

Vaping 101

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Vaping Facts:

- 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. Nicotine is highly addictive.
- E-Cigarette products can also be used as a delivery system for marijuana and other illicit drugs.
- 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.

What do parents need to know?

- E-Cigarettes are easy to hide.
- They are cheap, sweet and easy to get.
- Avoid/limit use to access to gift cards.

How does one vape?:

- Snap **Inhale**– This method goes by a number of names, such as Ghost or Mushroom Cloud. You let vapour build in the mouth, exhale it a little bit and then quickly suck the ball of vapour back into your lungs. You essentially get two hits from one draw, the first direct hit and another from **inhaling** the cloud back in.
- Technique Used When **Vaping**. Many smokers draw cigarette smoke through their mouths and straight into their lungs. But many vapers, on the other hand, draw **vapor** into their mouths and hold it there before **inhaling** into their lungs. Some vapers find that using the same technique for cigarettes causes them to cough.

SEVEN WARNING SIGNS THAT YOUR CHILD MIGHT BE VAPING:

- 1. Mystic Aroma:** E-cigarettes don't smell bad like the smoke from combusting tobacco; however, most e-liquids have flavors in them that usually smell nice like candy, mint, vanilla, fruit punch etc. If you catch a sudden whiff of any of these but none of them is around, consider this a red flag.
- 2. Unfamiliar Handheld Gadgets:** E-cigarettes come in various shapes. The most common ones resemble a pen and are known as vape pens. If you see such a gadget or a pen that isn't a pen, be aware that it could be a vaporizer. The easiest way to spot an e-cig is to look for holes on each end of the device.
- 3. Increased Thirstiness:** Vapor from e-cigs is made of VG (Vegetable Glycerin), PG (Propylene Glycol), and flavors. The chemical characteristics of PG make it attract water molecules from its surroundings. When vapor enters the mouth, PG does its trick and keeps the vaper in a state of dry mouth. So, if your child is suddenly drinking more water, he/she may be secretly vaping.
- 4. Caffeine Sensitivity:** Vapers develop caffeine sensitivity. If your child/teen loved coffee or Red Bulls but suddenly stops drinking them, vaping could be the cause.

5. Batteries and Chargers: Just like you have to charge your smartphone every single day, vapers need to charge their vaporizers on a regular basis. While some e-cigs can be charged with just a USB cable, most of the powerful e-cigs require 18650 batteries. So, if you see unfamiliar batteries on the charger, take a look around, and you might find a vaping device.

6. Metallic Wires and Cotton Wicks: If you find organic cotton, empty plastic vials or thin metallic coils lying in your child's room, this is yet another red flag.

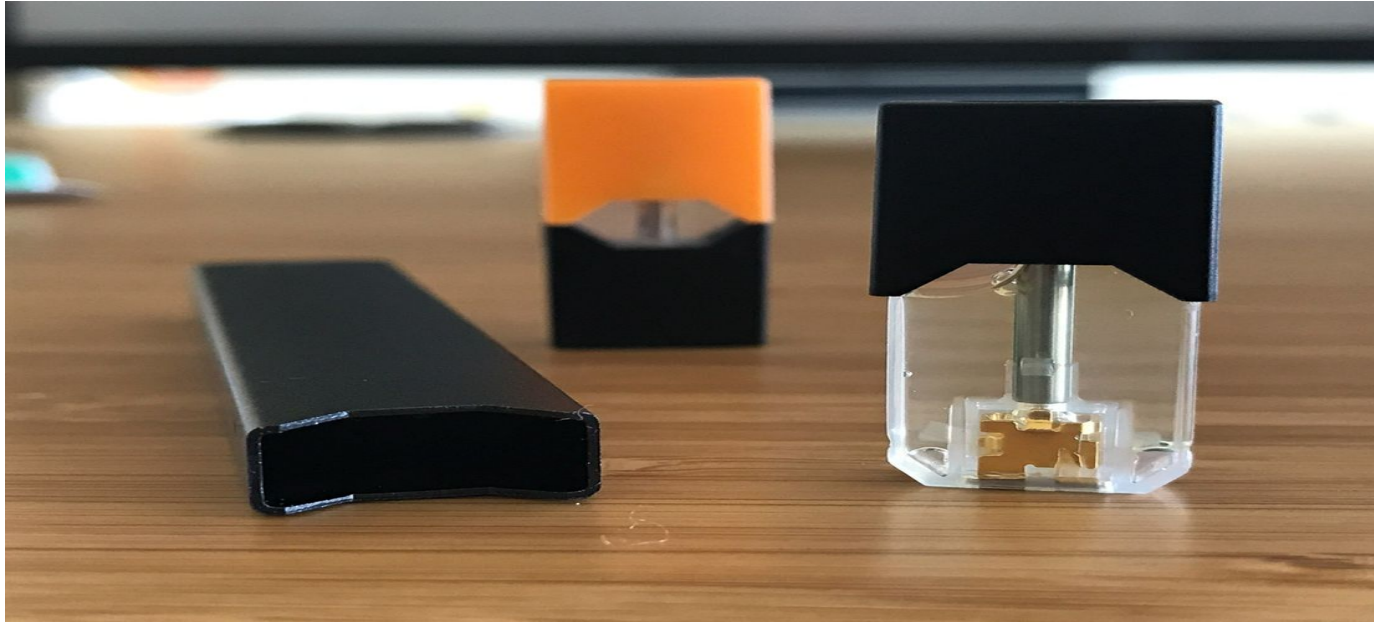
7. Discarded Atomizers: The atomizers are a vital part of e-cigs as they turn e-juice into vapor. However, they are disposable and after a while usually, burn out. If you come across a discarded atomizer in your child's trash can, it's a clear indication that he/she has been vaping.

