What are Electronic Smoking Devices?

Electronic smoking devices, often called *e-cigarettes*, heat and vaporize a solution that typically contains nicotine, and are often designed to mimic the look and feel of a real cigarette, while others resemble pens or other innocuous objects.

The devices are metal or plastic tubes that contain a cartridge filled with a liquid that is vaporized by a battery-powered heating element. The aerosol is inhaled by the user when they draw on the device, as they would a regular cigarette. The user then exhales a cloud of secondhand aerosol which includes toxins and other pollutants.

Electronic smoking devices are currently unregulated products. Most electronic smoking devices contain nicotine, and some companies claim to sell nicotine-free cartridges. They come in a wide variety of designs, flavors, and nicotine levels. These are not one uniform product but hundreds of different products.

Electronic Smoking Device Aerosol is *Not* Water Vapor

Supporters claim that electronic smoking devices release “nothing but water vapor.” However, *water is not an ingredient in electronic smoking devices.*

The “smoke” you see is NOT a “vapor”: it is an aerosol containing toxins like those listed in the infographic (below) from the Chicago Department of Public Health.

Electronic Smoking Devices (ESDs) and Smokefree Laws

Electronic smoking devices are called:
- Electronic cigarette
- Hookah pen
- E-cigarette
- Personal vaporizer
- E-hookah
- Vape Pen/Vapor pen
- E-vapor device
- Vapor cigarette
- And more!

Sample of Electronic Smoking Devices:

- Disposable e-cigarette:
- Rechargeable e-cigarette:
- Disposable hookah pen-style device:
- Pen-style rechargeable device:
- Tank-style rechargeable device:

Electronic Smoking Devices: The Facts

Electronic Smoking Devices Are Not Emission-Free

The first peer-reviewed study to look at exposure to aerosol from electronic smoking devices (ESDs) in real-use conditions found that non-smokers who were exposed to conventional cigarette smoke and ESD aerosol absorbed similar levels of nicotine.


<table>
<thead>
<tr>
<th>CHEMICAL</th>
<th>CHEMICAL EMISSIONS (µg/150 PUFFS – 70 ML/PUFF) INDIRECT EXPOSURE</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Minimum</td>
</tr>
<tr>
<td>ADETALDERHYDE</td>
<td>2.0</td>
</tr>
<tr>
<td>ACROLEIN</td>
<td>&lt;0.02</td>
</tr>
<tr>
<td>ACETALDEHYDE</td>
<td>3.2</td>
</tr>
<tr>
<td>ACETALDEHYDE</td>
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</tr>
<tr>
<td>LEAD</td>
<td>0.03</td>
</tr>
<tr>
<td>NICKEL</td>
<td>0.11</td>
</tr>
<tr>
<td>NICOTINE</td>
<td>5,770</td>
</tr>
<tr>
<td>NNN*</td>
<td>&lt;0.0001</td>
</tr>
<tr>
<td>PROPYLENE GLYCOL</td>
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</tr>
</tbody>
</table>


"If you are around somebody who is using e-cigarettes, you are breathing an aerosol of exhaled nicotine, ultra-fine particles, volatile organic compounds, and other toxins."
— Dr. Stanton Glantz, Director for the Center for Tobacco Control Research and Education, UCSF

ESDs are not a proven smoking cessation device; they are an alternative nicotine delivery device that will maintain or restore the habit, and can hook a new generation addicted to nicotine. ESD proponents are deceptively marketing the products to the public—especially to young adults via online media—as a “safe” alternative to smoking and an easy way to quit smoking tobacco cigarettes.

ESDs come in an impossibly long list of enticing flavors that historically have appealed to youth, from Gummy Bear to Bubble Gum to Vanilla Cupcake to Lemon Chiffon Pie. Rechargeable ESDs allow users to mix their own “e-juice” to create their own flavor combinations and potentially create higher nicotine levels.

A June 2014 study found that some chemicals used as flavorings in ESD liquid are approved by the FDA for food use (ingestion), but they are not approved for inhalation, and are, in fact, associated with respiratory disease when inhaled.

- In 2014, 2.5 million middle and high school students used e-cigarettes. Source: CDC MMWR, April 2015
- More high school students use e-cigarettes than conventional cigarettes. E-cigarette use increased from 1.5% in 2011 to 13.4% in 2014, while cigarette use declined from 16% to 9% in that time. Source: CDC MMWR, April 2015
- One in three students perceived e-cigarettes as being less harmful than conventional cigarettes and these students were more likely to have used e-cigarettes. Source: www.ncbi.nlm.nih.gov/pubmed/25044196
Cities are Including Electronic Smoking Devices in Smokefree Laws

As of October 2016, 566 U.S. municipalities and 10 states include electronic smoking devices (ESDs) as products that are prohibited from use in smokefree environments.

From New York City to Indianapolis, and Chicago to Los Angeles, communities are choosing to expand their smokefree air laws to not allow the use of ESDs in all smokefree environments (indoors and outdoors) so that workers & the public don’t have to breathe the toxic aerosol that they emit.

Other examples of cities addressing ESDs in smokefree workplace laws including Bessemer, AL; Madison, KY; Prentiss, MS; and Waxahachie, TX.

