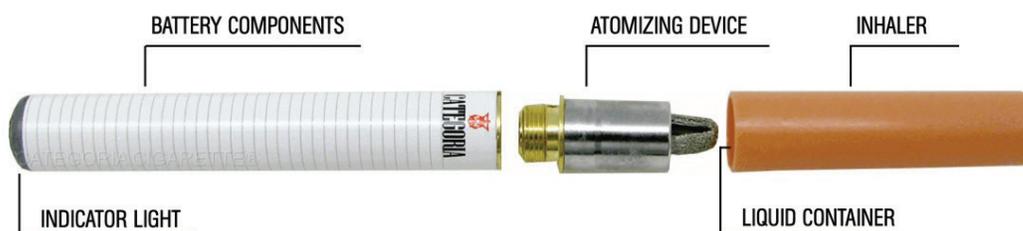




# E-cigarettes

## WHAT ARE E-CIGARETTES?

Electronic cigarettes, also called electronic nicotine delivery systems (ENDS), are designed to mimic the size, shape, and use of a conventional cigarette. A battery powers a heater, or atomizer, that vaporizes a solution usually containing nicotine and flavor additives suspended in propylene glycol or glycerin. Many e-cigarettes are rechargeable and users purchase replacement cartridges or refill vials.



## KEY POINTS:

- More than 400 e-cigarette brands are available for sale in the U.S.<sup>1</sup>
- There have been no national prevalence studies. The Tobacco Vapor Electronic Cigarette Association claims there are 4 million users in the U.S. and an estimated \$1 billion in sales annually.<sup>2</sup>
- E-cigarette awareness among U.S. adults increased from 16.9% in 2009 to 32.2% in 2010 and ever use quadrupled.<sup>3</sup>
- The U.S. Food and Drug Administration (FDA) has the authority to regulate e-cigarettes as tobacco products, but has not yet done so.<sup>1</sup>
- E-cigarettes may undermine current prevention and cessation efforts by normalizing the action of ‘smoking’ or ‘vaping’, triggering relapse and encouraging initiation.
- FDA has not approved e-cigarettes as effective cessation devices. There are other proven safe and effective methods to quit smoking.<sup>1</sup>

## WHAT ARE THE RISKS?

There are limited independent published studies on the safety and risks of e-cigarettes. Some studies have indicated that:

- Quality control and labeling of nicotine levels is inaccurate, including detectable nicotine levels in “no nicotine” labeled e-cigarettes.<sup>1</sup>
- Exhaled vapor is a mixture of water, propylene glycol and low levels of nicotine, tobacco specific nitrosamines, and other impurities.<sup>4</sup> In one study, vapor did slightly increase particulate matter levels in indoor air.<sup>5</sup>
- One study showed increased short-term airway resistance after use of an e-cigarette.<sup>6</sup>
- Some e-cigarette users refill their own cartridges. Exposure to dangerous concentrations of nicotine through skin contact, inhalation, or ingestion is a possible risk.<sup>7</sup>



# WHY QUIT? SWITCH TO BLU

- Have the Freedom to Smoke Anywhere
- No Tobacco, No Ash, No Smell
- All Flavors Made in the U.S.A.



## Access and Marketing

page 2 of 2

- E-cigarette marketing emphasizes:
  - Variety of attractive flavors
  - Odorless, smokeless
  - Social acceptance
  - Cost savings
  - Technological innovation
  - Freedom to use anywhere <sup>8</sup>
- E-cigarettes are widely marketed on the internet, in television commercials, in magazine advertisements, and with celebrity endorsements.
- Prices range from around \$7.99 to \$100.
- Not covered by health warning requirements and TV/radio commercial bans of cigarettes, cigars, and smokeless tobacco products.<sup>9</sup>
- Disposable e-cigarettes, rechargeable kits, and refill cartridges are widely available for purchase on the internet, at mall kiosks, in convenience stores, and in some retail stores and tobacco shops.
- U.S. tobacco companies are developing e-cigarette brands (RJ Reynolds' VUSE and Altria to release new product in late 2013) or purchasing e-cigarette brands (Lorillard's acquisition of Blu in 2012).<sup>10</sup>

