



# MEMO

**To:** Mayor and City Council  
**From:** Brian Phillips, Management Analyst  
**Date:** June 19, 2015  
**Subject:** E-Cigarette Regulation

At the May 26, 2015 City Council meeting, the City Council requested that the topic of e-cigarette regulation be placed on a future agenda. The original memo to the City Council regarding the health effects of e-cigarettes is attached.

Since that report, City staff has learned that on June 16, the City of Iowa City passed first reading of an ordinance restricting the use of e-cigarettes in the same public places that tobacco cigarettes are restricted. That ordinance has not yet been adopted on final reading. The Iowa City documents are attached.

The University of Iowa has also recently taken action regarding e-cigarettes. It has included e-cigarettes in the list of products that may not be used on campus. This change goes into effect at the start of the fall semester, August 24<sup>th</sup>.

City staff has not yet been able to reach out to Iowa State University to determine the status of its policies regarding e-cigarettes. However, staff will work to contact ISU staff prior to the City council meeting on Tuesday.

**Attachments:**

“Health Risks of E-Cigarettes” - May 19, 2015 memo to City Council  
Ordinance Amending Title 6 – June 16, 2015 Iowa City e-cigarette ordinance  
Iowa City Municipal Code Chapter 10 – Smoke Free Places



**To:** Mayor and City Council  
**From:** Brian Phillips, Management Analyst  
**Date:** May 19, 2015  
**Subject:** Health Risks of E-Cigarettes

At the April 14, 2015 City Council meeting, the City Council requested a memo outlining existing research regarding the direct and secondhand health effects from the use of e-cigarettes. **The research that follows comes with the caution that no member of City staff is a medical research expert. Therefore, our ability to analyze the merits of particular medical claims and studies is limited.**

A common theme to existing research on health effects of e-cigarettes, or electronic nicotine delivery systems (ENDS), is that such research is limited. Research regarding secondhand effects is even further difficult to obtain and evaluate. These devices were invented in the 1960s but have only become widely used in the United States in the past decade. Few studies on the health effects of long-term primary or secondary exposure to ENDS have been completed. This is in contrast to traditional cigarette smoking health effects, which have been studied in short and long-term studies for decades.

### **Primary Health Effects of ENDS:**

ENDS are generally not subject to regulation by the Food and Drug Administration (FDA). ENDS marketed for therapeutic purposes are regulated by the FDA, as are cigarettes, cigarette tobacco, roll-your-own tobacco, and smokeless tobacco.<sup>1</sup> The FDA has proposed a rule that would allow its regulatory authority to extend to all ENDS, but that rule has yet to be put into effect.

The FDA and other groups have conducted small-scale tests of a handful of common models of ENDS and cartridges to determine the delivered quantities of nicotine and other substances. These tests have suggested that nicotine amounts delivered can vary substantially under repeat testing. However, amounts delivered often fall substantially short of advertised levels. The FDA and other investigators believe that these variations are

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<sup>1</sup> Food and Drug Administration. Electronic Cigarettes (e-Cigarettes).  
<http://www.fda.gov/NewsEvents/PublicHealthFocus/ucm172906.htm> Accessed May 15, 2015.

likely a mark of poor quality control in manufacturing processes.<sup>2 3</sup> Others have indicated that ENDS require users to create a greater vacuum than a common cigarette, and that puff strength must increase as the cartridge empties. This makes determining the amounts of inhaled compounds in each model of ENDS difficult. Even tests of the same model cartridge in the same testing apparatus can yield inconsistent results.<sup>4</sup>

In 2010, the American Cancer Society, American Heart Association, American Lung Association, and the Campaign for Tobacco-Free Kids issued a joint statement indicating support for including ENDS in smoke-free laws (while specifically defining e-cigarettes as different than tobacco products), and further stating that there is no scientific evidence that ENDS help smokers quit.<sup>5</sup>

An additional health concern regarding the use of ENDS is their potential for intentional abuse by modifying cartridges to accept liquid or wax forms of illicit narcotics, such as THC (the active ingredient in marijuana). A variety of instructional websites and videos exist on the internet describing methods to accomplish this. When so modified, ENDS provide an inconspicuous way to consume such narcotics in public places or indoors. However, while it is *possible* to use the devices in this manner, it is unclear how widespread this practice is.

