

# Vaping is not a safe alternative

## VAPING DEVICES

The Food and Drug Administration (FDA) does not currently approve vaping devices as quit smoking aids. Most adult smokers that use e-cigarettes do not completely quit smoking and instead continue to use both products, known as “dual use.”



Vaping devices come in many shapes and sizes; some resemble pens, USB sticks, or other common items. Using an e-cigarette is also known as vaping.



# Vaping is not harmless



Vaping may introduce preteens and teens to other tobacco products, including cigarettes. Young people are often attracted to the flavored liquids used in vaping devices.



Vaping produces an aerosol by heating a liquid using a battery and a heating element. This aerosol is not just a water vapor and usually contains nicotine. This aerosol may contain harmful substances and particles, including heavy metals like lead and cancer-causing agents.



E-liquids used in vaping devices may be labeled as “generally recognized as safe,” but research shows that the safety applies to ingestion, not necessarily for other exposures, such as inhalation.

# Some toxins found in vapes include:



- Heavy metals such as nickel, tin, and lead.
- Diacetyl, a chemical than can cause serious lung disease when inhaled.



- Ultrafine particles that can damage lungs.
- Chemicals known to cause cancer.



Nicotine is a danger for pregnant women and is toxic to the brain of the developing fetus.



Studies suggest that flavors and other chemicals in e-liquid may harm the lungs when heated.



Vape flavors are not harmless. They are approved for ingestion, not inhalation.

## No long-term studies have been done on the health effects of vaping.

- Within seconds, nicotine causes a chemical reaction in the brain and body.
- This reaction can cause a buzz and relaxation. The brain connects a behavior to those feelings, which increases the odds the behavior will be repeated and can lead to nicotine addiction.
- The brain is more sensitive to nicotine until it is fully developed at age 25.
- Nicotine harms brain circuits that control attention and learning. These changes may lead to mood disorders, problems with impulse control, memory, and attention.