## OPPORTUNITIES FOR ACTION <sup>11</sup>

- **Expand existing smoke-free air laws to include e-cigarettes.** The U.S. Department of Transportation, Air Force, State of New Jersey, and King County of Washington State are among jurisdictions that have enacted rules restricting public use of e-cigarettes.
- **Include e-cigarettes in youth access restrictions.** The States of California, New York, and others have banned the sale of e-cigarettes to minors. Other options to limit access are e-cigarette provisions in retail licenses and the enactment of full sales bans, as in the case of Australia, China, and Brazil.
- **Regulate marketing of e-cigarettes.** Local governments have an interest in protecting consumers from false and misleading claims about products for sale, including e-cigarettes. Enforcing existing advertising protections may reduce marketing exposure.

1 U.S. Food and Drug Administration. (n.d.). Electronic cigarettes. Accessed November 14, 2012, from [www.fda.gov/newsevents/publichealthfocus/ucm172906.htm](http://www.fda.gov/newsevents/publichealthfocus/ucm172906.htm).

2 McGann, M.A. (March 2013). E-cigarettes ignite a debate over the safety of liquid nicotine. Inside Jersey. Accessed June 5, 2013, from [http://www.nj.com/inside-jersey/index.ssf/special\\_reports/e-cigarettes\\_ignite\\_a\\_debate\\_over\\_the\\_safety\\_of\\_liquid\\_nicotine.html](http://www.nj.com/inside-jersey/index.ssf/special_reports/e-cigarettes_ignite_a_debate_over_the_safety_of_liquid_nicotine.html).

3 Regan, AK, Promoff, G, et. al. (2013). Electronic nicotine delivery systems: Adult use and awareness of the 'e-cigarette' in the USA. Tobacco Control Journal, 22(1), 19-23.

4 U.S. Food and Drug Administration. (2009). Summary of results: Laboratory analysis of electronic cigarettes conducted by FDA. Accessed November 14, 2012, from [www.fda.gov/newsevents/publichealthfocus/ucm173146.htm](http://www.fda.gov/newsevents/publichealthfocus/ucm173146.htm).

5 Pellegrino, RM, Tinghino, B, et. al. (2012). Electronic cigarettes: An evaluation of exposure to chemicals and fine particulate matter (PM). Annali di Igiene, 24(4), 279-88.

6 Vardavas, CI, Anagnostopoulos, N, et. al. (2012). Short-term pulmonary effects of using an electronic cigarette: Impact on respiratory flow resistance, impedance, and exhaled nitric oxide. CHEST, 141(6), 1400-1406.

7 Yamin, CK, Bitton, A, et. al. (2010). E-cigarettes: A rapidly growing internet phenomenon. Ann Intern Med, 153, 607-609.

8 Blu Cigs. Accessed November 14, 2012, from [www.blucigs.com](http://www.blucigs.com).

9 Centers for Disease Control and Prevention. (n.d.). Selected actions of the U.S. government regarding the regulation of tobacco sales, marketing, and use. Accessed November 14, 2012, from [www.cdc.gov/tobacco/data\\_statistics/by\\_topic/policy/legislation/index.htm](http://www.cdc.gov/tobacco/data_statistics/by_topic/policy/legislation/index.htm).

10 Felberbaum, M. (April 25, 2013). Marlboro maker Altria to jump into e-cigarettes. CNSnews.com. Accessed June 5, 2013, from <http://cnsnews.com/news/article/marlboro-maker-altria-jump-e-cigarettes>.

11 ChangeLab Solutions. (2012). Electronic cigarettes: How they are – and could be – regulated. Accessed November 14, 2012, from [http://changelabsolutions.org/sites/default/files/E-cigarette\\_FactShT\\_FINAL\\_\(CLS\\_20120530\)\\_October21\\_2011\\_0.pdf](http://changelabsolutions.org/sites/default/files/E-cigarette_FactShT_FINAL_(CLS_20120530)_October21_2011_0.pdf).