### **Secondhand Health Effects of ENDS:**

ENDS typically produce a visible vapor by passing small quantities of propylene glycol across a heating element. Propylene glycol is typically used in theatrical smoke or fog machines. A 2014 meta-study of secondhand effects of ENDS indicated that glycol and glycerol vapor are upper respiratory irritants, and that repeated long-term inhalation of these compounds may have different effects than those observed in studies of intermittent exposure to the glycol used in fog machines.<sup>6</sup>

ENDS contain far greater concentrations of nicotine than conventional cigarettes, with nicotine metered out over a long period of use. Nicotine can be absorbed through skin,

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<sup>2</sup> Westenberger, B.J. May 4, 2009. Evaluation of e-cigarettes (memo). Food and Drug Administration. <http://www.fda.gov/downloads/drugs/scienceresearch/ucm173250.pdf> Accessed May 15 2015.

<sup>3</sup> Cobb, N. et al. December 2010. Novel Nicotine Delivery Systems and Public Health: The Rise of the "E-Cigarette." *American Journal of Public Health*. 100(12), 2340-2342.

<sup>4</sup> Callahan-Lyon, P. 2014. Electronic Cigarettes: Human Health Effects. *Tobacco Control*. [http://tobaccocontrol.bmj.com/content/23/suppl\\_2/ii36.full.pdf+html](http://tobaccocontrol.bmj.com/content/23/suppl_2/ii36.full.pdf+html)

<sup>5</sup> American Cancer Society Cancer Action Network, et al., April 9, 2010. *Policy Guidance Document Regarding E-Cigarettes*. [https://www.heart.org/idc/groups/heart-public/@wcm/@adv/documents/downloadable/ucm\\_315097.pdf](https://www.heart.org/idc/groups/heart-public/@wcm/@adv/documents/downloadable/ucm_315097.pdf) Accessed May 15, 2015.

<sup>6</sup> Callahan-Lyon, P. 2014. Electronic Cigarettes: Human Health Effects. *Tobacco Control*. [http://tobaccocontrol.bmj.com/content/23/suppl\\_2/ii36.full.pdf+html](http://tobaccocontrol.bmj.com/content/23/suppl_2/ii36.full.pdf+html)

respiratory tracts, mucus membranes, and via ingestion, and can be toxic in concentrated doses. Accidental exposure or intentional misuse of the quantities of nicotine found in ENDS cartridges can cause serious nicotine reactions. This differs from cigarettes or chewing tobacco, where nicotine poisoning is rarer due to the involuntary vomiting reflex caused when tobacco is ingested.<sup>7</sup> It is also possible for exhaled nicotine aerosol to remain on surfaces for weeks or months, where the nicotine can be absorbed into others indirectly by touch or inhalation.<sup>8</sup> However, studies regarding this effect are limited.

Direct toxic over-exposure to the nicotine in ENDS typically only occurs when a cartridge has broken or when it is tampered with by children. U.S. poison centers began tracking statistics on ENDS exposures in September 2010. A study of calls between September 2010 and February 2014 indicated that calls steadily rose over that period to 215 calls per month in February 2014.<sup>9</sup> Overall, 57.8% of calls related to ENDS exposure resulted in an adverse health effect after exposure, versus 36.0% for calls related to cigarette exposures. Vomiting, nausea, and eye irritation were the most common reported adverse health effects as a result of exposure to ENDS. Intravenous injection of nicotine liquid resulted in one reported suicide death during this time period. While 94.9% of calls related to cigarette exposure were for individuals aged 0-5 years old, 51.1% of calls related to ENDS exposure were for persons in that same age bracket.

### **Other Considerations:**

The primary public health argument in support of ENDS use appears to be the principle of harm reduction. That is, using ENDS—assuming that any negative health effects ENDS have are either non-existent or at least less harmful than cigarettes—is a better option for people who would otherwise use traditional cigarettes to satisfy nicotine cravings. Through this type of use, ENDS can serve as smoking cessation aids.<sup>10</sup> However, this type of use—like other facets of ENDS—has yet to be fully evaluated and remains the subject of considerable debate in the public health community. It is unclear whether ENDS can provide this benefit as effectively as nicotine gum or patches, which have been studied for longer periods of time by the FDA.

