

Orange County Board of Health Proposed Rule Prohibiting Use of Electronic Cigarettes in Enclosed Areas of Restaurants and Bars

The Orange County Board of Health has proposed a rule to prohibit the use of electronic cigarettes in indoor areas of restaurants and bars. The Board will be considering all available health research and information on this topic and encourages community members to provide public comments to inform their decision.

- **Online Survey**— <http://tinyurl.com/proposed-ecig-rule> - *Closes April 24, 2016*
- **Telephone Message Line**— 919-245-2480 - *Closes April 24, 2016*
- **E-mail**— smokefreeoc@OrangeCountyNC.gov - *Closes April 24, 2016*
- **U.S. Mail**—*Closes April 24, 2016*
Orange County Health Department
Attn: Proposed E-Cig Rule
300 W. Tryon Street, Hillsborough, NC 27278
- **Public Hearing**—*April 27, 2016*
7:00 p.m.—Wednesday, April 27, 2016
Orange County Health Department
300 West Tryon St., Hillsborough
If you anticipate needing Interpreter services call 919-245-2424.

To review the full text of the proposed rule visit:

<http://www.orangecountync.gov/departments/health/Proposed%20BOH%20Rule%20-%20E-cig%20use%20in%20bars%20and%20restaurants%20-%20April%202016.pdf>

Frequently Asked Questions

Why did the Orange County Board of Health initiate a rule to prohibit use of electronic cigarettes in restaurants and bars? The Board of Health became concerned about electronic cigarettes because of their alarming popularity among youth. Although most adults who use e-cigarettes are looking for an alternative to conventional cigarettes or are trying to quit smoking, e-cigarettes are contributing to an overall increase in tobacco use among youth. Preliminary data from 2015 show that approximately four out of ten local high school students have tried an e-cigarette, and two out of ten high school students are current users.

There is a misperception that the aerosol emitted by electronic cigarettes is just water vapor, but it often contains nicotine and can contain chemical flavorings and additional toxins known to irritate the lungs or cause disease, making it less safe than clean air.ⁱ Research suggests that a non-user may be exposed to secondhand aerosol particles in an indoor setting, and the Board considers this an avoidable health risk for the public and for employees of restaurants and bars. Clean air—free of both smoke and electronic cigarette aerosol—is the standard to protect health.

Why is the proposed ban focused on enclosed areas of bars and restaurants? Secondhand exposure to electronic cigarette aerosol, if not regulated, can reasonably be expected to follow similar patterns

as secondhand smoke. Research shows that restaurants were once significant sites of secondhand exposure for children and adults, even the principal point of exposure for children from non-smoking homes.^{ii,iii} In addition, servers and bartenders in places where smoking was permitted were exposed to high levels of secondhand smoke, and among the highest concentrations of nicotine measured in public places were those found in bars and lounges.^{iv,v} It is important to protect the public and employees in those places where involuntary exposure is likely to be highest. The proposed rule is consistent with the National Institute for Occupational Safety and Health recommendation that all workplaces prohibit the use of e-cigarettes. Restaurants and bars are already smoke-free, and it would be a step backwards to not maintain that clean air standard.

How would the rule differ from existing laws and ordinances? Existing laws prohibit smoking in enclosed areas of restaurants and bars, but do not address the use of electronic cigarettes. This proposed Board of Health rule complements that by prohibiting use of electronic cigarettes in enclosed areas of Orange County's restaurants and bars that are already smoke-free.

Why is this Orange County's responsibility? Local boards of health have the responsibility to protect and promote the public's health and to adopt rules necessary for that purpose (N.C. Gen. Stat. 130A-39(a)). Studies suggest that concentrations of some flavor chemicals in e-cigarette fluids are sufficiently high for inhalation to be of toxicological concern.^{vi,vii} A study of several dozen flavored electronic cigarettes sold by leading brands found that most of the products tested emitted aerosols containing potentially harmful chemicals.^{viii} Several chemicals commonly used as flavorings in e-cigarettes, such as diacetyl and cinnamaldehyde, have known associations with respiratory disease.^{ix,x} In addition, aerosolized chemicals commonly used as carrier solutions, such as propylene glycol, can irritate the upper respiratory tract and may have other chronic adverse health effects.^{xi,xii,xiii} The Board of Health wishes to protect people from secondhand exposure to these potentially harmful chemicals.

