



# Electronic Nicotine Delivery Devices

## Data on Secondhand Exposure

- Electronic nicotine delivery devices emit a secondhand *aerosol* with ultrafine particles- not a “harmless water vapor”. According to the American Academy of Pediatrics (AAP), “The aerosol emitted from e-cigarettes contains a variety of toxic chemicals, including some carcinogens and significant amounts of nicotine.” The AAP also states “*Parents should not use e-cigarettes around their children.*”<sup>1</sup>
- The aerosol contains at least **10 known carcinogens** including formaldehyde and nickel. It also contains toxins including cadmium (commonly found in batteries), isoprene, nicotine, and lead (known to damage nervous system and causes blood disorders).<sup>2,3,4</sup>
- **Bystanders** exposed to the aerosol **absorb nicotine** (measured as cotinine), with one study showing levels *comparable to secondhand smoke from traditional cigarettes.*<sup>5</sup> According to the Surgeon General, nicotine exposure during adolescence, a critical window for brain development, may have lasting adverse consequences for brain development.
  - Per the AAP, ENDS use exposes nonusers, including at-risk populations such as children and pregnant women, to nicotine and other harmful toxicants from secondhand *and* thirdhand aerosol. **Studies show that thirdhand aerosol residue**, or the nicotine level on surfaces, **increases after ENDS use.**<sup>6</sup>
- Chemicals emitted by electronic smoking cause eye, throat, and airway irritation.
- Unlike traditional cigarettes, e-cigarettes often emit no odor, leaving bystanders unaware if they are inhaling secondhand aerosol. Bystanders are potentially exposed to additional risk as ENDS increasingly are used to vape marijuana, spice, and hash oil since vaping does not emit an odor like traditional cannabis smoke.
- Many professional organizations including the **World Health Organization, the National Institute for Occupational Safety and Health, the American Heart Association, the American Academy of Pediatrics, National Association of County and City Health Officials, the American Industrial Hygiene Association, and the American Public Health Association** recommend incorporating use of electronic nicotine delivery devices into existing smoke free air laws.

## Summary

- As of October 2, 2015, 438 municipalities and 8 states have added electronic smoking devices as products that are prohibited from use in smoke free environments including Indianapolis/Marion County.<sup>7,8</sup>
- **Smoking**, whether tobacco or electronic, **doesn't hurt just the user.** Secondhand smoke AND secondhand e-cigarette aerosol affects bystanders. Electronic smoking devices or electronic nicotine delivery devices should be treated like traditional tobacco products.
- **Monroe County has always been a leader in moving to protect citizens from the dangers of secondhand smoke. It should lead again and include electronic nicotine delivery systems in our clean air ordinance.**

## Sources

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- 6) "Electronic Nicotine Delivery Systems". (November 2015). PEDIATRICS From the American Academy of Pediatrics (136) 5. Retrieved from <http://pediatrics.aappublications.org/content/pediatrics/early/2015/10/21/peds.2015-3222.full.pdf>
- 7) "Electronic Smoking Devices and Secondhand Aerosol". (2015). Americans for Nonsmokers' Rights. Retrieved from <http://www.no-smoke.org/pdf/ecigarette-secondhand-aerosol.pdf>
- 8) States include Connecticut, Delaware, Hawaii, Maine, North Dakota, New Jersey, Oregon and Utah. For a complete list of e-cigarette restrictions, visit <http://www.no-smoke.org/pdf/ecigslaws.pdf> and <http://publichealthlawcenter.org/sites/default/files/The-Legal-Landscape-for-Electronic-Nicotine-Delivery-Systems-07102015.pdf>