

WELLNESS CORNER

The e-cig/juul'ing/vaping has become an epidemic amongst today's youth. If you're like me, you have heard about e-cigs but didn't really know what to make of it. We've all seen the headlines over the last few years but the details seem to have gotten lost in the mix. I did some research and thought I would share what I found out to help other parents who may find themselves like I did, clueless on this epidemic. Here are some quick points -

1. JUUL is a brand of e-cigarettes, there are many brands (KILO, Blu, Logic, Halo, V2) but they all do the same thing, deliver the vape/smoke to your lungs. The device used to inhale looks like a pen or a USB flash drive. You can buy pre-filled cartridges or buy the juice and refill it yourself. You charge the device via a USB port.

2. The amount of nicotine in one pod is equal to a pack of cigarettes. This makes them highly addictive. So when someone quits, they could have withdrawal symptoms such as headache, nausea, shaking, coughing, phlegm, dizziness, etc.... Nicotine will raise your blood pressure and your heart rate, neither of which is good for your body. The packaging usually doesn't clearly state how much nicotine is in the pod so a lot of kids think they are only inhaling flavors. Not true. Some people think nicotine itself does not pose a danger, this is another misconception.

"The adolescent brain is particularly sensitive to the effects of nicotine. Studies in human subjects indicate that smoking during adolescence increases the risk of developing psychiatric disorders and cognitive impairment in later life."

3. There is no scent when someone is vaping so your child could be vaping in their room while you are home and you will never smell it.

4. Don't let anyone tell you it's not dangerous. Some of the chemicals used in the flavor pods are approved for digestion but not for inhalation. These devices use propylene glycol or glycerol to transport all of the nicotine and flavoring. These chemicals also create the big vapor cloud your child is exhaling. The problem is when you heat these "carrier fluids", they can transform into formaldehyde. Some, like diacetyl, are harmful when heated and inhaled. There are not enough long term studies to know exactly what the long term effects will be on a person's lungs. The only studies done so far show that it could cause "popcorn lung", basically shutting down the smallest part of your lungs which delivers air to alveoli, where gas exchange occurs. So, if you don't want to inhale oxygen and exhale carbon dioxide, start vaping. There are a lot more chemicals that we do not know about in these pods, so this is just the tip of the iceberg. You can read more about it and link to the studies here, <https://www.nytimes.com/2018/04/04/opinion/formaldehyde-diacetyl-e-cigs.html>

5. Studies have found the device can malfunction and cause burns while in your pocket (thigh or groin) or while it's being used (face or hand).

6. The cigarette companies created a new way to get a new generation to become addicted to nicotine and make billions of dollars. The law states you must be 18 years old to purchase any of these products.

These e-cigs are ubiquitous, they are highly addictive and contain dangerous chemicals. There is a lot of marketing information out there geared towards kids to make them feel it's only "flavor" and it's harmless but it's not. So please educate yourself with the facts. The FDA has concluded this is an epidemic with an increasing trajectory. They are currently working on initiatives and regulation to keep these devices away from our children. The first one, the Youth Tobacco Prevention Plan, launched earlier this year, has 3 strategies. To reduce our teenagers access to these products, to change the way tobacco companies market their products towards children and to educate our youth on the dangers of these products.

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***Deb is a guest writer for the wellness corner this month and is a parent of two of our South Hadley High School Students.**

2. Allen JG, Flanigan SS, LeBlanc M, Vallarino J, MacNaughton P, Stewart JH, Christiani DC. 2016. Flavoring chemicals in e-cigarettes: diacetyl, 2,3-pentanedione, and acetoin in a sample of 51 products, including fruit-, candy-, and cocktail-flavored e-cigarettes. *Environ Health Perspect* 124:733–739; <http://dx.doi.org/10.1289/ehp.1510185>
3. Sheckter C, Chattopadhyay A, Paro J, Karanas Y. Burns resulting from spontaneous combustion of electronic cigarettes: a case series. *Burns Trauma*. 2016;4:35. Published 2016 Dec 12. doi:10.1186/s41038-016-0061-9