

Some Facts About E-cigarettes and Vapes

INGREDIENTS

E-cigs contain **nicotine**, an addictive drug that harms the developing brain (those under 25 yo). Other carcinogenic and toxic contents known to have adverse health effects include: diethylene glycol (used in antifreeze), diacetyl, acrolein, formaldehyde, nickel, lead & propylene oxide glycidol. The long term health hazards of *heated and aerosolized constituents* of e-cigarette liquids, including **solvents**, **flavorants**, and **toxicants**, are not completely understood.¹

INCREASED USE

At AHS e-cig & vaping use has increased dramatically over the last 2 years. In 2015 **14%** of students reported trying an e-cig or vape, and in 2017 nearly **22%** reported doing so. In 2014 e-cigarette use among 18-24 year olds surpassed those 25 years and older and has become the **most common** tobacco product used by youth.¹ (Arlington 2015, 2017 YRBS data)

TYPES



JUUL

A form of e-cigarette that looks similar to a USB. All products manufactured by JUUL deliver a high dose of nicotine. One "pod" is the equivalent to one pack of cigarettes.



E-cig/Dab pen

Devices on the left are examples of what a typical e-cigarette may look like, some are disposable and others rechargeable. The last one on the right is an example of a "dab pen". This is an e-cig that is refilled with e-liquid and sometimes THC oil



Vape

Vapes are refillable and rechargeable with a glycerin based e-liquid called "juice" containing nicotine. Some of these devices can deliver THC or marijuana.

MANIPULATION

E-cigarette companies deliberately market their products to youth and adolescents in the hope of fostering addiction and future users. The use of banned **flavorings** (like cotton candy and bubble gum) is a primary example of how these companies aim to appeal to youth. They use **social media** to market their products in addition to ads starring young attractive **models**. Some companies even have **celebrity partners** that are favored by younger generations, and offer prizes and giveaway incentives.¹

ADDICTION

Nicotine is a highly addictive drug present in most electronic cigarettes. A large concern about youth e-cig/vape usage, is that young users will **develop an addiction** to nicotine and progress to smoking conventional cigarettes or other drugs. One study claims the risk of smoking combustible cigarettes is doubled for those who smoke e-cigarettes. Nicotine damages the brain as it is developing, which is why those under 25 years old should avoid using products with nicotine. Additionally, according to the Surgeon General most tobacco use is established during adolescence. (2015)¹

RISKS

- The use of nicotine raises the risk of heart attack and cardiovascular disease as well as mouth, throat and lung cancer.
- There is **substantial** evidence that some chemicals present in e-cigarette aerosols (e.g., formaldehyde, acrolein) are capable of damaging DNA in a way that suggests prolonged exposure could increase risk of **cancer** and reproductive outcomes.²
- Second hand E-cig/vape vapor is **harmful**. There is **conclusive** evidence that E-cig use increases the level of particulates and nicotine in the air compared to normal levels.²
- There is **substantial** evidence that using E-cigs results in **dependence** on usage as well as an increased risk of using conventional cigarettes²

FOR MORE INFO

- **1. The Surgeon General Report (2015)**
The 2015 Surgeon General Report on Electronic Cigarettes can be accessed via e-cigarettes.surgeongeneral.gov. This website also has several resources, fact sheets and action plans available.
- **2. The National Academies of Sciences, Engineering and Medicine (2018)**
The National Academies reviewed research previously conducted on e-cigarettes. Their review of over 800 papers reveals what we know about E-cigs and what needs to be further developed. You may access the article "Public Health Consequences of E-cigarettes" via their website nationalacademies.org

