



# SUMMER, 2019 SUMMER, 2019 Physicians Caringfor Kentucky

## VAPING

Vaping is the act of inhaling and exhaling vapor from an electronic cigarette or similar device. Many vaping "juices" contain large quantities of nicotine, which can quickly become addicting and difficult to quit. The JUUL(TM) device is popular with youth because it can be used discreetly--it looks like a USB device—and comes in flavors that appeal to young people.

#### Growing epidemic among Kentucky youth

The number of middle and high school students who currently vape has soared to about 3.6 million, according to the 2018 National Youth Tobacco Survey. Twenty-seven percent of high school seniors in Kentucky reported using e-cigarettes in 2018.

Vaping and e-cigarette use nearly doubled among Kentucky youth from 2016 to 2018, according to the Kentucky statewide student survey biannual evaluation to access the extent of tobacco, alcohol and drug use.



1 IN 5 HIGH SCHOOL STUDENTS 1 IN 20 MIDDLE SCHOOL STUDENTS CURRENTLY USE E-CIGARETTES



#### Most e-cigs contain nicotine

The Centers for Disease Control and Prevention says most e-cigarettes contain nicotine, which causes addiction, may harm brain development, and could lead to continued tobacco product use among youth.

The majority of e-cigarette users think they vape only flavoring, not nicotine, according to the University of Michigan's 2016 Monitoring the Future study.

### NICOTINE ONE POD = ONE PACK





1 vape pod .7ml 1 pack of 20 cigarettes

# **KNOW THE RISKS**

### Vaping is linked to brain damage and an increased risk of cardiovascular disease

The younger an adolescent brain is exposed to addictive substances, the more likely the individual will become addicted, according to Patrick Withrow, M.D., retired cardiologist and Director of Outreach for Baptist Health Paducah.

"The prefrontal cortex controls judgement and does not mature until around age 25," Withrow said. "The use of addictive substances with an immature brain impedes further development of the brain. The e-cig is the most effective drug delivery device and gateway drug I know of. There is no guestion in my mind that the highly addictive nicotine, flavorings, successful social media and other marketing will bring on another population of addicted kids to all manor of substances."

Stanford School of Medicine researchers and their colleagues recently found that e-cigarette flavorings damage human blood vessel cells grown in the lab even in the absence of nicotine.

"We found the e-liquids caused changes in the endothelial cells that are closely related to those seen during the development of cardiovascular disease," said Won Hee Lee, PhD, assistant professor at the University of Arizona.

### What can

#### Do not use any tobacco products

TALK about the dangers of smoking and the importance of avoiding any tobacco use (conventional cigarettes or ecigarettes)

- EDUCATE friends and family that ecigarettes contain nicotine, a HIGHLY addictive substance
- **ADVOCATE** for comprehensive tobacco prevention policies (that include ecigarettes)

### Why are e-cigarettes unsafe for kids, teens and young adults?

- Nicotine can harm the developing adolescent brain
- Most e-cigarettes contain nicotine
- · Nicotine addiction that occurs with e-cigarette use may lead to transition to use of combustible tobacco products
- · Addiction itself, whether to nicotine or other drugs, can drive undesirable behaviors

Source: American Heart Association



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