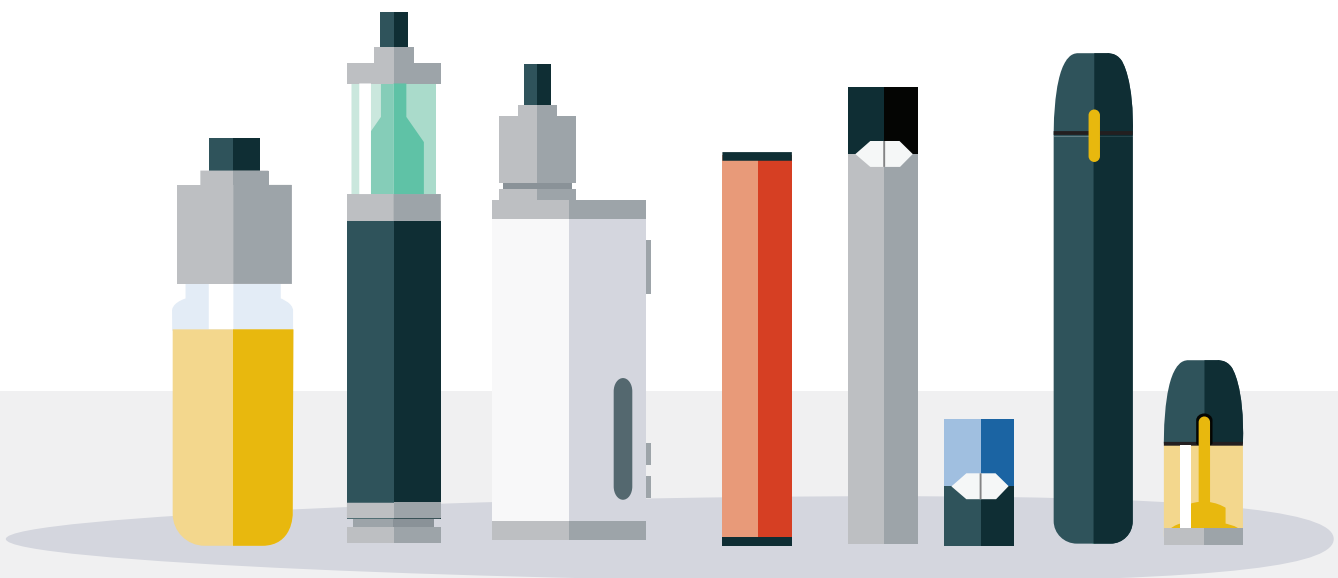


# HOW VAPES WORK

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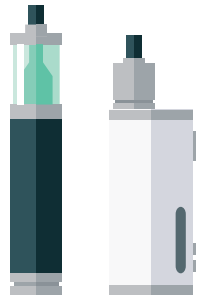
## UNDERSTAND THE DEVICES FUELING YOUTH ADDICTION TO NICOTINE

Vapes that contain nicotine are a type of tobacco product called electronic nicotine delivery systems (ENDS). Other names for vapes may include e-cigarettes, e-cigs, vape pens, vaporizers, and e-pipes. Vaping by youth is a public health concern affecting children, families, schools, and communities. This fact sheet describes vape devices and how they work.

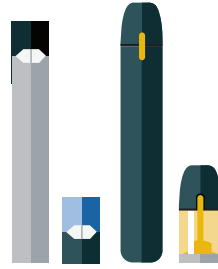


# VAPES COME IN MANY SHAPES AND SIZES.

Vapes can look like cigarettes, cigars, or pipes. Others are designed to look like everyday objects, such as a flash drive, smartwatch, or asthma inhaler. Some vapes are rechargeable for long-term use; other vapes are disposable or refillable after short-term use.



