



E-Cigarettes and Public Health

The future of Vermont's clean indoor air

coalition for a
**TOBACCO
FREE
VERMONT**



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Vermonters have enjoyed clean indoor air for over ten years, when smoking was finally prohibited in Vermont restaurants and bars. Our smoke-free laws were enacted to protect our citizens in public places and workplaces from second-hand smoke.

These laws helped encourage workers to quit smoking and created positive social norms that have significantly helped drive down state and adult cigarette smoking rates to *18 percent* of the population and youth rates to *13.3 percent*.

Unfortunately, tobacco is still the leading cause of death in Vermont and costs the state over *\$348 million* in tobacco-attributable health care costs, with *\$87 million* covered by state Medicaid. Also, the latest YRBS shows *30 percent* of Vermont high-schoolers have tried e-cigarettes and *15 percent* are current users.

Vermont needs to include e-cigarettes in our Clean Indoor Air law to:

1. Protect against secondhand exposure to nicotine and other harmful chemicals
2. Ensure our existing smoke-free laws are enforced
3. Protect the significant progress and public health benefits we have achieved in our state

Clean Indoor Air Laws Timeline

1987: Smoking in
the Workplace
Law Passed



1995: Smoking in
Public Places Effective



2005: Cabaret
Exemption Eliminated



1993: Smoking in Public Places
Law Passed



2014: Hotel rooms and motor
vehicles with children in car
seats added.



What are E-Cigarettes?



Chemicals identified in some e-cigarette aerosol include:

- Propylene glycol
- Nicotine
- Tobacco-specific nitrosamines
- Metals
- Volatile organic compounds
- Polycyclic aromatic hydrocarbons
- Flavorings

Are they addictive?

Do they contain Nicotine?

What We Do Know

- E -cigarettes are typically battery-operated products designed to deliver a heated solution, or aerosol of nicotine and other chemicals, to the user.
- The level of nicotine a user receives varies widely on the product and whether its customizable or not, as well as the potency of the e-cigarette liquid.
- Customizable products can be used to aerosolize non-tobacco products such as marijuana and hashish concentrates.
- Studies have shown that the use of e-cigarettes can cause short-term lung changes and irritations, while the long-term health effects are unknown.

E-Cigarette “Aerosol” Contains Potentially Harmful Chemicals and Nicotine is Harmful to Brain Development in Adolescents

- E-cigarettes release chemicals and particles into the air. E-cigarette use in enclosed, indoor spaces has the potential to concentrate the released airborne chemicals, increasing the risk to bystanders.
- A growing number of studies have examined the contents of e-cigarette aerosol. Unlike a vapor, an aerosol contains fine particles of liquid, solid, or both. Propylene glycol, nicotine, and flavorings were most commonly found in e-cigarette aerosol. Other studies have found the aerosol to contain heavy metals, volatile organic compounds and tobacco-specific nitrosamines, among other potentially harmful chemicals.
- Adolescents are still going through critical periods of brain growth and development, and are especially vulnerable to the toxic effects of nicotine.

“We want parents to know that nicotine is dangerous for kids at any age, whether it’s an e-cigarette, hookah, cigarette or cigar,” said CDC Director Tom Frieden, M.D., M.P.H. “Adolescence is a critical time for brain development. Nicotine exposure at a young age may cause lasting harm to brain development, promote addiction, and lead to sustained tobacco use.”

60 year old male smoker presents one day after using e-cigarettes



Cough, short of breath, fevers



3 days later, feeling better

3 out of 4 Vermont e-cigarette users also use traditional cigarettes (BRFSS 2014)

- E-cigarettes are not included in the 7 medications currently approved and proven safe and effective by the FDA for smoking cessation, including patches, lozenges and gum. Free patches, lozenges and gum are available in Vermont through 802Quits.
- Allowing e-cigarette use in public places normalizes smoking behavior. The act of smoking is re-glamorized for Vermont children and adults alike who see e-cigarettes used in public places.
- In 2014, only 11 percent of Vermont smokers completely converted to e-cigarettes, as the majority of e-cigarette users continue to smoke.

Ninth graders who had tried e-cigarettes were far more likely than other students to start smoking “combustible tobacco” (cigarettes, cigars, hookahs) within a year. - Study published in the Journal of the American Medical Association, August 2015.

A TIP FROM A
**FORMER
SMOKER**

**I started
using e-cigarettes
but kept smoking.
Right up until
my lung collapsed.**

Kristy, age 35, Tennessee

Kristy had smoker's cough and severe shortness of breath. She tried using e-cigarettes to cut down on her smoking. She thought cutting down would make her feel better, but it didn't. She kept smoking cigarettes until her lung collapsed.

Even smoking a few cigarettes a day is dangerous.

You can quit smoking.

CALL 1-800-QUIT-NOW.



U.S. Department of
Health and Human Services
Centers for Disease
Control and Prevention
[CDC.gov/tips](https://www.cdc.gov/tips)

#CDCTips

THANK YOU!

Questions?

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