

Electronic Smoking Devices (ESDs) and Smokefree Laws



www.no-smoke.org/ecigs.html

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.

Sample of Electronic Smoking Devices:

Disposable e-cigarette:



Rechargeable e-cigarette:



Disposable hookah pen-style device:



Pen-style rechargeable device:



Tank-style rechargeable device:

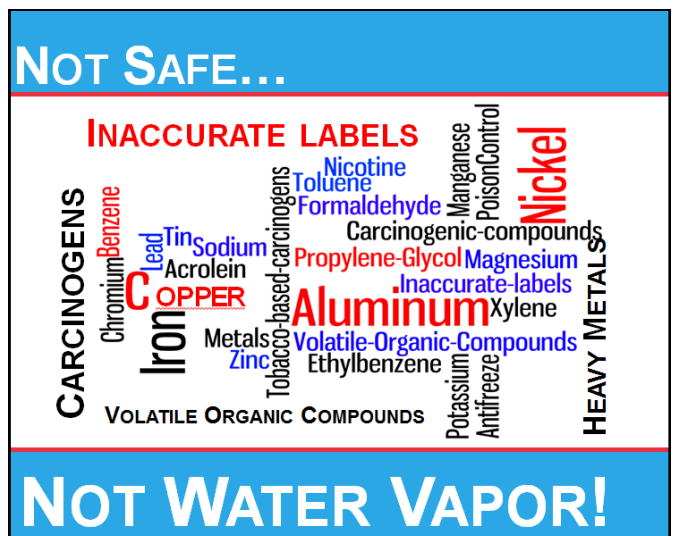


Adapted from: Grana, Benowitz, & Glantz. (2013). Background Paper on E-cigarettes (Electronic Nicotine Delivery Systems). UCSF Center for Tobacco Control Research and Education. Hookah pen source: imperialcigs.com

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.



The aerosol (incorrectly called vapor) contains **nicotine, hazardous ultrafine particles** that lodge deeply in the lungs of nonsmokers, and **toxins** known to cause cancer. This is why it is not appropriate to use these products in smokefree environments, such as workplaces.

Electronic smoking devices are unregulated products that have no requirements for ingredient disclosure, accurate labeling or quality control.

Electronic smoking devices are called:

- ◇ Electronic cigarette
- ◇ E-cigarette
- ◇ E-hookah
- ◇ E-vapor device
- ◇ Hookah pen
- ◇ Personal vaporizer
- ◇ Vape Pen/Vapor pen
- ◇ Vapor cigarette
- ◇ And more!

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.

"Cigarettes vs. e-cigarettes: Passive exposure at home measured by means of airborne marker and biomarkers." *Environmental Research*, Volume 135, November 2014.

TABLE 1 Chemical emissions of selected compounds from e-cigarettes for exposure analyses.

CHEMICAL	CHEMICAL EMISSIONS (µG/150 PUFFS – 70 ML/PUFF) INDIRECT EXPOSURE	
	Minimum	Maximum
ACETALDEHYDE	2.0	13.6
ACROLEIN	<0.02	41.9
FORMALDEHYDE	3.2	56.1
CADMIUM	<0.04	0.22
LEAD	0.03	0.57
NICKEL	0.11	0.29
NICOTINE	5,770	19,060
NNK ^a	<0.0001	0.028
PROPYLENE GLYCOL	250,950	828,750

Offermann, Bud. "The Hazards of E-Cigarettes." *ASHRAE Journal*, June 2014.

"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

Tempting a New Generation into Nicotine Addiction

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.



Source: www.smokelessdelite.com

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. **Remember: ESD's are not regulated by the FDA.**

- ◆ Half of middle and high school students (13.1 million) were aware of e-cigarettes, 6.8% (1.8 million) had ever used e-cigarettes, and 2.1% (550,000) reported having used e-cigarettes in the past thirty days.
- ◆ 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: <http://www.fda.gov/TobaccoProducts/ProtectingKidsfromTobacco/ucm405173.htm>

Cities are Including Electronic Smoking Devices in Smokefree Laws

As of October 1, 225 U.S. municipalities and three states include electronic smoking devices (ESDs) as products that are prohibited from use in smokefree environments. See the full list at www.no-smoke.org/pdf/ecigslaws.pdf.

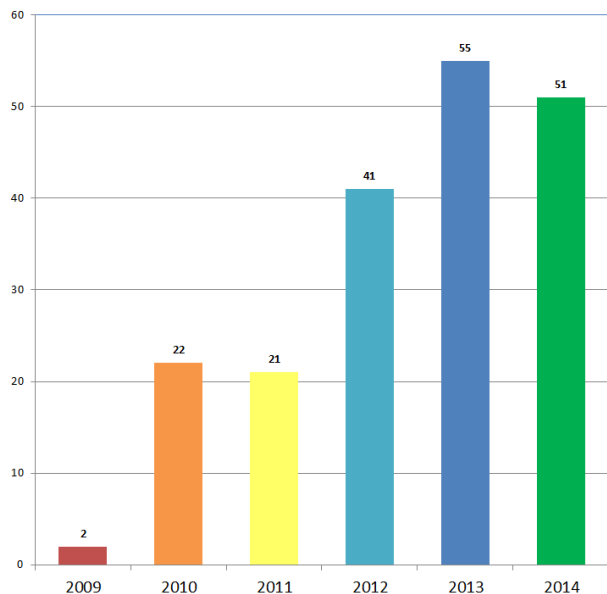
From **New York City** to **Indianapolis**, and **Chicago** to **Los Angeles**, communities are choosing to expand their smokefree air laws to not allow the use of ESDs in all smokefree environments (indoors and outdoors) so that workers & the public don't have to breathe the toxic aerosol that they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

Number of Smokefree ESD Laws by Year



How Can My Community Ensure Smokefree Workplaces Stay that Way?

It's very simple. If your community has a 100% smoke-free 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% smoke-free air 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 smoke-free workplaces and public places at www.no-smoke.org/pdf/modelordinance.pdf



Sign for Chicago's smokefree law, which includes ESD use.

What is the FDA doing about Electronic Smoking Devices?

While the FDA can and should regulate electronic smoking devices as tobacco products, they do 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 laws that regulate sales to minors and where the product can be sold. In other words, city and state lawmakers should not wait for the FDA to address these products.

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.

<u>Tobacco Company</u>	<u>Cigarette Brands</u>	<u>ESD Brands</u>
Altria	Marlboro, Virginia Slims	MarkTen
Reynolds American	Camel, Kool	Vuse
Lorillard	Newport	Blu

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 play-book. 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 Reynold 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>



www.no-smoke.org/ecigs.html
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This publication was produced in partnership with the American Nonsmokers' Rights Foundation (ANRF), an educational nonprofit 501(c)(3) organization, which educates people about the benefits of smokefree air, and the right to breathe smokefree air. ANRF provides educational resources for schools, health departments, medical organizations, and others interested in the issues surrounding smoking and secondhand smoke and the benefits of smokefree environments.