What's a JUUL?



What's a Pod?

One Pod is equivalent to 1 pack of cigarettes.



Stronger E-Cigarette/Vape



Image Credit: https://vaping.com/blog/wp-content/uploads/2017/06/IMG_18993_01782.jpg

tobaccopreventiontoolkit.stanford.edu

Strength of a Pack



- 59 mg/ml = extremely high!
- 59 mg/ml = pack of cigarettes
- Use of benzoic acid
- **NOTE: EVERY JUULPOD CONTAINS NICOTINE!**

What are the long term effects:

When Inhaled:

- Irritation to the lungs, nose, and throat
- Coughing, shortness of breath and even wheezing

Some flavor chemicals, when inhaled, have been known to cause scarring in the lungs, a condition known as “popcorn lungs”.

When Exposed to Skin:

- Cracking and drying
- Little research; what are the long term effects?

DID YOU KNOW....

VAPING is the most common form of NICOTINE POISONING in young adults.

Initial symptoms of toxicity- eye irritation, sweating, excessive salivation, pale, rapid heart rate, high blood pressure, muscle tremors, dizziness, loss of balance and seizures

Late symptoms: diarrhea, cramping, lethargy, slow heart rate, low blood pressure, heart arrhythmias, muscle weakness, paralysis, difficulty breathing, coma, AND in extreme cases respiratory failure and death

One teaspoon of this sweet tasting e-cigarette liquid ingested by a young child can be lethal.

CALL 911 IN SEVERE CASES

POISON CONTROL 1-800-222-1222



The Brain on Nicotine

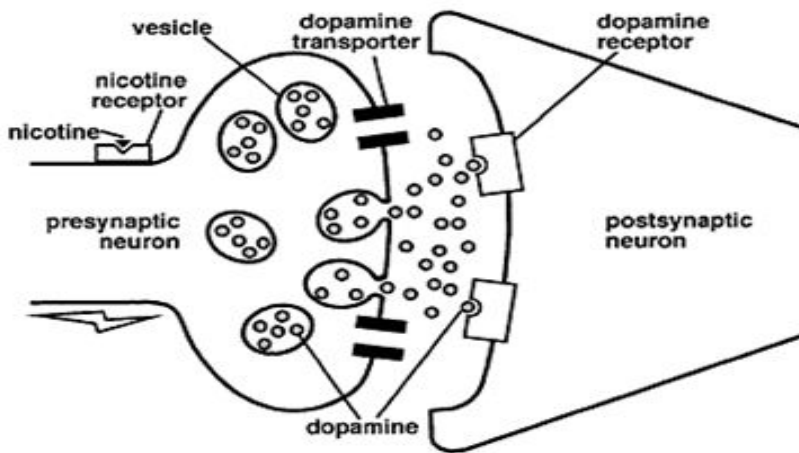


Image Credit: By United States: National Institute of Health via Wikimedia Commons



