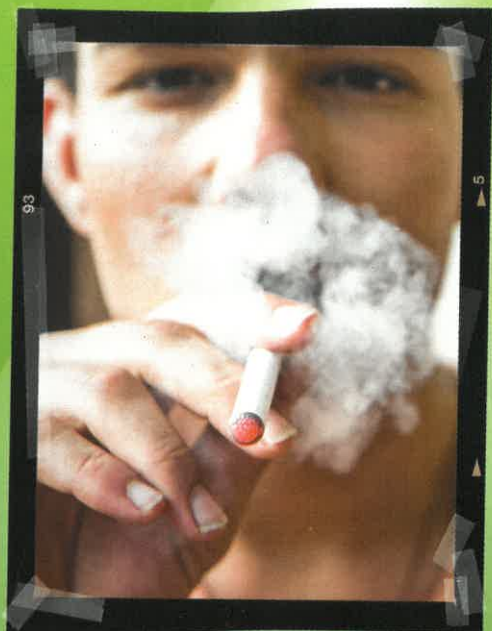


SPOTLIGHT on

Vaping



What is "Vaping?"

The term vaping refers to inhaling and exhaling vapor (or more precisely, aerosol) from an electronic vaping device or electronic cigarette (e-cigarette).



E-CIGARETTES

Electronic or e-cigarettes are the most common vaping device. They are battery-powered nicotine delivery devices in various designs. Each e-cigarette contains a small lithium ion battery that heats up a liquid solution held in the cartridge and produces a fog-like aerosol that is drawn into the lungs and exhaled through the mouth and nose.



Pre-packaged, disposable e-cigarettes are sold in stores and online. While many states have limited e-cigarette sales to adults only, they are readily available to minors. E-cigarettes are not yet regulated by the FDA, so there is no uniform labeling of contents and no way to know how much nicotine or other chemicals are actually contained in each e-cigarette.

The components of a typical e-cigarette are illustrated below:



There is a growing trend of personalizing the vaping experience by buying or making customized vaping devices (PVDs), advanced personal vaporizers (APVs) or mechanical mods. These modified devices may be larger, are refillable and reusable, and may have the ability to control the amount of vapor produced with each inhale.

WHAT IS E-JUICE?

E-juice is the liquid solution that contains various chemicals designed to make vaping pleasurable and addictive.

The most common e-juice in pre-packaged, disposable e-cigarettes is nicotine mixed with propylene glycol (to help create a vapor), vegetable glycerin (to preserve the ingredients), other solvents, and many different flavorings, like mint or fruit. E-juice may contain impurities, carcinogens, insecticides, toxic chemicals, and poisons, putting the consumer at risk.

SLANG TERMS FOR E-CIGS

Vape Pens Hookah Pens
Cig-a-likes Vapor Cigs

MARKETED TOWARD KIDS

E-cigarettes are often marketed toward young people. The devices are bright colors and liquid cartridges with flavors like desserts and candy. Some cartridge flavors include:

- Jolly Rancher®
- Airheads®
- Cotton Candy
- Chocolate
- Gummy Bears
- Bubblegum



While these flavors may sound delicious, it is important to remember that this is a dangerously addictive chemical in disguise.

Just because something tastes like candy does not mean it is safe to put in your body.

E-cigarette companies are targeting teens by making vaping look cool, sexy, and glamorous. Many traditional tobacco companies have gotten into the e-cigarette business, so they use the same advertising techniques used before anti-smoking campaigns and restrictions began decades ago.

AREN'T THEY HARMLESS?

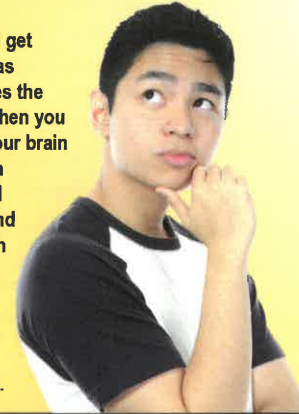
E-cigarette advertisements and online forums may say that using an e-cig is just inhaling harmless water vapor. This is not the case. There is no government regulation of the chemicals that go in e-cig cartridges, so there is no way to know what you are breathing into your lungs. Also, these devices have been on the market for so short a time, it is impossible to know their long-term side effects on users.

