

YOUTH AND FLAVORED TOBACCO PRODUCTS

When it comes to youth vaping and flavored tobacco products, finding the latest scientific research findings can be challenging, so we have compiled a summary of the latest research and the consensus of how flavors are influencing youth use of tobacco products. If you would like to know more about any of these topics or have questions about other commercial tobacco control topics, please contact trdrp@ucop.edu.



Courtesy of Stanford Research into the Impact of Tobacco Advertising (SRITA)

THE SCIENTIFIC CONSENSUS

- The vast majority of young people's [first experience with vaping](#) involves flavored tobacco products.
- E-cigarette flavors like cotton candy, cupcake, butterscotch, pop rocks, and peanut butter cup play a big role in attracting youth. Flavored more so than plain e-cigarette use is [strongly associated](#) with cigarette smoking susceptibility among non-smoking youth.
- The [chemosensory literature](#) confirms that children and adolescents are strongly inclined towards sweet foods and sweet flavors generally.
- Flavors enhance the pleasure of using tobacco products.
 - [Mint or menthol](#) blocks pain receptors in the mouth and throat and stimulates receptors that cause a cooling sensation in different parts of the body.
 - Flavored e-cigarettes contain compounds that [reduce the product pH](#), which may increase nicotine's bioavailability in the body, potentially leading to more addiction and dependence.

THE LATEST SCIENCE

- Vaping reached an [all-time high](#) in 2021, according to the National Institutes of Health (NIH)-sponsored Monitoring the Future study, nearly tripling levels from 2017.
- In one large prospective cohort study, flavors such as fruit and candy were associated with [continued vaping over time](#) as well as more puffs per vaping episode compared with tobacco and menthol/mint flavors.
- Another study found [using menthol the first time](#) someone vapes is more likely to be associated with continued vaping compared to non-flavored e-cigarettes.
- [Diacetyl, acetoin, and 2,3-pentanedione](#) were found in up to 90% of flavored e-cigarettes tested. These compounds [cause respiratory disease](#).

HEALTH EQUITY

- The tobacco industry advertises more in heavily Black and Asian neighborhoods. In one study, [menthol cigarettes were found to be cheaper](#) in neighborhoods with the most youth, Black residents, and low-income households.
- More than [77% of Black smokers use menthol](#) versus 23% of white smokers, and Black smokers also have higher rates of lung cancer than white smokers.
- Since most adult smokers start in adolescence, preventing youth from accessing menthol cigarettes or e-cigarettes is a lifelong [health equity issue](#).
- Removing menthol from the market could prevent [thousands of African American deaths](#) annually.