Tank Systems and Mods



Rechargeable



Disposable

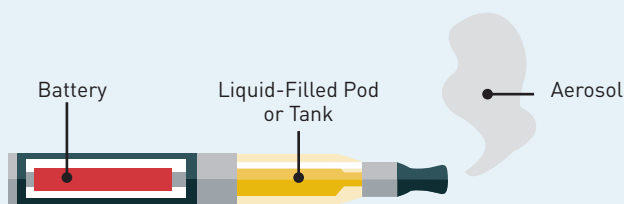
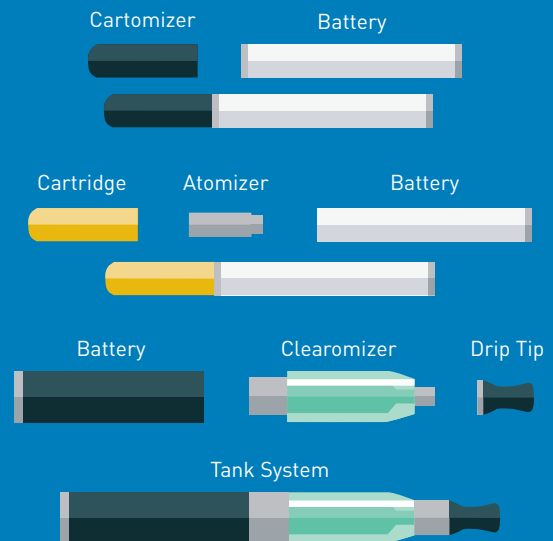


Stealth

## VAPES CONTAIN BATTERIES AND “E-LIQUID.”

ENDS contain a battery and a substance called “e-liquid.” Other names for the liquid are “e-juice” or “vape juice.” E-liquid may contain nicotine, flavorings, propylene glycol, vegetable glycerin, and other ingredients.

Vape devices also may include other parts. Depending on the device, these may include vials or cartridges that contain the e-liquid, atomizers, batteries, cartomizers, digital displays for setting adjustment, tank systems, drip tips, and programmable software.



## HOW VAPES WORK.

Vapes may look different but work in similar ways. They contain a battery and heat the e-liquid to create an aerosol that the user inhales. When exhaled, the aerosol may look like a thick cloud of vapor or it may be hard to see.

# VAPING CAN BE HARMFUL TO YOUTH.

Vapes may contain nicotine—the same highly addictive chemical in cigarettes. Using nicotine as a teen may have a lasting effect on attention, learning, and memory that promote addiction to nicotine. Vaping can put toxic metals such as nickel, lead, and chromium into the lungs. Some of the chemicals found in cigarette smoke, such as formaldehyde, acrolein, and acetaldehyde, are also found in some e-cigarette aerosols. Inhaling these chemicals can cause irreversible lung damage.

## MORE INFORMATION ABOUT VAPES AND VAPE DEVICES

### Vaping Facts, Statistics, Health Risks, Safety Information, and Federal Regulations

Check out the U.S. Food and Drug Administration's (FDA) Center for Tobacco Products (CTP) website for a wide range of information about vaping. The site includes facts, research, legal and regulatory information about ENDS, and information about devices and components. Find tips on how people can keep themselves, their families, and the environment safe and healthy. **Visit CTP's ENDS webpage at <https://bit.ly/3zejJ4A>**

### FDA Resources

Order and download FREE materials at FDA's CTP Tobacco Education Resource Library. The website contains many items for public health professionals and the public about tobacco products, e-cigarettes, and related information. Posters, fact sheets, flyers, and syndicated web content are available. **Visit [digitalmedia.hhs.gov/tobacco](https://digitalmedia.hhs.gov/tobacco)**

### Request a CTP Speaker

Want to hear more about vapes from a CTP expert? Find out how to request a CTP speaker for your next event. **Visit <https://bit.ly/3jk1x45>**

### Vaping Products Visual Dictionary

Learn more about types of vapes. The Centers for Disease Control and Prevention offers a comprehensive visual guide to vaping products—E-Cigarette, or Vaping, Products Visual Dictionary. **Visit <https://bit.ly/3hEgqup>**

### Help With Quitting

Help youth quit with Smokefree Teen. The website features a Quit Vaping section with resources to help teens quit and stay vape-free. **Visit [teen.smokefree.gov/quit-vaping](https://teen.smokefree.gov/quit-vaping)**



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