used in a vaping device?

- Vapes were originally marketed as an alternative to cigarettes (and used similar advertising), so many vapes contain nicotine.
- Vapes can also be used to consume marijuana concentrates and other cannabis-related products (THC, CBD, Delta-8) ...





Source: Business Insider, The New E-Cigarette Ads Look Exactly Like Old-School Cigarette Promos, 11/5/2013

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The most common is still nicotine. Vapes were originally marketed as an alternative to cigarettes and a way to quit smoking.

It is interesting that ads for e-cigarettes a decade ago looked like updated versions of cigarette ads from a century ago.

But substances other than nicotine can be put into a vape, including **marijuana concentrates** and other cannabis-related products.



What can be used in a vaping device?

- Marijuana concentrates are increasingly being used in vaping devices. Many users prefer the vaping device because it is smokeless, sometimes odorless, and is easy to hide or conceal.
- The user takes a small amount of marijuana concentrate, referred to as a "dab," then heats the substance using the vaping device to produce vapors that ensure an instant "high" effect for the user ("dabbing").





Source: DEA, Google Search

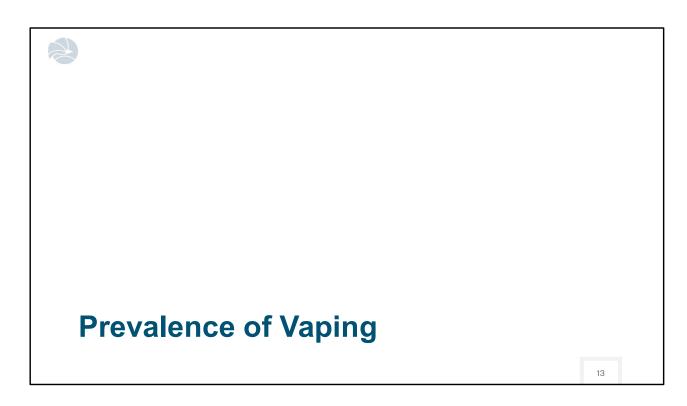
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Marijuana concentrates are exactly what they sound like: The active ingredient in marijuana is concentrates in a substance called a "dab" that can be burned in a vape.

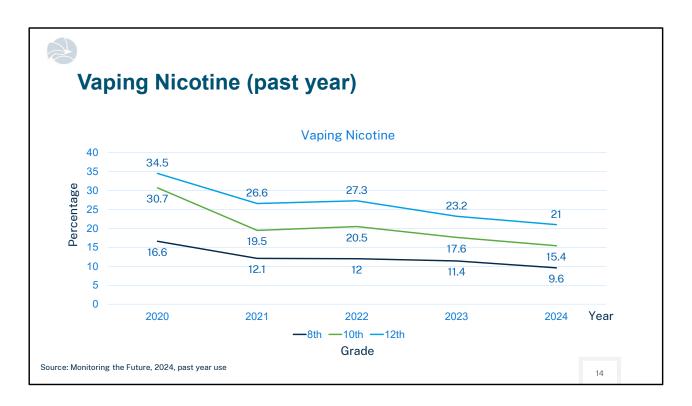
It is an imperfect comparison, but smoking a joint 20 years ago is to dabbing today as drinking light beer is to downing Everclear 150-proof alcohol. The concentration of THC and other psychoactive substances makes the substance significantly more potent.

Photo 1: GSAD

Photo 2: https://www.kushcarts.co.uk/product/kush-pen-dab-vaporizer/



So, how prevalent is vaping?



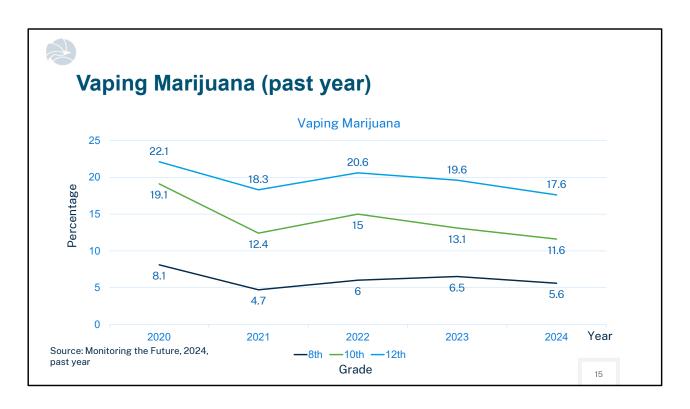
Well, there is good news and less good news.