There is support for people who want to quit using tobacco, including electronic cigarettes. You can talk to your health care provider about quitting and ask about appropriate medications available through your health insurance plan or employer's insurer. You can also use the free quitting support services of QuitlineNC at 1-800-QUIT-NOW (1-800-784-8669) or www.QuitlineNC.com. The Health Department offers free nicotine replacement therapy (patches, gum, and lozenges) for people who enroll in the Quitline or participate in our Freshstart classes, while supplies last. For more information, visit: http://www.orangecountync.gov/departments/health/smoking_cessation.php

How would this rule be implemented and enforced?

Restaurants and bars will be required to post signs clearly stating that use of electronic cigarettes is prohibited. People using electronic cigarettes in areas where it is prohibited will be directed to stop. The Local Health Director is responsible for ensuring that establishments follow the rule, and there will be an online complaint form and a voicemail line where complaints about alleged violations can be logged.

ⁱ Letter of Scientific Evidence Regarding Electronic Nicotine Delivery Systems (ENDS; including electronic cigarettes) from Tim McAfee, MD, MPH, Senior Medical Officer, Office on Smoking and Health, U.S. Centers for Disease Control and Prevention (April, 2015), available at <http://www.tobaccopreventionandcontrol.ncdhhs.gov/Documents/CDC-LetterofEvidenceonElectronicNicotineDeliverySystemsNorthCarolina-April2015.pdf>.

ⁱⁱ Klepeis NE. An introduction to the indirect exposure assessment approach: modeling human exposure using microenvironmental measurements and the recent National Human Activity Pattern Survey. *Environmental Health Perspectives*. 1999;107(Suppl 2):365–74.

-
- ⁱⁱⁱ U.S. DHHS. (2006). The Health Consequences of Involuntary Exposure to Tobacco Smoke: A Report of the Surgeon General. U.S. DHHS, CDC, Coordinating Center for Health Promotion, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health.
- ^{iv} Jarvis MJ, Foulds J, Feyerabend C. Exposure to passive smoking among bar staff. *British Journal of Addiction*. 1992;87(1):111-3.
- ^v Jenkins RA, Counts RW. Personal exposure to environmental tobacco smoke: salivary cotinine, airborne nicotine, and nonsmoker misclassification. *Journal of Exposure Analysis and Environmental Epidemiology*. 1999;9(4):352-63.
- ^{vi} Tierney, P. A., Karpinski, C. D., Brown, J. E., Luo, W., & Pankow, J. F. (2015). Flavour chemicals in electronic cigarette fluids. *Tobacco Control*. TC Online First. 10.1136/tobaccocontrol-2014-052175.
- ^{vii} Lerner CA, Sundar IK, Yao H, Gerloff J, Ossip DJ, McIntosh S, Robinson R, Rahman I. (2015). Vapors produced by electronic cigarettes and e-juices with flavorings induce toxicity, oxidative stress, and inflammatory response in lung epithelial cells and in mouse lung. *PLoS One* 10:e0116732.
- ^{viii} Allen, J. G., Flanigan, S. S., Leblanc, M., Vallarino, J., Macnaughton, P., Stewart, J. H., & Christiani, D. C. (2015). Flavoring Chemicals in E-Cigarettes: Diacetyl, 2,3-Pentanedione, and Acetoin in a Sample of 51 Products, Including Fruit-, Candy-, and Cocktail-Flavored E-Cigarettes. *Environmental Health Perspectives*. DOI:10.1289/ehp.1510185
- ^{ix} Farsalinos, K. E., Kistler, K. A., Gillman, G., & Voudris, V. (2014). Evaluation of Electronic Cigarette Liquids and Aerosol for the Presence of Selected Inhalation Toxins. *Nicotine & Tobacco Research*, 17(2), 168-174.
- ^x Behar RZ, Davis B, Wang Y, Bahl V, Lin S, Talbot P. (2014). Identification of toxicants in cinnamon-flavored electronic cigarette refill fluids. *Toxicol In Vitro* 28: 198-208.
- ^{xi} Varughese, S., Teschke, K., Brauer, M., Chow, Y., van Netten, C., & Kennedy, S. M. (2005). Effects of theatrical smokes and fogs on respiratory health in the entertainment industry. *American Journal of Industrial Medicine*, 47, 411-418.
- ^{xii} Product Safety Assessment: DOW™ Propylene Glycol. The DOW Chemical Company. October 3, 2013. Available at: http://msdssearch.dow.com/PublishedLiteratureDOWCOM/dh_08ea/0901b803808eabba.pdf?filepath=productsafety/pdfs/noreg/233-00248&fromPage=GetDoc. Accessed February 19, 2016.
- ^{xiii} Wieslander G, Norback D, Lindgren T. (2001). Experimental exposure to propylene glycol mist in aviation emergency training: acute ocular and respiratory effects. *Occup Environ Med* 58: 649-655.