The Body on Nicotine

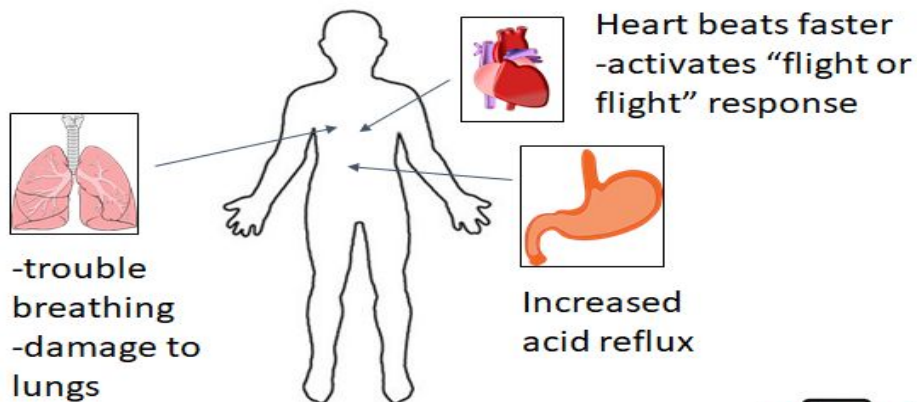
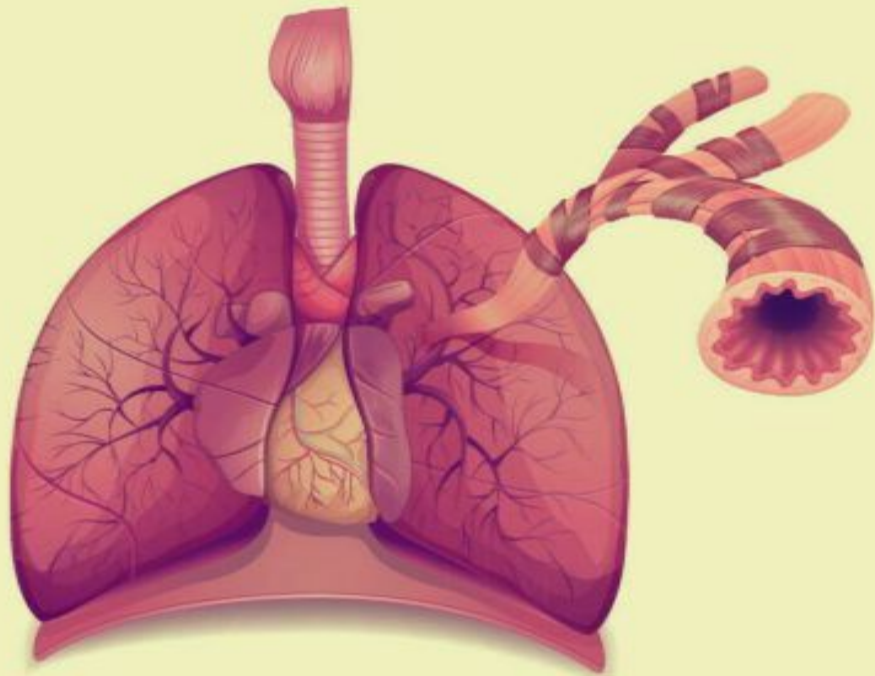
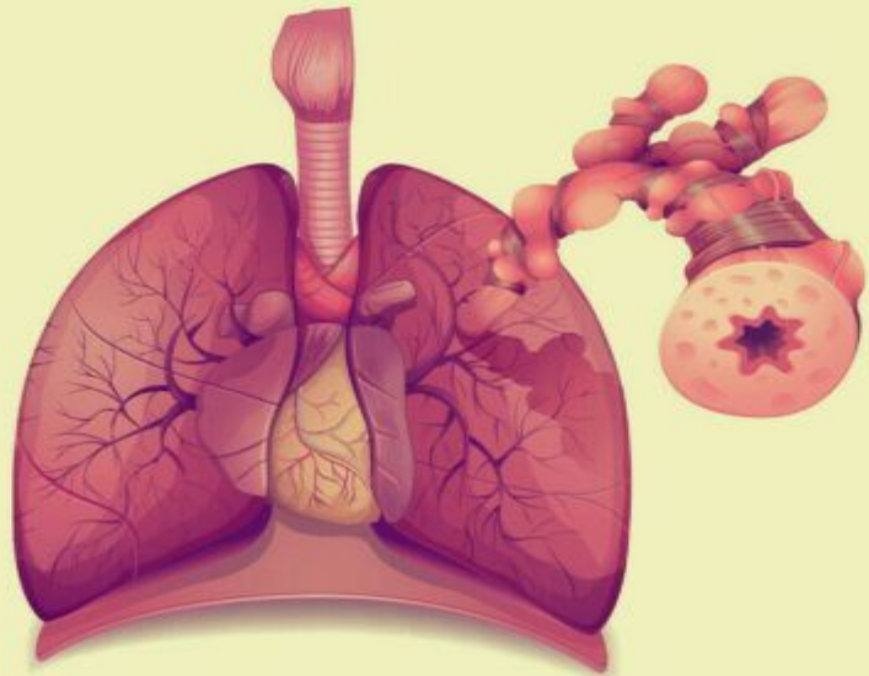