According to Monitoring the Future, a research study conducted by the University of Michigan since the 1970's, vaping is down among all youth age groups (8th, 10th and 12th graders) since 2020.

This chart tracks "past year" use.

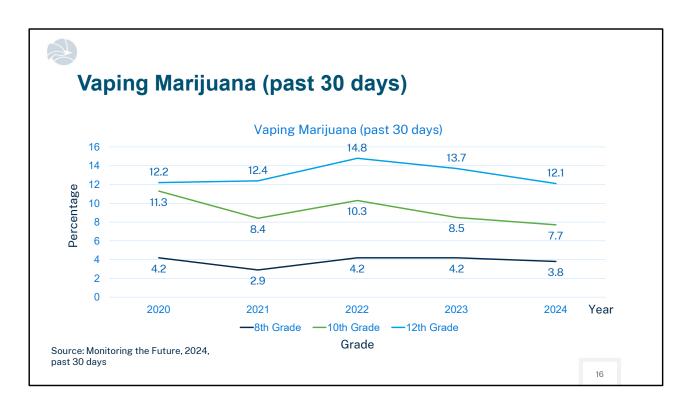
The less good news is that one in five 12th Graders and one in ten 8th graders say they have vaped in the past year.

Whether you look at the glass as half full or half empty, you do now have a response if your young person says that "everyone vapes." It may feel like it to them, but when young people talk to researchers they tell a different story.



So, how about marijuana?

After a dip during, and rebound after, the pandemic, the percentage of teens who say that they vaped in the past year is trending down. Again, higher than we'd like, but headed in the right direction.



The numbers to be more concerned about are the "past month." These are young people who are using in the past 30 days, which is categorized as "current use." Again, the majority of young people are not using regularly, but far too many are.

The positive take is that while use rose post-pandemic, it is now trending down again.



Why do young people vape?

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So – why do young people vape?



Why Young People Vape

- Social Influences: The most common reason U.S. middle and high school students give for trying an e-cigarette is that a friend used them. Youth also report vaping because they are curious about e-cigarettes or because a family member used them.
- Flavors: In 2024, nearly 9 out of 10 middle and high school students who currently used ecigarettes used a flavored product. The most commonly used flavors reported by these students were fruit, candy, and mint.



cdc.gov/vaping

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One reason is the influence of peers. When young people see friends or family members using, they want to try as well.

Another reason is that some vapes have been designed to be attractive to young people. Most young people find the taste of tobacco to be harsh and unpleasant, so vape manufacturers create flavors to appeal to them.



Why Young People Vape

- Advertising: In 2021, 7 in 10 U.S. middle and high school students reported exposure to ecigarette marketing. About three in four (74%) students who used social media had seen ecigarette-related posts or content.
- Nicotine: Nicotine is the main addictive substance in tobacco products, including ecigarettes. With repeated use, a person's brain gets used to having nicotine. This can make them think they need nicotine just to feel okay. This is part of nicotine addiction.

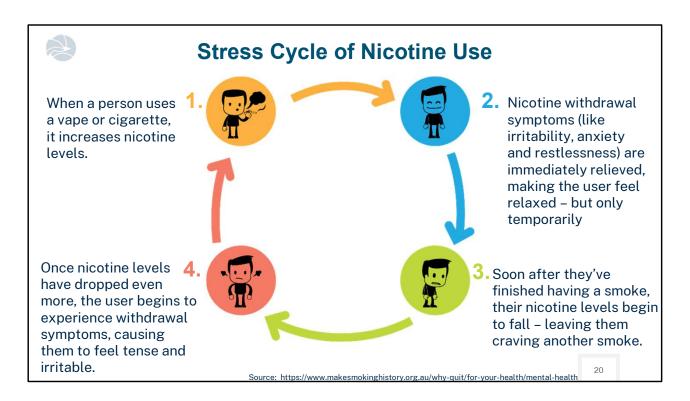


cdc.gov/vaping

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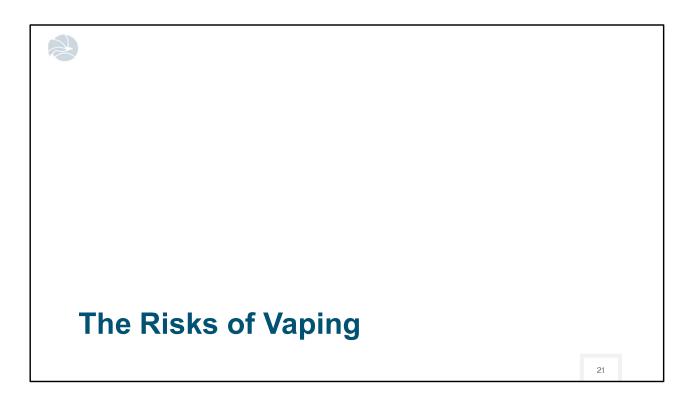
Another reason is advertising. Whether we like it or not, advertising works. In 2021, about 70 percent of middle and high school students reported seeing ads for vapes, either in person or online.

