

## Fires and Explosions<sup>10</sup>

There is a growing concern of fires and explosions related to e-cigarette use. Numerous cases have been reported of electronic cigarette devices exploding and starting fires. Fires and explosions have been reported while the electronic devices were charging, being transported, or in use. E-cigarettes contain a lithium battery whose contents are either flammable or combustible. When the battery overheats, the contents heat to its boiling point and pressure builds until the battery seal ruptures. Pressure escapes through the ruptured seal and the battery contents ignite causing a fire/explosion. Overheating of a battery is caused by a number of conditions: overcharging, external heat source, a short-circuit in the battery, or punctures to the product.



Information Source: U.S. Fire Administration [usfa.fema.gov](http://usfa.fema.gov)

## What Can You do to Help Decrease The Burden of Tobacco?

- Join our coalition
- Visit our website [www.tobaccofreelivingfdl.com](http://www.tobaccofreelivingfdl.com)
- Schedule a presentation

Contact **Sandy Bernier**, Tobacco Control Program Coordinator.

Phone:(920) 906-5537

Email: [sandy.bernier@fdlco.wi.gov](mailto:sandy.bernier@fdlco.wi.gov)

**For Updates and Newsletters Visit Our Website:**

[www.tobaccofreelivingfdl.com](http://www.tobaccofreelivingfdl.com)

## Sources

### What Is An Electronic Cigarette?

<sup>1</sup>[www.fda.gov/newsevents/publichealthfocus/ucm172906.htm](http://www.fda.gov/newsevents/publichealthfocus/ucm172906.htm)

### E-Cigarettes by Other Names

<sup>2</sup> [www.tobwis.org](http://www.tobwis.org). (2014). An Introduction to E-Cigarettes. Retrieved from <http://tobwis.org/e-cigarette-toolkit>

### Liquid Nicotine

<sup>3</sup>Nine E-Juice Flavors That Sound Appealing to Kids, (2014). Tobacco Free Kids. Retrieved from [http://www.tobaccofreekids.org/tobacco\\_unfiltered/post/2014\\_06\\_11\\_ecigarettes](http://www.tobaccofreekids.org/tobacco_unfiltered/post/2014_06_11_ecigarettes)

### Poison Control Calls Increase

<sup>4</sup>*American Association of Poison Control Centers*

### Youth

<sup>5</sup>*Wisconsin Youth Tobacco Survey*

<sup>6</sup>*2014-2016 National Youth Tobacco Survey*

### Regulations

<sup>7</sup>*FDA Takes Significant Steps to Protect Americans From Dangers of Tobacco Through New Regulations, May 5, 2016.*

### Constituents of Secondhand Aerosol

<sup>8</sup> *CDC Office on Smoking and Health*

### Diacetyl

<sup>9</sup> *The Journal Sentinel, Watch Dog Report by Raquel Rutledge*

### Fire and Explosions

<sup>10</sup>*Electronic Cigarette Fires and Explosions, U.S. Fire Administration, October 2014.*

### Picture Sources

*Front Page: NY Times*

*E-Cigarette: legacyforhealth.org and NY Times*

*E-Cigarettes by Other Names: Tobwis E-Cigarette Powerpoint*

*Liquid Nicotine Flavors: Central Vapes*

*Fires and Explosions: U.S. Fire Administration [usfa.fema.gov](http://usfa.fema.gov)*

## FIVE COUNTIES FOR TOBACCO-FREE LIVING

Fond du Lac County

## Electronic Cigarettes Reasons For Concern

e-Cigarettes



**Njoy**  
Traditional Flavor



**Blu**  
Regular

Flavors come in a variety of "smoke juices"

e-Hookahs



**Imperial Hookah**  
Strawberry Margarita

Label states nicotine content



**King eHookah**  
Grape Apple

Label says "This product contains nicotine" and later "no nicotine"



**Logic Hookah**  
Blueberry

Label boasts "kissable breath" and "satisfies nicotine cravings"



**Excellent E-cig**  
Melon

No indication of nicotine contents but warning label states, "Nicotine is highly addictive"

Vape Pens



## Variety of E-Cigarettes

[www.tobaccofreelivingfdl.com](http://www.tobaccofreelivingfdl.com)

### Five Counties For Tobacco-Free Living

(Fond du Lac, Green Lake, Marquette, Washington, and Waushara Counties)

