

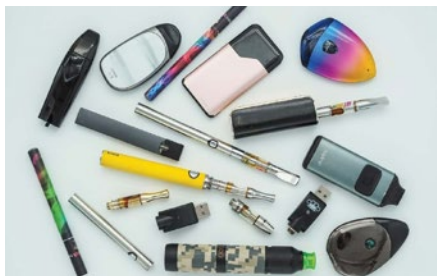
The Burden of Tobacco on the Environment

Single-Use Plastics and Disposable Vapes



WHAT ARE SINGLE-USE PLASTICS?

Single-use plastics are just what they sound like: a plastic item that is made to be disposed of after use. Common examples of single-use plastics include bottles, wrappers, straws, and plastic bags. Single-use plastic accounts for half of all plastic created worldwide each year - over 150 million tons - and only about 90% of that plastic is actually recycled. Left alone, these plastic items never fully breakdown but instead become microplastics that can contaminate waterways, oceans, ecosystems, and even the air we breathe. The production of single-use plastics is also a major contributor to climate change and planet-warming greenhouse emissions.^{1, 2, 3}



SINGLE-USE PLASTICS AND VAPING DEVICES

Vaping devices and their component parts are considered single-use plastics. This includes the device itself and all pods, cartridges, e-liquid containers, and any product packaging. Disposable vapes are also classified as a single-use plastic product. After use, all of these items are considered hazardous for the environment and are referred to as vape waste.^{4, 5}



THE ENVIRONMENTAL IMPACT OF PLASTIC VAPE WASTE

Vape waste is particularly hazardous for the environment because it creates plastic waste (the device, cartridges, and pods), toxic bio-hazard waste (the nicotine), and electronic waste (the battery) - each of which needs to be disposed of separately. Device manufacturers do not provide guidance or take responsibility for the disposal of their product's vape waste. As a result, the majority of vape waste is thrown in the trash, flushed, or littered. Once discarded, the cartridges and pods can leak toxic heavy metals into our soil and water system, posing a danger to both wildlife and humans. It is estimated that over a billion pieces of plastic vape waste is created each year, and there is no safe way to dispose of any of it.^{6, 7, 8, 9}



THE GROWING POPULARITY OF SINGLE-USE DISPOSABLE VAPES AMONG YOUTH AND YOUNG ADULTS.

Single-use disposable vapes have become increasingly popular with young people in the last year. The surge in popularity is due to a loop hole in the federal policy regulating flavored e-cigarettes, which limits flavored closed pod systems like Juul, but exempts pre-filled disposable products, like Puff Bars. The availability, low cost, and variety of youth-friendly flavors accounts for the **1000% increase of disposable vape use among high school students in the last year**. Popular disposable vape brands include Puff Bar, Stig, Ezy, Switch, and Hype Bar. Like other vape waste, there is currently no way to safely dispose of any of these single-use disposable vapes.^{10, 11}

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- 1 Natural Resources Defense Council (2020). Single-Use Plastics 101. Retrieved from: <https://www.nrdc.org/stories/single-use-plastics-101>.
- 2 National Geographic (2019). The World's Plastic Pollution Crisis Explained. Retrieved from: <https://www.nationalgeographic.com/environment/article/plastic-pollution>.
- 3 Hamilton, L., Feit, S., Muffett, C., et al., (2019). Plastic & Climate: The Hidden Costs of a Plastic Climate. Center for International Environmental Law.
- 4 California Department of Public Health (2021). Vape Waste: More Harmful Than You Think. Retrieved from: <https://tobaccofreeca.com/environment/vape-waste-more-harmful-than-you-think>.
- 5 Hendlin Y. H. (2018). Alert: Public Health Implications of Electronic Cigarette Waste. American journal of public health, 108(11), 1489-1490. <https://doi.org/10.2105/AJPH.2018.304699>.
- 6 Truth Initiative (2020) What are Puff Bars? Retrieved from: <https://truthinitiative.org/research-resources/emerging-tobacco-products/what-are-puff-bars>.
- 7 U.S. Food and Drug Administration (2020). Tips for Safe Disposal of E-Cigarettes and E-Liquid Waste. Retrieved from: <https://www.fda.gov/tobacco-products/products-ingredients-components/tips-safe-disposal-e-cigarettes-and-e-liquid-waste>.
- 8 Public Health Law Center (2019). Disposing of E-Cigarette Waste. Retrieved from: <https://www.publichealthlawcenter.org/sites/default/files/resources/Disposing-of-E-Cigarette-Waste-FAQ-for-Schools-and-Others.pdf>.
- 9 Truth Initiative (2021). A Toxic, Plastic Problem: E-cigarette waste and the Environment. Retrieved from: <https://truthinitiative.org/research-resources/harmful-effects-tobacco/toxic-plastic-problem-e-cigarette-waste-and-environment>.
- 10 Gentzke AS, Wang TW, Jamal A, et al. Tobacco Product Use Among Middle and High School Students - United States, 2020. MMWR Morb Mortal Wkly Rep 2020;69:1881-1888. DOI: <http://dx.doi.org/10.15585/mmwr.mm6950a1>
- 11 Truth Initiative (2020). New Federal Data: Flavored e-cigarettes continue to drive youth vaping epidemic with disposable use up 1,000% among high schoolers. Retrieved from: <https://truthinitiative.org/research-resources/emerging-tobacco-products/new-federal-data-flavored-e-cigarettes-continue-drive>.