Finally, nicotine is incredibly addictive. Research from the CDC found that about half of the young people who try e-cigarettes become dependent on them. (https://www.cdc.gov/tobacco/e-cigarettes/youth.html)



Here is why it can be hard to stop smoking:

In short, when people who use nicotine stop, their body experiences withdrawal, which is solved by consuming more nicotine.



Vaping – whether it is nicotine, marijuana concentrates, or some other substance, has dangers that you – and the people you care about need to be aware of.



The Risks of Vaping

- Vapes that do not contain nicotine, marijuana, or other psychoactive substances can still be dangerous.
- Vitamin E acetate has been indicated in EVALI, which stands for E-cigarette or Vaping Product Use Associated Lung Injury. This is a potentially fatal syndrome associated with vaping.
- Researchers found toxic metals in vapes.
- More than 2,000 explosion and burn injuries resulted in visits to hospital emergency departments from 2015 to 2017.



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One thing a young person may say is that they are not vaping nicotine or other drug – they are just vaping flavors.

Even if that is true, there is more risk than they may think.

A chemical found in some vapes has been associated with lung injury.

Researchers have found toxic metals in vapes.

And between 2015 and 2017 more than 2000 people went to the emergency room due to vape explosions and burn injuries.

Vitamin E

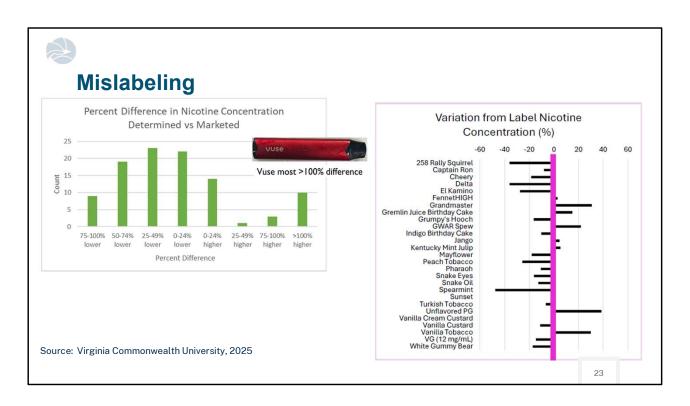
Vape Flavors and Vape Juice: What You Need to Know | Johns Hopkins Medicine

https://publichealth.jhu.edu/2024/researchers-find-toxic-metals-in-e-cigarettes

Mason report finds e-cigarette explosions, injuries are more common than previously thought | George Mason University News

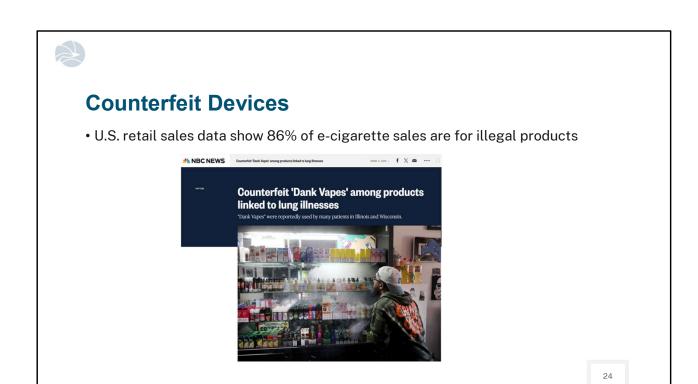
https://content.sitemasonry.gmu.edu/news/2018-09/mason-report-finds-e-cigarette-explosions-injuries-are-more-common-previously-thought

https://www.cnn.com/2019/06/19/health/e-cigarette-vape-explode-teen-study



One often unrecognized issue when it comes to vaping is the fact that many vapes are mislabeled: some have more nicotine than marketed, some have less.

Vuse has the greatest difference, with more than a 100% difference between the actual nicotine content and what is labeled.



In addition to mislabeled pods and cartridges, the vast majority or e-cigarette sales are for illegal products.

The FDA has authorized only 34 e-cigarette products for sale, which constitute less than 14% of the market.