Is nicotine dangerous? Will I get addicted?

Nicotine is a neurotoxin that is particularly dangerous to young, still-developing brains. Experts warn that nicotine use can establish patterns that leave young people vulnerable to addiction to other substances.

If you use an e-cigarette, you will get addicted to nicotine. Nicotine is as addictive as heroin and stimulates the addiction center in your brain. When you inhale nicotine vapor, it enters your brain in 8-10 seconds and gives you an immediate buzz. It elevates blood pressure, increases heart rate, and can only be broken down through your liver and kidneys.

Nicotine in its purest form is a deadly poison. Ingesting one tablespoon of the liquid used in e-cigarettes would kill an adult.



At least I'm not smoking cigarettes



NIDA for Teens (National Institute on Drug Abuse) reports that e-cigarettes are new and researchers are working on understanding the health effects for people who use these products.

E-cigarettes deliver nicotine but without many of the toxic chemicals produced by burned tobacco leaves. For that reason, e-cigarettes may be safer than regular cigarettes although that is not proven. What is known is that e-cigarettes are unsafe for the following reasons:

- E-cigarette vapor (more properly aerosol) contains known cancer-causing and toxic chemicals, and particles from the vaporizing mechanism may be harmful in both primary and secondhand vapor.
- Nicotine is highly addictive and may increase a teen's risk of addiction to other drugs.
- E-cigarettes may serve as a gateway to other tobacco products, including regular cigarettes, which are known to cause cancer and early death.
- Because e-cigarettes contain an unknown amount of nicotine they are not suitable for smoking cessation.
- The FDA is currently studying ways to regulate the manufacture and distribution of e-cigarettes, but currently there are no federal regulations of e-cigarettes.

Do they always contain nicotine?

Some of the "e-juice" cartridges may say that they do not contain nicotine, but since they are not regulated by the government, it is impossible to know for sure. The majority of e-cigarette cartridges contain nicotine.

Companies have an interest in putting nicotine in all of their cartridges because it will keep you coming back for more. Even the e-cigarette liquids that claim to be nicotine-free still deliver a hit of ultrafine particles that can contribute to lung conditions and cardiovascular disease.

Vaping Marijuana



Some young people are using e-cigarettes to smoke marijuana. Instead of liquid nicotine, they are replacing it with potent marijuana extracts that come in liquid and waxy forms. Tetrahydrocannabinol, or THC, is the chemical in marijuana that makes users high, and it is in its purest form when smoked using an e-cigarette or vaporizer.

If it's becoming legal doesn't it have to be safe?

The push to legalize marijuana does not mean that it is good for you. Some states are legalizing medical THC to help patients dealing with painful diseases like cancer. If you do not have cancer or another painful disease, there is no reason for you to be using THC. Many substances are legal, but that does not mean they are safe. Tobacco is legal and it kills over 400,000 people in the United States each year.

SAVE YOUR BRAIN

If you smoke, eat, or vaporize marijuana regularly as a teenager, you are inhibiting your brain's ability to develop and your IQ could drop by 8-10 points. A 2013 study found that teens who smoked a lot of marijuana had abnormal changes in their brain structures related to working memory. The earlier teens start smoking, the worse the effects on the brain. Using marijuana produces similar effects on the adolescent brain as those suffering from schizophrenia.

Dangerously High

There is great concern about teens using vaporized marijuana because the marijuana oil cartridges used in the vaporizers can contain THC levels as high as 90%, compared to the 12 or 36% typically found in rolled joints. It is very difficult to tell how much THC one is consuming when using a vaporizer or e-cigarette.

Vaping Alcohol

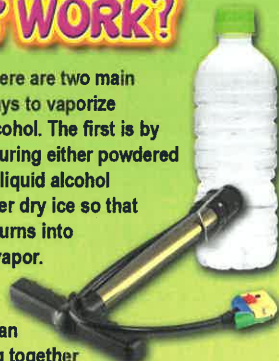
Vaporizing alcohol is another hazardous trend showing up at parties and in online videos. Young people are taking powdered or liquid alcohol and turning it into a vapor, which is then inhaled. While it may seem like a cool new way to have fun at parties, it is extremely dangerous and can be lethal.



