



HEALTH IMPACTS

OF E-CIGARETTES

Learn more below



Discover the truth about how these devices can harm you.

Lung Damage and Chemicals

You may have seen or heard about kids in your school or town using e-cigarettes. Some teens assume that using these devices—also known as vaping—is safe. After all, e-cigarettes can come in flavors, so how bad can they really be? The truth is that vaping exposes you to very real—and very scary—health risks. These include exposure to dangerous chemicals, as well as the drug nicotine, which can harm your brain and cause addiction.

E-cigarettes are battery-operated and create an aerosol for a user to inhale. When a person uses an e-cigarette, the liquid inside heats up and becomes the aerosol, which typically contains nicotine, flavorings, and chemicals, some of which are toxic. The e-liquids often come in flavors, and the chemicals used to create these flavors can be harmful. E-cigarette aerosol can also contain other chemicals like formaldehyde and metal particles such as nickel, lead, chromium, tin, and aluminum. Breathing in e-cigarette aerosol can deliver these chemicals to your lungs where they can cause damage.

Delivering Dangerous Nicotine

Toxic chemicals aren't the only harmful thing a person breathes in when they vape. Most devices also contain a drug called *nicotine*. This is the same highly addictive chemical found in other tobacco products like traditional tobacco cigarettes and smokeless tobacco ("dip"). In fact, some vapes can contain as much nicotine as a whole pack of cigarettes.

Using nicotine causes changes in the brain that make a person crave more of the drug. When someone vapes, nicotine gets into their bloodstream through their lungs and travels to their brain within 10 seconds. The drug causes a surge of a brain chemical called dopamine, which is known as a reward chemical. That

means it makes the person feel good, encouraging them to vape some more. This can lead to addiction.

Teens are even more vulnerable to addiction than adults because the brain continues to develop through a person's mid-twenties. Exposing an adolescent's brain to nicotine can cause problems with attention, learning, and memory that promote addiction to nicotine. Studies also show that teens who vape are more likely to start smoking traditional cigarettes. One likely explanation is that they've become addicted to nicotine.

What's Being Done?

Health experts are concerned about youth vaping because these products are dangerous and teens are becoming addicted. Health officials continue to crack down on illegal sales to minors and hold retailers and manufacturers accountable for marketing practices. The goal: to reduce the number of teens exposed to the health hazards of vaping.

Stay Safe

Some high schoolers say they vape because their friends do—either to feel cool or because they're afraid to say "no." The best way to reduce your exposure to the health hazards of vaping is to say "no." What would you do if another kid offered you an e-cigarette? Here are four ways to handle the pressure—and stay safe:

- Say "No, thanks," or "Nah, that's not my thing."
- Make a joke or change the topic.
- Say you're supposed to be somewhere and walk away.
- Talk to a friend, parent, or trusted adult.