U.S. retail sales data show 86% of e-cigarette sales are for illegal products --

https://truthinitiative.org/research-resources/tobacco-industry-marketing/us-retail-sales-data-show-86-e-cigarette-sales-are



Signs That Vape Is Fake

- Strange particles or foreign materials in the product
- · Packaging or labeling that seems off-kilter, lacking, or containing errors such as misspellings
- · Products that have been tampered with or are tainted
- Products that have been purchased from unauthorized retailers or third-party online marketplaces
- Pricing that is unusually lower than market value
- Products that are no longer commercially available from the manufacturer or illegal in the jurisdiction where they are sold

National Crime Prevention Council, 2024

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This information – developed from an infographic from the National Crime Prevention Council – identifies ways you can tell if a vape is fake / counterfeit.



Counterfeit Devices

- FDA works with the Department of Justice to enforce laws against selling counterfeit vapes or selling vapes to underage people
- There are more than 10,000 vape stores in the United States (not including convenience stores and online sales).
- In December 2024, the FDA issued warning letters to 115 brick-and-mortar retailers for selling unauthorized e-cigarette products.

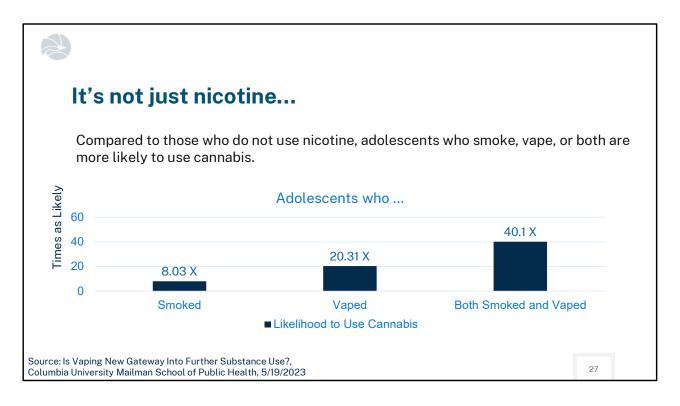




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Law enforcement and regulators are working to address the issue, but the simple fact is that there are more than 10,000 vape shops in the United States.

What Yelp data reveal about the sudden rise of vape shops in America -- https://qz.com/608469/what-yelp-data-tells-us-about-vaping



There is a temptation to say "its only vaping," or "I smoked at their age – it is a phase kids go through."

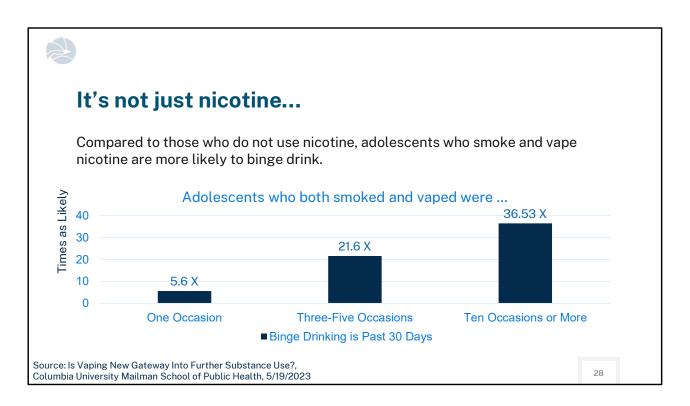
What researchers have found is that compared to those who did not use nicotine at all, adolescents who:

Smoked were 8 times more likely to use cannabis.

Vaped were 20 times more likely to use cannabis.

Both smoked and vaped were 40 times more likely to use cannabis.

https://www.publichealth.columbia.edu/news/vaping-new-gateway-further-substance-use



And when we look at that last group who both smoked and vaped, they were:

5-6 times more likely to have participated in binge drinking on one occasion. More than 21 times more likely to participated in binge drinking on three to five occasions.

And over 36 times more likely to have participated in binge drinking on ten occasions or more.



What are marijuana concentrates?

- THC (tetrahydrocannabinol) is the primary psychoactive substance in marijuana.
- A marijuana concentrate is a highly potent THC concentrated mass that looks like honey or butter, which is why it is referred to or known on the street as "honey oil" or "budder."
- It can contain extraordinarily high THC levels ranging from 40% to 80%.
- This form of marijuana can be up to four times stronger in THC content than potent plant marijuana, which normally measures around 20% THC levels.