HOW DOES IT WORK?



There are two main ways to vaporize alcohol. The first is by pouring either powdered or liquid alcohol over dry ice so that it turns into a vapor.



The second is vaporizing it using an air pump. Teens have been putting together their own air pumps made from plastic bottles and bicycle pumps.

HOW MUCH ARE YOU INHALING?

The average person weighing 150 lbs can drink 2 shots of alcohol per hour and will feel drunk, but will never blackout or overdose. It takes between 5 and 6 shots in an hour for someone this size to overdose on alcohol.

With vaporized alcohol, you can inhale the equivalent of 10 shots in a few seconds.

Since the alcohol is vaporized, it is impossible to know how much you are consuming. This is extremely dangerous.

How is it different from drinking alcohol?

When a person drinks liquid alcohol, it is broken down in your digestive system, having to pass through the stomach, small intestine, and liver. This process takes much longer than inhalation and can be slowed down by the presence of food.

When alcohol is inhaled it travels straight from the lungs to the bloodstream and then directly to the brain.

Consequences of Underage Alcohol Abuse

Youth who abuse alcohol are more likely to experience:

- School problems like poor attendance and failing grades.
- Social problems, such as fighting and lack of participation in youth activities.
- Legal problems, such as arrest for driving or physically hurting someone while drunk.
- Physical problems, such as hangovers or illnesses.
- Unwanted, unplanned, and unprotected sexual activity.
- Disruption of normal growth and sexual development.
- Higher risk for suicide and homicide.
- Alcohol-related car crashes and other unintentional injuries, such as burns, falls, and drowning.
- Changes in brain development that may have life-long effects.
- Physical and sexual assault.
- Memory problems.
- Death from alcohol poisoning.
- Abuse of other drugs.

In general, the risk of youth experiencing these problems is greater for those who binge drink than for those who do not binge drink.

Youth who start drinking before age 15 years are five times more likely to develop alcohol dependence or abuse later in life than those who begin drinking at or after age 21 years. Whether you vape it or drink it, alcohol is still a deadly poison with many health consequences for teens.

Source: <http://www.cdc.gov/alcohol/fact-sheets/underage-drinking.htm>

IT CAN KILL YOU

Inhaling alcohol takes away your body's defenses to protect you from alcohol poisoning. Vomiting is our body's way of preventing an overdose because it forces the alcohol out of the body.

When alcohol is inhaled directly and bypasses the digestive system there is no way for the body to get rid of it. Once it is in your lungs, there is no way to take it out.



If your blood-alcohol level is high enough it causes serious health issues like:

Alcohol poisoning **HYPOTHERMIA**
Slowed breathing **Seizures** **PNEUMONIA**
LUNG DAMAGE **Brain damage** **DEATH**

Huffing from the same bottle of gaseous alcohol also can expose an entire group of friends to bacterial or viral meningitis, which is more common in young adults and teenagers than other adults.

You won't pass a Breathalyzer test or save calories

There are online rumors that vaporizing alcohol will prevent you from failing a Breathalyzer test when pulled over for drunk driving. This is not the case. Breathalyzers test blood alcohol content, whether alcohol is ingested as a liquid or vapor.



Another rumor is that vaporizing alcohol can help you lose weight. The calories found in ethanol, the substance that becomes vaporized in alcoholic beverages, are present whether it is in liquid or vaporized form.

SAVE YOUR LUNGS: ONLY INHALE OXYGEN!

The lungs are designed for breathing in oxygen, they are not meant to contain any type of liquid. When we breathe in a vaporized liquid it condenses in the walls of the lungs. Condensed liquid is heavier than vapor, so it will fall down to the bottom of the lungs and sit there. This can lead to serious lung infections like pneumonia.

Vaporizing any substance takes away your body's defenses to protect itself because it shoots straight from your lungs to your bloodstream and brain.

Learning More

For More Information on Nicotine, E-cigarettes, Marijuana, and Vaping:

Centers for Disease Control and Prevention
www.cdc.gov

Quit Help
www.SmokeFree.gov

Statistics and Trends
<http://teens.drugabuse.gov/drug-facts/tobacco-nicotine-e-cigarettes>

NIDA Information on Drug Abuse and Teens
www.drugabuse.gov

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