**Sandy Bernier BSW CSW**

Tobacco Control Program Coordinator

160 South Macy Street

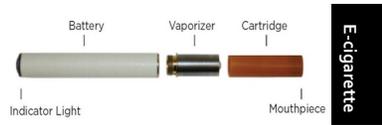
Phone: 920-906-5537

Fax: 920-929-3102

[sandy.bernier@fdlco.wi.gov](mailto:sandy.bernier@fdlco.wi.gov)

# WHAT'S THE CONCERN?

## What Is An Electronic Cigarette?<sup>1</sup>



Electronic cigarettes, also known

as e-cigarettes, are battery-operated products designed to deliver nicotine, flavor and other chemicals. They turn chemicals, including highly addictive nicotine, into an aerosol that is inhaled by the user. Typically, they are composed of a rechargeable, battery-operated heating element, a replaceable cartridge that may contain nicotine or other chemicals, and an atomizer that converts the contents of the cartridge into a vapor when heated. These products are often made to look like cigarettes, cigars and pipes.

## E-cigarettes By Other Names<sup>2</sup>



Many young people say they have not and will not use an e-cigarette, but do say they have tried hookah pens, e-hookahs or vape pens.

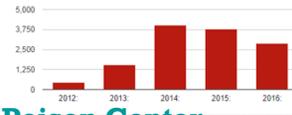
## Liquid Nicotine Comes In Kid Friendly Flavors<sup>3</sup>

E-cigarettes are sold in an assortment of sweet, kid-friendly flavors



## Poison Control Calls Increase<sup>4</sup>

Calls to poison control centers involving exposures to e-cigarettes and liquid nicotine increased to 2,886 in 2016 from 1,543 in 2013.



## Wisconsin Poison Center

Phone number: 1-800-222-1222

Website: [www.aapcc.org](http://www.aapcc.org)

## Youth<sup>5,6</sup>

E-cigarettes appeal to youth because of their high-tech design, easy access online and at mall kiosks, and the wide array of cartridge flavors. The 2016 Wisconsin Youth Tobacco Survey shows 13.3% of Wisconsin high school students currently use e-cigarettes. Findings from the 2016 National Youth Tobacco Survey show that current e-cigarette use among high school students increased from 7.9% in 2014 to 13.3% in 2016, exceeding the use of regular cigarettes.

## Regulations<sup>7</sup>

Effective August 8th, 2016 the FDA will extend authority over previously unregulated tobacco products including: little cigars, cigars, e-cigarettes, hookah, pipe tobacco, and other tobacco products. Prohibition on free sampling will occur with the exception of smokeless tobacco which is allowed in adult-only facilities. The rule does not include flavor restrictions nor require newly deemed products to be located behind the counter. This means tobacco products other than cigarettes and smokeless tobacco can be located next to youth friendly items such as chips, cereal, and candy. Applications to market newly-regulated non-combustible products, such as electronic nicotine delivery systems (ENDS) or e-cigarettes, must be submitted to the FDA by August 8, 2022. The FDA intends to develop product standards to protect against known public health risks such as electronic nicotine delivery systems (ENDS) battery issues.

## Not An Approved Cessation Device

Despite manufacturers' claims, not one of these products has been approved by the FDA as a cessation device. The CDC states that counseling and medication are both effective for treating tobacco dependence, and using them together is more effective than using either one alone.

## Constituents of Secondhand Aerosol<sup>8</sup>

- Secondhand e-cigarette aerosol (called vapor by the industry) contains nicotine, ultrafine particles and low levels of toxins that are known to cause cancer.
- There are metals in e-cigarette aerosol, including chromium, nickel, and tin nanoparticles.
- E-cigarettes contain and emit propylene glycol. Even though propylene glycol is FDA approved for use in some products, the inhalation of vaporized nicotine in propylene glycol is not. Some studies show that heating propylene glycol changes its chemical composition, producing small amounts of propylene oxide, a known carcinogen.

## Diacetyl<sup>9</sup>

Diacetyl is approved by the FDA for consumption in trace amounts for flavoring in coffee, beer, and butter. The FDA has not approved diacetyl to be inhaled; inhalation can be toxic. When Diacetyl is inhaled it can cause respiratory disease. In a number of studies done by scientists, including those from the National Institute of Occupational Health and Safety; inhaling the chemical can quickly destroy the lungs.