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Looking more closely at marijuana concentrates, they are exactly what they sound like: an intense amount of THC, the primary psychoactive ingredient in marijuana — ranging from 40% to 80%. For reference, the THC in potent plant marijuana is around 20%. (And for further reference, the amount of THC in the early 2000's was between 5% and 8%.)

https://nida.nih.gov/research/research-data-measures-resources/cannabis-potency-data



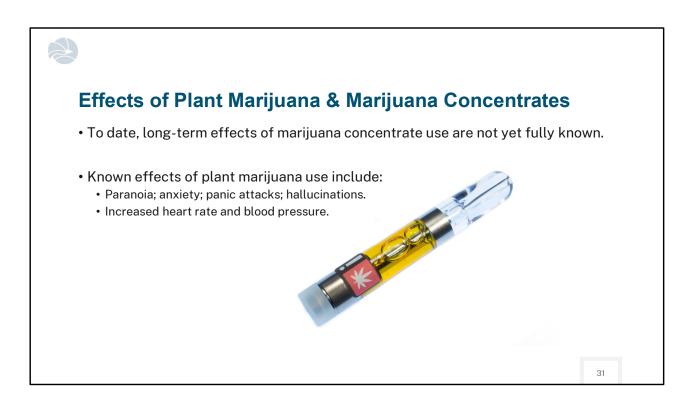
Consequences of Plant Marijuana & Marijuana Concentrates

- Plant marijuana users may also experience withdrawal and addiction problems.
- Marijuana use affects attention, memory, and learning skills.
- Students who use marijuana are more likely not to finish high school or get a college degree, compared with their peers who don't use marijuana.

Being a highly concentrated form of marijuana, the effects upon the user may be more psychologically and physically intense than plant marijuana use.

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We know that plant marijuana users can experience negative consequences, which are listed here. A more concentrated form can have even greater effects.



And the reality is that vapes and marijuana concentrates have not been around long enough to determine what the long term consequences may be.



What are names for marijuana concentrates?

- Street or "slang" terms change often and vary regionally across the country.
- Marijuana concentrates are often referred to as:
 - 710 (the word "OIL" flipped and spelled backward)
 - Wax, ear wax, honey oil, budder, butane hash oil, butane honey oil (BHO), shatter, dabs (dabbing), black glass, and errl.



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We talked a bit about names for marijuana concentrates earlier: here are some more.





Contamination

- Some states that allow marijuana to be sold also screen for up to 66 pesticides, yet there are thousands of other unauthorized chemicals that growers or processors use.
- "When you concentrate your flower cannabis into a concentrate, most pesticides come over and concentrate during that same procedure."
- Synthetically manufactured THC goes through a chemical process that leaves behind dangerous residues. About a quarter contain a corrosive, toxic chemical similar to sulfuric acid.

Source: Josh Swider, CEO of Infinite Chemical Analysis Labs, a company that chemically evaluates marijuana products in all forms (Interview, 2/4/2025)

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Early in 2025, NPR reported on contamination of marijuana plants. When marijuana is concentrated, the contaminants are concentrated too.

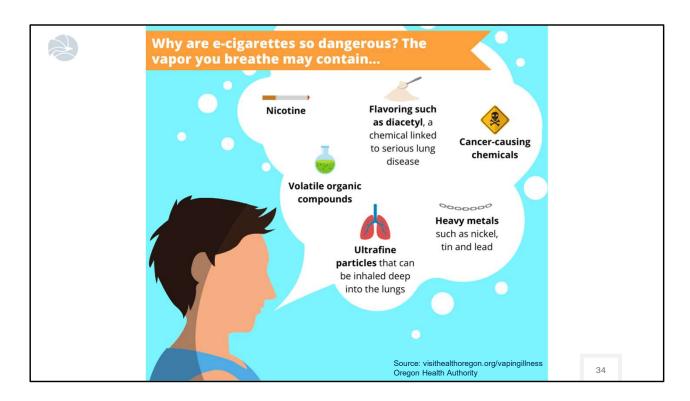
Vaping weed is popular, but there are many unknowns about its safety: NPR

Josh Swider, CEO of Infinite Chemical Analysis Labs, a company that chemically evaluates marijuana products in all their forms

Some states that allow marijuana to be sold also screen for up to 66 pesticides, yet there are thousands of other unauthorized chemicals that growers or processors use.

"When you concentrate your flower cannabis into a concentrate, most pesticides come over and concentrate during that same procedure."

Synthetically manufactured THC goes through a chemical process that leaves behind dangerous residues. About a quarter contain a corrosive, toxic chemical similar to sulfuric acid.



