

E-cigarettes & Vaping

Recent data links the possibility that one in three high school students has or is currently using an e-cigarette/vape device. These devices are very popular among teens due to a number of reasons to include; easy availability, various e-liquid flavors like bubblegum, cotton-candy, breakfast cereals, and a belief that they are safer than regular cigarettes.

An e-cigarette is a device that is used to inhale an aerosol containing nicotine, flavored substances, and/or marijuana. It has four different components, which include the following;

- a cartridge/pod/reservoir used to hold vape juice/e-liquid solution. The “juice” will contain varying amounts of nicotine, flavors, and other chemicals.
- a heating element (atomizer)
- a power source (battery)
- a mouthpiece used to inhale the vapor

When activated, cartridges/pods containing e-liquid are heated, creating a vapor that is inhaled deeply into the lungs. FDA testing has found detectable levels of cancer-causing agents that could lead to an irreversible lung disease known as bronchiolitis obliterans or “popcorn lung.” Other studies suggest that certain brands of e-liquid contained higher levels of nickel and chromium, which may be a result of nichrome heating coils in the device itself.

Long term effects of e-cigarette or vaping use is still unknown, but for teenagers using these devices with nicotine can present with the following symptoms;

- bleeding gums
- stomach upset due to high levels of nicotine absorbed
- increases in blood pressure/heart rate
- persistent cough, now known as “vaper’s cough”
- impeded brain development in teens
- greater exposure to lungs due to deeper inhalation
- can lead to nicotine addiction and/or a gateway to drug abuse.

Vape juice/pods are sold in a variety of flavors to include, strawberry, honey nut cereal, watermelon, and even your favorite candy. Marijuana, in the form of THC oil can go undetected if added to a vape flavored pod. A study conducted in 2017, found teens were under the perception that fruit flavored substances were not harmful and were considered just a flavored smoke. Over half of the teens surveyed, had no idea that the juice/pods they were vaping could contain high doses of nicotine.

The latest vaping trend among teens is JUUL. It is an e-cigarette that is disguised to look like a flash drive and can even be plugged into your laptop to recharge. It may appear harmless but contains the equivalent of a pack of cigarettes worth of nicotine in each pod. Due to the fact that

vaping allows the user to inhale deeper because there is less throat irritation, this in turn forces carcinogens deeper into the lungs, which could lead to health consequences with repeated exposure to nicotine and other chemicals.

For more information visit:

<https://www.drugabuse.gov/publications/drugfacts/electronic-cigarettes-e-cigarettes> Vaping devices do not resemble that of cigarettes, device can be small, colorful, or imitate the look of other devices. Images below depict various vaping devices available for use.

