

## Let's Talk About...

# E-cigarettes: Questions and answers

E-cigarettes are tobacco products that turn nicotine, flavorings, and other chemicals into vapor you inhale (smoke or “vape”). Some look like regular cigarettes, while others look like pens or small flashlights.

They come in many colors, and the vapor comes in different flavors. Some flavors—grape, gummy bear, and tutti frutti—appeal to children.

E-cigarettes have an electronic device and a canister that holds a liquid solution (sometimes called e-liquid or e-juice). They have a heating element that vaporizes the solution. The vapor contains many chemicals, often including nicotine.

## Are e-cigarettes safe to use?

Because e-cigarettes are still fairly new, scientists don't yet know their long-term health effects. However, experts agree that e-cigarettes may be unhealthy. This is based on these facts:

- **E-cigarette users experience many of the same physical effects as smokers.** These include increased heart rate, airway tightening in the lungs, and short-term blood pressure increase.
- **E-cigarette vapor contains chemicals known to cause cancer, such as formaldehyde** (fer-MAL-duh-hide). E-cigarettes aren't well-regulated, so users may be exposed to many dangerous chemicals. The chemicals may come from the metal or plastic devices, which can get quite hot when used. They may also come from the solution in the cartridges, which typically don't list all ingredients.
- **It's hard (or impossible) to ensure users inhale a safe amount of nicotine.** Multiple studies have shown wide ranges in the amount of nicotine in e-cigarettes. Nicotine has even been found in products sold as nicotine-free. In general,

e-cigarette users receive much more nicotine than regular cigarette smokers.

## Is “secondhand vapor” dangerous?

Since e-cigarettes produce vapor, not smoke, many people assume they're safe to use indoors and around children. Unfortunately, new research suggests secondhand exposure to e-cigarettes is potentially harmful. People exposed to nicotine from e-cigarettes show similar effects to those exposed to nicotine from secondhand smoke. Also, blood tests reveal that these people have nicotine in their systems. Secondhand vapor may also transmit other dangerous chemicals to non-users and children.

Nicotine is not safe in any form. The U.S. Surgeon General has found that nicotine can cross the placenta and affect both fetal development and child development after birth. Nicotine exposure during pregnancy can cause many problems, including sudden infant death syndrome (SIDS).

## Do e-cigarettes help you quit regular cigarettes?

Although some people may say e-cigarettes helped them quit smoking, the science isn't yet clear. Current research suggests that e-cigarettes don't help you quit. In fact, it suggests they may lead to an increase in smoking:

- Adults who use e-cigarettes are more likely to continue smoking rather than quit.
- E-cigarettes may trigger the urge to smoke again when former smokers use them.
- Children who use e-cigarettes also begin smoking regular cigarettes. The CDC has called e-cigarettes “the gateway to smoking.”