This chart sums up the ways in which e-cigarettes are dangerous.



So – How do you talk with someone you care about about vaping?



Ask open-ended questions

- Open-ended questions are questions that can't be answered with a simple "yes" or "no" or other short answer.
- · Avoid "why" to prevent defensiveness.
- Examples:
 - "What do you think you will do?"
 - "What's the next step?"
 - "What do you think has to change?"
 - "What are your options?"
 - "Of the things we have mentioned here, what seems to make sense?"
 - "Tell me more about what you'd like to do."
 - "How do you think you want to handle this?"

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So – how do you have helpful conversations? That is – literally – a whole presentation by itself, but today we'll talk about two tools you can use.

The first is open-ended questions. [ASK WHO HAS HEARD OF OPEN-ENDED QUESTIONS & WHAT THE AUDIENCE THINKS THEY MEAN]

Very simply, open ended questions are questions that can't be answered with a simple "yes" or "no" or other short answer.

There are a bunch of examples here. What I would suggest is when you want to have an important conversation, think about the questions you want to ask and take some time to turn them into open-ended questions.



It is our hope that now you understand that [you as young people and your friends / the kids you care about] are being targeted. Vaping is dangerous in itself and can lead to the use of other substances.

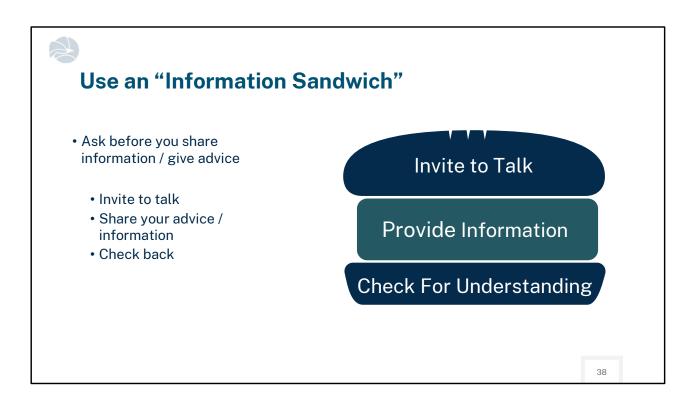
That knowledge can protect you, but you can also use it to protect people you care about. **Here is what you can say:**

The first thing I would tell a [friend / young person I care about] is "You Matter." Whatever stress or isolation or anger or upset you may feel, your life affects other people's and their life would be worse if you're not in it. Your future can make other people's better.

The next thing I would say is that the **risks are real**. Substance use has never been healthy. There have always been dangers of addiction or bad decisions. But today's drug supply is toxic and taking the lives of too many young people.

Third, if you need help; **get help**. Whether it is [a teacher or a school nurse or a coach / another parent or a doctor or a community organization] start looking and you will find people who want to help. Sometimes pride or fear can keep us for asking for help. Don't let it. If all else fails, dial 988. It is a free national service from the federal government that can connect you with services that can help.

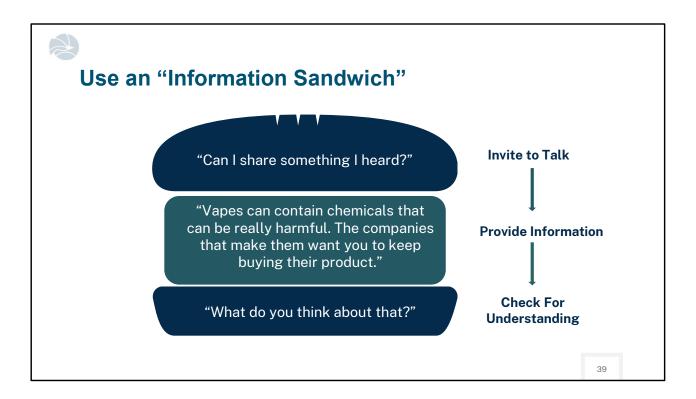
Finally, you can **give help**. That may mean having a tough conversation to say you are worried; or it could be getting trained to provide support to peers; or it could mean carrying naloxone. There is something that all of us can do to save the lives of people in our world.



The next tool is the information sandwich.

If there is an idea or some facts that you want to share, the information sandwich is a great tool to visualize and use.

The first part is an invitation to talk; the middle is the information you want to provide; and the third part is checking back to make sure things make sense and – hopefully – continue the conversation.



