

For Your Health:

Indestructible Vapes: A Problem in More Ways than One

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Earth Day reminds us of the relationship between our daily habits and our environmental footprint. While you may have already given some thought to your shopping habits, and done things like tried to reduce packaging on food and cleaning supplies, you may not have considered how a habit like vaping—which we all know negatively affects our health—can also affect our environment. As the vaping habit has increased, so has the amount of waste materials it generates, and that waste makes vaping an environmental problem in addition to a health one.

Vapes come in two types: reusable and single-use. Reusable vapes can be charged through a USB port and are generally used three to five times and discarded thereafter. Single-use vapes, as the name implies, are used just once, and are explicitly marketed by their manufacturers as “disposable.” Single-use vapes now make up over 50% of all the vapes that are sold.

Interestingly, selling disposable vapes is not technically legal in the United States. The Food and Drug Administration (FDA) has not authorized disposable vapes, or any flavored vapes with nicotine, for that matter, for consumption. This hasn't stopped smoke shops and gas stations from stocking them on their shelves or these products—and their contents—from entering our environment.

Vaping devices come in many shapes and sizes, but they all have three components: a cartridge to hold the nicotine liquid, a lithium-ion battery, and a heating element to create nicotine vapor. Nicotine cartridges and lithium-ion batteries each have their own, unique risks, not only to human health but to the environment as well.

Since 1980, nicotine has been labeled by the Environmental Protection Agency (EPA) as an acute hazardous substance. Used as a pesticide, nicotine is highly toxic to humans and animals and kills aquatic wildlife when improperly disposed of as chemical waste (this is why you should never pour e-liquid down the drain or toilet). For these reasons, nicotine-containing products are classified as “hazardous household waste.”

Furthermore, the lithium batteries used in vapes are highly flammable and known for their volatility. The danger of fire can exist at any point when a vape is stored, used, or discarded and, while uncommon, battery failure while vapes are carried or used can even result in severe personal injury. Between January 2009 and December 31, 2016, there were 195 fires and explosions from e-cigarettes reported by U.S. media sources, according to the Federal Emergency Management Agency (FEMA), 38 of which resulted in severe injury.

Unfortunately, the presence of chemicals (nicotine), flammable components (the lithium battery), and other materials (generally, plastics and some metals) make the safe disposal of vapes very challenging, and most places lack the regulation and infrastructure to do it. As a result, most vapes end up in landfills or sewers, where they leach toxic chemicals into our environment.

While vape waste feels like a complex and rather hopeless problem, there are some things that can be done. For starters, always avoid just tossing them outdoors where they will leak chemical waste into the ground. Also avoid buying disposable vapes; these single-use products cannot be dismantled, and therefore cause the most damage to the environment. When the lithium-ion batteries can be separated from other components of a vape, drop them off for recycling at local participating retailers including Staples, Lowes, and Home Depot, and each of Greene County's Solid Waste Transfer Stations (and until you can drop them off, keep them in a cool dry place in a plastic storage bag).

There are even better solutions for safe vape disposal, though these are not widespread. In August 2022, Monroe County became one of the few jurisdictions in the nation – and the first county in New York – to accept vape devices, e-cigarettes, and cartridges to send to another facility for incineration. They collected over 5500 vapes in the disposal program's first year, most of which had been collected at schools.

Ultimately, the most responsible solution for vape disposal is for New York State to include these products in its Extended Producer Responsibility Laws. Making manufacturers responsible for the end of a product's life can ensure that they take the burden off the public for the environmental problems their products create.

While we all know the health problems associated with vaping, the impact of our vaping habits on the earth may be a new idea, and perhaps even a new source of motivation to quit. For a list of recommended resources to help quit the habit, please visit the website of Tobacco-Free Action of Columbia and Greene Counties at www.rvwtobaccofree.org.

The Healthcare Consortium is a non-profit organization with a mission of improving access to healthcare and supporting the health and well-being of the residents in our rural community. The agency is located at 325 Columbia St. in Hudson. For more information: visit www.columbiahealthnet.org or call 518-822-8820.