Americans for Nonsmokers’ Rights and our public health partners encourage municipalities and states to prohibit the use of ESDs in all smokefree venues, where people may be exposed to the secondhand aerosol they emit.

It is the right and responsibility of our elected officials to take action to protect public health and safety.

How Can My Community Ensure Smokefree Workplaces Stay that Way?

It’s very simple. If your community has a 100% smokefree air law, the law can be amended by adding a definition of “electronic smoking device” and amending the definition of “smoking” to include electronic smoking devices (ESDs).

If your community is protected by a strong statewide smokefree law, then you can adopt a law to prohibit the use of ESDs wherever the state law prohibits smoking. This is also an opportunity to close any gaps that may exist in your state smokefree law.

If your community is not yet protected by a 100% smokefree law for all workplaces and public places, now is a great opportunity to consider adopting a law that addresses both tobacco smoking and ESD use in those spaces.

You can find definitions in ANR’s model law for smokefree workplaces and public places at https://nonsmokersrights.org/sites/default/files/2017-09/modelordinance.pdf

What is the FDA doing about Electronic Smoking Devices?

In May 2016, the FDA finalized a rule to regulate e-cigarettes and other electronic smoking devices as tobacco products. This means that the sale of ESDS to minors is prohibited, manufacturers must disclose ingredients, and products must include health warning labels, among other regulations that will go into effect over the next few years. However, the FDA does not have the authority to address where the products may be used. Cities and states can and are enacting laws that regulate when and where ESDs can be used, as well as where the products can be sold.
Myths & Facts about ESDs

**Myth:** Electronic smoking devices (ESDs) are harmless! They only emit water vapor.

**Fact:** The aerosol emitted by ESDs is not water vapor. The aerosol contains many substances, including nicotine, ultrafine particles, volatile organic compounds and toxins known to cause cancer. There is enough peer-reviewed, published scientific evidence to determine that second-hand aerosol is not harmless. It’s a new source of air pollution that should not be permitted in smokefree environments.

**Myth:** I quit smoking by using an ESD! Do you want to prevent people from quitting tobacco?

**Fact:** ESDs are not proven cessation devices. While some individuals have quit smoking tobacco by using ESDs, studies indicate that ESDs may not be helpful at the population level. Many people become “stable dual-users” who use both cigarettes and ESDs. Including ESDs in smokefree laws does not prohibit people from using these unregulated products, rather they simply must step outside to use them, just like people do to smoke cigarettes.

**Myth:** Nicotine is no more harmful than caffeine!

**Fact:** Not true! Nicotine is an addictive and very poisonous drug in even small amounts. Nicotine exposure can negatively impact developing fetuses as well as teenage brain development. Nicotine also reacts with other chemicals to create tobacco-specific carcinogens. The potential hazards to non-users in a shared air space are due to more than just nicotine.

**Myth:** I own a vape shop. I’m a small business owner that creates jobs and pays taxes in our community. If you included ESDs, I’ll lose money and so will the city.

**Fact:** Thus far this has not been proven to be true. The tobacco industry has historically used “small business” arguments and threats, but smokefree laws have not been found to be damaging to business. If the shop is in a strip mall and shares the air with other businesses, these workplaces should not be exposed to unwanted secondhand aerosol.

What to Expect from the Opposition

Electronic smoking device (ESD) manufacturers and proponents seek to enable use of these products in otherwise smokefree spaces in order to maximize profits. They are actively engaged in efforts to prevent regulation of where the products can be used. This is especially true now that the big U.S. tobacco companies and their retailer networks are fully engaged in the ESD industry.

<table>
<thead>
<tr>
<th>Tobacco Company</th>
<th>Cigarette Brands</th>
<th>ESD Brands</th>
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</thead>
<tbody>
<tr>
<td>Altria</td>
<td>Marlboro, Virginia Slims</td>
<td>MarkTen</td>
</tr>
<tr>
<td>Reynolds American</td>
<td>Camel, Kool</td>
<td>Vuse</td>
</tr>
<tr>
<td>Lorillard</td>
<td>Newport</td>
<td>Blu</td>
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Communities should expect to hear from local ESD users (“vapers”) and vape shop owners, but also from out-of-state opposition groups, such as Consumer Advocates for Smoke-free Alternatives Association (CASAA) and Vaping Militia. These groups have generated email blasts and Twitter bombing to City Councils from ESD supporters located around the U.S., who are not local constituents. Opponents to including ESDs in smokefree laws have taken a page directly from the tobacco industry’s playbook. They will claim that ESDs are harmless, that they contain only water vapor, that using them indoors is necessary to help people quit smoking, and other arguments that aim to create doubt and confusion.

For instance, Los Angeles radio stations aired ads by Blu, owned by Lorillard Tobacco Company, and Vuse, owned by Reynolds American, asking people to attend a City Council hearing to oppose a proposed ordinance to not allow ESD use in smokefree spaces. Thankfully, the City Council resisted the industry pressure and voted unanimously to include ESDs in the city’s smokefree air law.

Tobacco vs ESD Ads. Source: [http://tobacco.stanford.edu](http://tobacco.stanford.edu)