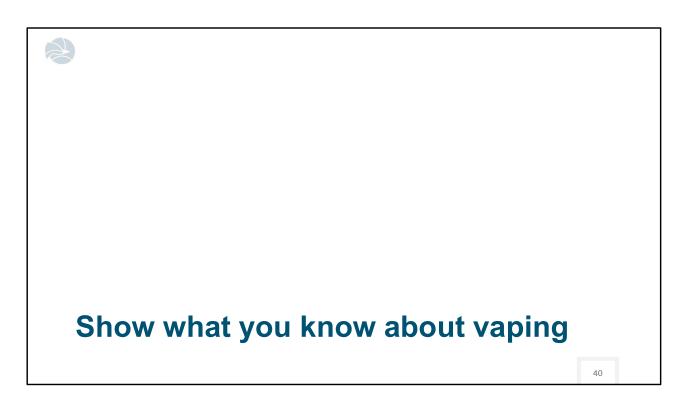
So, here is an example...

[CLICK THROUGH AND READ EXAMPLE]

So, let's break this down ... "Can I share something I heard?" is "asking permission," or an "invitation to talk." That moment may not be a good time to talk, and that's ok. Find a better time.

The "information" you are providing are facts about vaping.

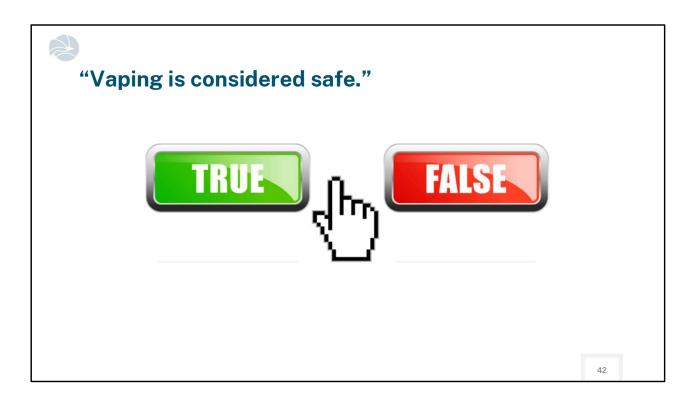
"What do you think about that?" is a way to "check for understanding." You may not get a response you like, but that's ok. It is better to get an open conversation going where you can share more information and work through any attitudes or information that could be risky.



Next, we'll review some of the key concepts we covered in this presentation in a ...



Quiz show!





"Vaping is considered safe."

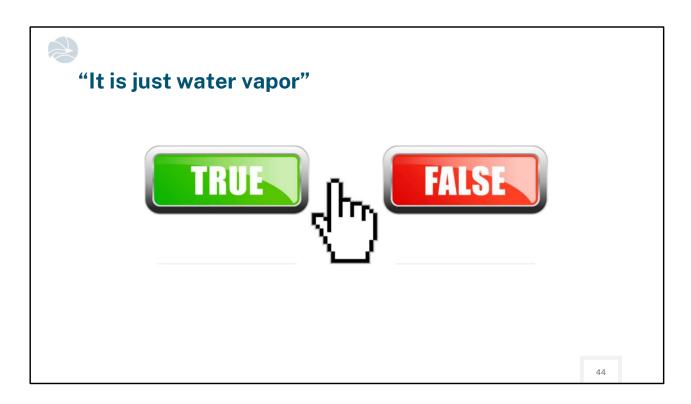


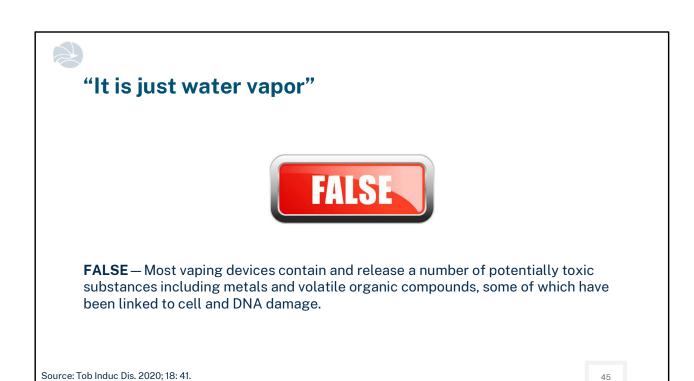
FALSE—Vaping is not considered safe for teens and young adults, especially since the adolescent brain is still developing and taking in these substances may be harmful. Additionally, some vape devices might explode, resulting in burns and other injuries.

Source: Tob Induc Dis. 2020; 18: 41.

