The Truth About

E-cigarette Liquids

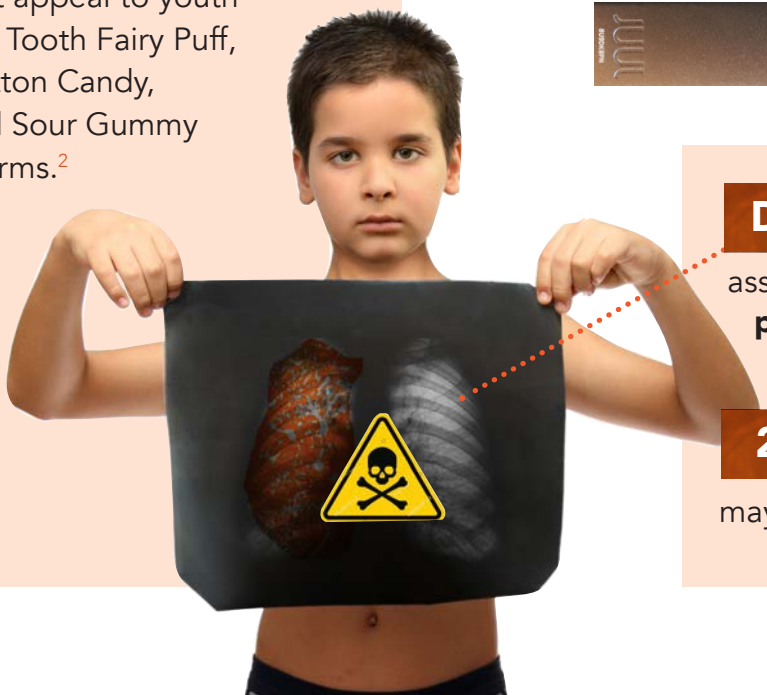
Big Health Concerns in Small Bottles

What is an e-cigarette liquid?

E-cigarette liquids are the liquids that are added to e-cigarettes and other vaping devices. They are also called e-liquids, e-juice, or vape juice. They contain nicotine and flavoring chemicals which are dangerous to inhale.

Over 15,000 e-cigarette liquid flavors exist![1]

Chemicals added to e-liquids make them taste sweet like fruit, candy, and other flavors that appeal to youth like Tooth Fairy Puff, Cotton Candy, and Sour Gummy Worms.[2]



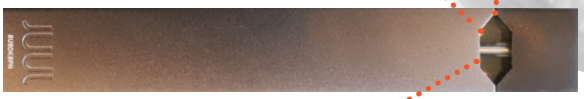
Common Flavoring Chemicals[3]

Benzaldehyde

respiratory irritant that **causes death in rabbits** exposed to it

Cinnamaldehyde

found to be **toxic to human cells** at certain doses



Diacetyl

associated with a condition called **popcorn lung** which **damages cell lining** and **scars the lungs**

2,3-Pentanedione

may also cause **popcorn lung**

Some Flavoring Chemicals are Toxic to the Lungs.[3]

While many chemicals found in flavorings are generally regarded as safe to eat, the **health impact of inhaling them is unknown** and can cause harm.

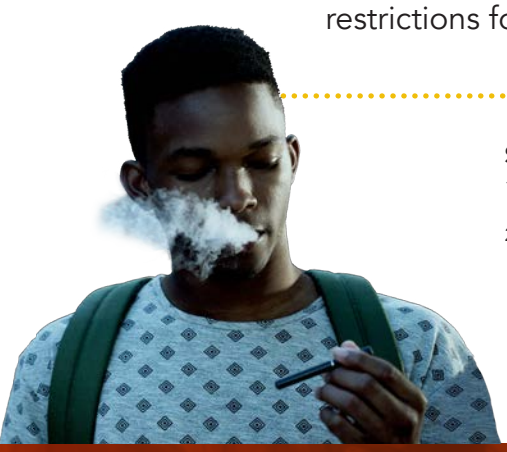
The FDA has banned the sale of flavored cigarettes (other than menthol) because **they appeal to youth**. But flavored e-cigarettes, e-liquid, hookah, cigars, and chewing tobacco **continue to be sold**.

Protecting Our Youth

Prohibiting the sale of all flavored tobacco products is a critical step to preventing another generation of young people from living with a lifetime of addiction.

Additional steps include:

1. **Talk to your children and their friends** about the harmful chemicals that exist in flavored e-liquids.
2. **Get help with quitting.** Call 1-800-NO-BUTTS (1-800-662-8887) for free help quitting for yourself, a family member or friend.
3. **Contact your local elected officials** and ask them to take steps to protect your community's youth from easy access to flavored tobacco products.
4. **Support increased federal regulation** of product and manufacturing standards, ingredient labeling, health warnings and marketing restrictions for e-liquids.



Sources:

1. Hsu, G., Sun, J.Y., & Zhu, S.H. (2018). *Evolution of electronic cigarette brands from 2013-2014 to 2016-2017: Analysis of brand websites.* Journal of Medical Internet Research, 20(3). doi: 10.2196/jmir.8550.
2. King, B.A., Dube, S.R., & Tynan, M.A. (2012). Flavored cigar smoking among U.S. adults: Findings from the 2009 – 2010 National Adult Tobacco Survey. *Nicotine & Tobacco Research*, 15(2), 608-614.
3. Fowles, J., & DiBartolomeis, M. (2017). *Toxicological concerns from inhaled food flavorings found in electronic (e-) cigarette aerosols: A report from the environmental health investigations branch.* Richmond, CA: California Department of Public Health.

CDPH California Department of PublicHealth

©2018 California Department of Public Health. 06/18

For more information, visit TobaccoFreeCA.com