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NORMAL



POPCORN LUNG

Published by Namn on July 31, 2017

More Facts:

Adolescents are especially harmed by nicotine

- Nicotine affects a young person's developing brain. Brain development continues through the mid-20s.
- Effects of youth nicotine exposure include:
 - lower impulse control
 - depression or mood disorders
 - disruption of brain circuits that control learning
 - can prime young brains for future drug addiction¹

JUUL

- JUUL is a new vaping device that is popular on high school and college campuses
- Looks like a USB flash drive and charges when plugged into a laptop
- Small enough to fit into the palm of a hand



E-Liquids

- Used in vaping products like e-cigarettes
- Come in a range of sweet flavors and nicotine strengths
- Usually contain dangerous chemicals like propylene glycol and glycerin*



Electronic Nicotine Delivery Products

- Also called e-cigs, vape pens, vapes, e-hookahs, and tanks
- Battery operated devices that turn **flavored** liquid nicotine into aerosol that is inhaled
- Originally designed to mimic smoking traditional cigarettes
- Most commonly used tobacco product among youth



Chew and Dip

- Chew: tobacco leaves that are placed between cheeks and gums and “chewed.” Excess liquid is spit
- Dip: shredded tobacco leaves placed between lower lip and gum. Not chewed



Blunts and Blunt Wraps

- Usually associated with marijuana, but made of tobacco
- Sweet and cheap
- Contains nicotine



Tobacco is easy to get

- Tobacco is sold in convenience stores, gas stations, supermarkets... even in some pharmacies!
- This availability sends the message that tobacco is normal and fine.

....and availability leads to impulse buys.

Cheap



\$9.60

VS.



\$1.31

- According to the MA 2017 tobacco pricing survey, the average cost of a single cigar in a municipality with no pricing regulations was \$1.31.

Tobacco industry tactics are working

In 2015....

- Nearly half (44.8%) of MA high school youth had ever used e-cigarettes
- High school youth current use of e-cigarettes was higher than use of any other tobacco products* combined

Any tobacco is defined as cigarettes, cigars (including little cigars and cigarillos), and smokeless tobacco (such as chewing tobacco, snuff, or dip).

*

Electronic Nicotine Delivery Products: Sweet, Cheap, Easy to Get

- E-cigs, vape pens, and e-hookahs contain nicotine and are highly addictive
- Flavors are the LEADING reason that youth use e-cigarettes¹
- Some varieties are sold for prices below a pack of cigarettes
- Sold in pharmacies, corner stores, and other places youth frequent
- E-cigs were featured in the 2016 Surgeon General's Report as an emerging public health threat

Resources



- JUUL Vapor Website – Frequently Asked Questions
<https://support.juulvapor.com/home/learn/faqs>
- PR Newswire – PAX Labs, Inc. Granted U.S. Patent For Nicotine Salt E-Cigarette
<https://www.prnewswire.com/news-releases/pax-labs-inc-granted-us-patent-for-nicotine-salt-e-cigarette-300196459.html>
- Vaping 360 – What JUUL Pods are the Most Popular Flavors to Buy?
<http://vaping360.com/juul-pods/>
- Vaping 411 – Everything You Wanted to Know About Nicotine Salts
<http://vaping411.com/nicotine-salts/>
- MSDSONline – Benzoic Acid – Uses and Safety
<https://www.msdsonline.com/2015/02/16/benzoic-acid-uses-and-safety/>
- Ad Age – JUUL Hopes to Reinvent E-Cigarette Ads with ‘Vaporized’ Campaign
<http://adage.com/article/cmo-strategy/juul-hopes-reinvent-e-cigarette-ads-campaign/299142/>

References

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2. Many published studies have shown this, including: Abreu-Villaca, Y. et al (2003). Short-term adolescent nicotine exposure has immediate and persistent effects on cholinergic systems: Critical periods, patterns of exposure, dose thresholds. *Neuropsychopharmacology*, 28 pp. 1935-1949.
3. Chaloupka, F., "Macro-Social Influences: The Effects of Prices and Tobacco Control Policies on the Demand for Tobacco Products," *Nicotine and Tobacco Research*, 1999; and others.
4. Henriksen, Schleicher, Feiughery and Fortmann. *Pediatrics: The Official Journal of the American Academy of Pediatrics*. July 19, 2010, DOI: 10.1542/peds.2009 3021.
5. New underage daily smoker estimate based on data from U.S. Dept of Health and Human Services(HHS), *Results from the 2014 National Survey on Drug Use and Health,* with the state share of national initiation number based on CDC data on future youth smokers in each state compared to national total. Information accessed July 2016 from:
http://www.tobaccofreekids.org/facts_issues/toll_us/massachusetts.