

# E-liquid and Children

*E-liquid is a fluid used in electronic cigarettes (e-cigarettes). It is heated into an aerosol (vapor) that users inhale. E-liquid comes in over 7,000 flavors, like tobacco, mint, bubble gum, and grape,<sup>1</sup> many of which appeal to children.*

## Ingredients<sup>2</sup>

There is no standard process for making e-liquid. But it often contains:

- Nicotine, the addictive drug in regular cigarettes
- Propylene glycol or vegetable glycerin
- Flavorings, which can include unsafe contaminants like trace metals
- Water

## Aerosol<sup>2</sup>

E-liquid aerosol is not just “water vapor.” Aerosol can contain:

- Nicotine, which can be absorbed by non-users like children
- Carcinogens like:<sup>3</sup>
  - » Formaldehyde
  - » Benzene
- Traces of metal and other chemicals



## Poisoning Risks

The nicotine solution in e-cigarettes, also known as e-juice, is not just harmless “juice.” Children have been poisoned from e-liquid.<sup>2</sup>

- A new law requires childproof packaging for e-liquid, but it may take time before it is fully enforced.<sup>4</sup>
- Flavors, like gummy bear and cotton candy, may entice children to drink from e-liquid bottles or put e-cigarette cartridges in their mouth.
- Swallowing nicotine or having any contact with the skin can cause nausea and vomiting.<sup>3</sup>
- Some children have gone to the ER because of severe poisoning from e-liquid, with symptoms such as seizures and serious breathing problems.<sup>5</sup>

## How to Keep Children Safe<sup>5</sup>

- Always keep e-cigarettes and e-liquid locked up and out of the reach of children.
- Safely dispose of e-liquid. Put used bottles or cartridges in a sealed container, like a plastic bag. Mix in something inedible, such as dirt, cat litter, or used coffee grounds.
- If a child swallows e-liquid or gets it on their skin, immediately call your local poison center at 1-800-222-1222.

<sup>1</sup>Zhu S-H, et al. Four hundred and sixty brands of e-cigarettes and counting: implications for product regulation. *Tobacco Control*, 2014.

<sup>2</sup>CDC. Use of Tobacco Products. (2016, Jan). Retrieved 7/5/16 from <http://www.cdc.gov/tobacco/campaign/tips/diseases/dual-tobacco-use.html>

<sup>3</sup>American Lung Association. E-cigarettes and Lung Health. (2016, June). Retrieved 7/5/16 from <http://www.lung.org/stop-smoking/smoking-facts/e-cigarettes-and-lung-health.html>

<sup>4</sup>Congress.gov. Child Nicotine Poisoning Prevention Act of 2015. Retrieved on 7/12/16 from <https://www.congress.gov/bill/114th-congress/senate-bill/142>

<sup>5</sup>American Association of Poison Control Centers (AAPCC). E-cigarettes and Liquid Nicotine. Retrieved 7/5/16 from <http://www.aapcc.org/alerts/e-cigarettes/>