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<sup>7</sup> Callahan-Lyon, P. 2014. Electronic Cigarettes: Human Health Effects. *Tobacco Control*.  
[http://tobaccocontrol.bmj.com/content/23/suppl\\_2/ii36.full.pdf+html](http://tobaccocontrol.bmj.com/content/23/suppl_2/ii36.full.pdf+html)

<sup>8</sup> Ibid.

<sup>9</sup> Chatham-Stephens, K., et al. April 4, 2014. Notes from the Field: Calls to Poison Centers for Exposures to Electronic Cigarettes – United States, September 2010-February 2014. Centers for Disease Control and Prevention. *Morbidity and Mortality Weekly Report*.  
<http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6313a4.htm> 63(13);292-293.

<sup>10</sup> Fairchild, A., et al. January 23, 2014. The Renormalization of Smoking? E-Cigarettes and the Tobacco “Endgame.” *The New England Journal of Medicine*. 293-295.

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ORDINANCE NO. \_\_\_\_\_

**ORDINANCE AMENDING TITLE 6, ENTITLED "PUBLIC HEALTH AND SAFETY," CHAPTER 10, ENTITLED "SMOKE FREE PLACES," TO PROHIBIT SMOKING ELECTRONIC CIGARETTES IN AREAS WHERE IT IS ILLEGAL TO SMOKE TOBACCO.**

WHEREAS, Chapter 142D of the Iowa Code, the Iowa Smokefree Air Act, prohibits smoking tobacco products in certain public spaces, places of employment and outdoor areas, including enclosed City buildings and vehicles operated by the City, the public grounds immediately adjacent to City buildings and bus shelters; and,

WHEREAS, the Smokefree Air Act expressly authorizes a person having custody or control of property to declare property that is otherwise exempt under the Smokefree Air Act to be a non-smoking place; and,

WHEREAS, in Chapter 10 of Title 6, "Public Health and Safety", the City has declared additional areas to be smoke free places including the municipal parking ramps, airport, City Plaza except for alleys and certain areas of Iowa City parks, and,

WHEREAS, electronic cigarettes are not covered by the Iowa Smokefree Air Act; and,

WHEREAS, in 2014 the Iowa legislature adopted HF 2109, which, among other things, amended Chapter 453A of the Iowa Code by requiring retailers of "alternative nicotine products" or "vapor products" (which includes electronic cigarettes) to obtain a tobacco permit, prohibits the sale of these products to persons under the age of 18 and the possession or purchase of these products by persons under the age of 18 and limits the places where these products can be given away; and,

WHEREAS, the Johnson County Department of Public Health made a presentation about e-cigarettes to the City Council on September 2, 2014; and,

WHEREAS, said presentation demonstrated that e-cigarettes contain varying amounts of nicotine and volatile organic compounds that are not healthy for human inhalation, that marketing tactics show an attempt to lure youth, that there is no evidence that being exposed to the vapor is safe, that the three largest tobacco companies are in the business of marketing e-cigarettes, that use of e-cigarettes among middle and high school students has more than doubled, and that e-cigarettes threaten to undo decades of public health work in tobacco control; and,

WHEREAS, Douglas Beardsley, the Director of Johnson County Public Health, submitted a memorandum to City Council dated May 22, 2015 advocating for making the use of e-cigarettes illegal in all areas where it is illegal to smoke tobacco products and highlighting a 2014 Iowa Youth Survey showing that a higher percentage (7%) of 11<sup>th</sup> graders in Johnson County used an e-cigarette within the last 30 days than a tobacco product (4%); and,

WHEREAS, a number of cities throughout the United States are prohibiting the use of e-cigarettes in places where traditional cigarette use is prohibited; and,

WHEREAS, the use of electronic smoking devices in smoke free locations threatens to undermine compliance with smoking regulations and reverse the progress that has been made in establishing a social norm that smoking is not permitted in public places and places of employment; and,

WHEREAS, the City Council finds that the use of e-cigarettes presents a serious and unknown public health threat and that in the interests of protecting the health of the public and providing a healthy work-place environment for its employees the City of Iowa City should prohibit the use of electronic cigarettes in all areas where it is illegal to smoke tobacco products.