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That's an easy one. Vaping is not considered safe for teens and young adults. No level of use is safe.





No – even vapes that do not contain nicotine, cannabis, or another psychoactive substance can still be dangerous.





This is true and false. While adults may be able to reduce smoking by vaping, young adults are more likely to smoke cigarettes when they start vaping.





"If it is sold in a store, it must be safe."



FALSE – The Food and Drug Administration has authorized 34 products, sold by three companies.

Between January 2024 and June 2024, the total number of e-cigarette products sold in the U.S. reached 6,287 products.

FDA also states that vaping is not safe for youth.

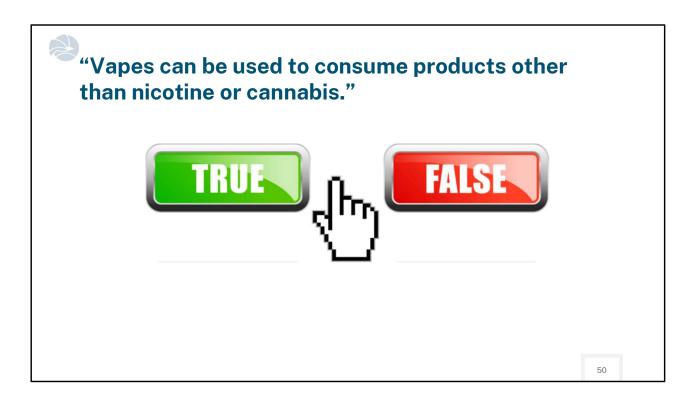
Source: tobaccomonitoring.org

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To date, <u>FDA has authorized 34 tobacco- and menthol-flavored e-cigarette products and devices</u>. These products have undergone rigorous scientific review, including toxicologic assessments, and have been found by FDA to meet the statutory public health standard.

However, FDA also states: While e-cigarettes can generally be a lower-risk alternative for adults who smoke cigarettes, the use of e-cigarettes is not risk-free. These products deliver harmful chemicals and contain nicotine, which is highly addictive. Moreover, given the harmful chemicals found in e-cigarettes, further high-quality research on both short- and long-term health outcomes is needed.

https://www.fda.gov/tobacco-products/products-ingredients-components/e-cigarettes-vapes-and-other-electronic-nicotine-delivery-systems-ends







TRUE – A 2024 study found that vapes are used to consume opioids, cocaine, synthetic cannabinoids, cathinones (K2/Spice), hallucinogens, MDMA (Ecstasy) and methamphetamine.

Alcohol can also be vaped, which can lead to intoxication and harm.

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Substances other than nicotine or cannabis are definitely being uses in vaping devices.

<u>Electronic cigarettes are a tool to vape illicit drugs | Discover Public Health</u> -- https://www.researchgate.net/publication/383566493_Electronic_cigarettes_are_a_tool_t o vape illicit drugs

<u>Inhaling alcohol vapour or mist: An international study of use, effects and harms – ScienceDirect --</u>

https://www.sciencedirect.com/science/article/abs/pii/S0955395920302590







TRUE – A study by researchers at Columbia University Mailman School of Public Health of more than 50,000 U.S. adolescents indicates that vaping nicotine is strongly linked with an increased likelihood of high levels of binge drinking and cannabis usage.

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Unfortunately, that is true,

<u>Is Vaping New Gateway Into Further Substance Use? | Columbia University Mailman School</u> of Public Health







TRUE – According to CDC, parents and caregivers can protect their children by modeling non-use of vaping devices; making their home tobacco-free; talking to their child about the risks of vaping and helping them quit if they start.

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Parents and caregivers can play a key role in protecting the young person they care about by modeling healthy behavior and communicating with their child about the risks of vaping and addressing motivations to vape.

https://www.cdc.gov/tobacco/e-cigarettes/protecting-youth.html#:~:text=Parents%20and%20caregivers,smokefree.gov%20for%20more%20help.



The world of vaping is ever-changing. Get Smart About Drugs is a resource from DEA that provides parents, educators and caregivers with practical information about vaping and other topics related to substance use.



prevention, getting help, and support for families affected by substance use



www.dea.gov/togetherforfamilies

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Together for Families contains information and resources from DEA and our partners

Contains information about prevention, getting help, and support for families affected by substance use



Contact Us

DEA Community Outreach & Prevention Support

Call us: 202.307.7936

Email us: community.outreach@dea.gov

Online: www.dea.gov/education-prevention/community-outreach



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The webpage provides more information about DEA Community Outreach's work and the QR code links to all of DEA's publications.