



Vape Waste and the Environment

Key Messages for Youth and Young Adult Advocates

Key Message #1: Vaping generates a significant amount of toxic and plastic waste.

- E-cigarette waste consists of microplastics, metals, nicotine, and combustible lithium ion batteries. Liquid nicotine is classified as hazardous waste by the Environmental Protection Agency (EPA).
- Vaping devices and their component parts are considered single-use plastics, which are plastic items made to be disposed of after use. This includes the device, pods, cartridges, e-liquid containers, and any product packaging.
- Single-use plastic accounts for half of all plastic created worldwide each year and the production is a major contributor to climate change and planet-warming greenhouse emissions.
- Disposable vapes, such as Puff Bar and Stig, are also considered single-use plastic products and cannot be thrown away in the trash or recycled with other plastics.
- Both vaping devices and its batteries contain hazardous substances, such as lead and mercury.
- It is estimated that over a billion pieces of plastic vape waste is created each year.

Key Message #2: E-cigarettes and their component parts are damaging to the environment.

- The residue of e-liquid from discarded pods and cartridges leak nicotine and other toxic chemicals into the soil, waterways, and can be ingested by wildlife.
- E-cigarette waste is not biodegradable, even under severe conditions.
- E-cigarettes left on the street will eventually break down into microplastics and chemicals that flow into the storm drains to pollute our waterways and wildlife.
- Lithium-ion batteries in e-cigarettes have been known to explode and cause fires in garbage trucks and waste management plants if damaged or exposed to extreme heat.

Key Message #3: There is no safe way to dispose of vape waste.

- Vape waste contains plastic waste (the device), toxic bio-hazard waste (nicotine), and electronic waste (the battery), each of which needs to be disposed of separately.
- More than half (57.8%) of past-30 day vape users found it inconvenient to dispose of e-cigarette waste responsibly.
- Many young e-cigarette users reported throwing away, improperly recycling, or littering disposable vaping devices or single-use plastic product accessories.
- While vapes such as Puff Bar, Stig, Ezzy, Switch, and Hype Bar are marketed as disposable, they are considered hazardous to the environment and should not be disposed of in the trash or recycled with other plastics.
- E-cigarette manufacturers do not provide guidance to consumers on how to dispose of used devices or their plastic components. Puff Bars, which are a disposable vaping device, provide minimal instruction on how to dispose of the device properly.
- There is currently no industry guideline for recycling e-cigarettes in the U.S. and no requirement in place to hold manufacturers accountable for the post-consumer waste they helped produce.