NOW, THEREFORE, BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF CITY, IOWA:

**SECTION I. AMENDMENTS.**

1. Title 6, entitled "Public Health and Safety," Chapter 10, entitled "Smoke Free Places," Section 2, entitled "Penalty," is renumbered to Section 3.

2. Title 6, entitled "Public Health and Safety," Chapter 10, entitled "Smoke Free Places," is amended by adding the following new Section 2, entitled "Electronic Cigarettes":

It is illegal to use an electronic cigarette in any smoke free place listed in Section 1 of this chapter or in any place where Chapter 142D of the Iowa Code prohibits smoking a tobacco product. Electronic cigarette means vapor product as defined in Section 453A.1 of the Code of Iowa.

**SECTION II. REPEALER.** All ordinances and parts of ordinances in conflict with the provision of this Ordinance are hereby repealed.

SECTION III. SEVERABILITY. If any section, provision or part of the Ordinance shall be adjudged to be invalid or unconstitutional, such adjudication shall not affect the validity of the Ordinance as a whole or any section, provision or part thereof not adjudged invalid or unconstitutional.

SECTION IV. EFFECTIVE DATE. This Ordinance shall be in effect after its final passage, approval and publication, as provided by law.

Passed and approved this \_\_\_\_\_ day of \_\_\_\_\_, 2015.

\_\_\_\_\_  
MAYOR

ATTEST: \_\_\_\_\_  
CITY CLERK

Approved by  
 6-10-15  
\_\_\_\_\_  
City Attorney's Office

# Chapter 10

## SMOKE FREE PLACES

### 6-10-1: SMOKE FREE PLACES ITEMIZED:

It is illegal to smoke in a smoke free place. Pursuant to HF 2212, section 5, to be codified at section 142D.5 of the Iowa Code, the city declares the following areas to be smoke free places:

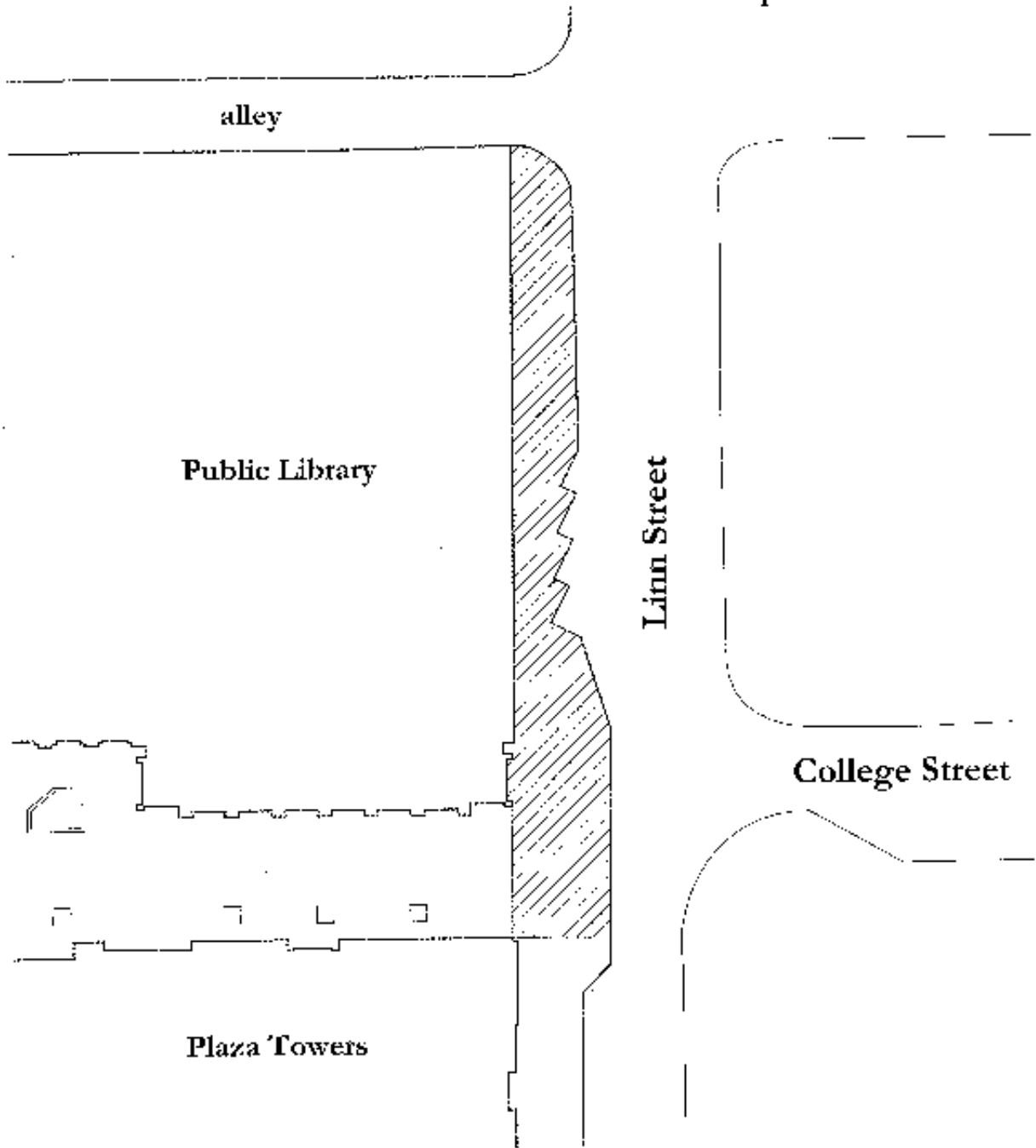
- A. Iowa City Municipal Airport. (Ord. 08-4314, 9-9-2008)
- B. Municipal parking ramps except in privately owned vehicles that are not located in the Chauncey Swan Parking Ramp during the farmers' market as provided in this section.
- C. City Plaza except the public alleys. "City Plaza" is defined in section [10-5-2](#) of this code.
- D. The area between the public library and Linn Street including the sidewalk, as illustrated on the diagram below, and the area within ten feet (10') of a sidewalk cafe that is not in City Plaza. "Sidewalk cafe" is defined in section [10-3-1](#) of this code. (Ord. 10-4393, 6-1-2010)
- E. Napoleon Park except the parking lot and the Iowa River Corridor Trail.
- F. Baseball/softball complex at Mercer Park not including the parking lots.
- G. Iowa City Kickers Soccer Park including the parking lots.
- H. The area within fifty feet (50') of the City Park pool building and the fence that encompasses the City Park pool and the area inside the fence.
- I. Riverside Festival stage/seating area and the area within fifty feet (50') of Riverside Festival stage/seating area.


- J. Bobby Oldis baseball fields in lower City Park including the bleachers, sidewalk, and all other areas between the fields.
- K. The area within fifty feet (50') of the amusement rides in lower City Park.
- L. Skateboard Park.
- M. Tennis courts in all city parks.
- N. Dog parks. (Ord. 08-4314, 9-9-2008)
- O. Farmers' market beginning thirty (30) minutes prior to the opening of the farmers' market. "Farmers' market" is defined in section [10-11-1](#) of this code.
- P. The area within fifty feet (50') of any outdoor stage or location where musicians are performing during any outdoor entertainment venues where members of the general public assemble to witness entertainment events, such as, but not limited to, Arts Fest and Jazz Fest. (Ord. 10-4393, 6-1-2010)
- Q. The streets and adjacent sidewalks along the parade route of the University Of Iowa homecoming parade from five o'clock (5:00) P.M. to eight o'clock (8:00) P.M. on Friday evening of the homecoming parade. (Ord. 08-4314, 9-9-2008)
- R. Black Hawk Mini Park. (Ord. 13-4563, 12-3-2013)



# Nonsmoking Places

April 2010



 Designated nonsmoking area



(Ord. 10-4393, 6-1-2010)

### 6-10-2: VIOLATION; PENALTY:

Violation of this chapter shall be a simple misdemeanor punishable by a fine of fifty dollars (\$50.00). (Ord. 10-4410, 10-26-2010)