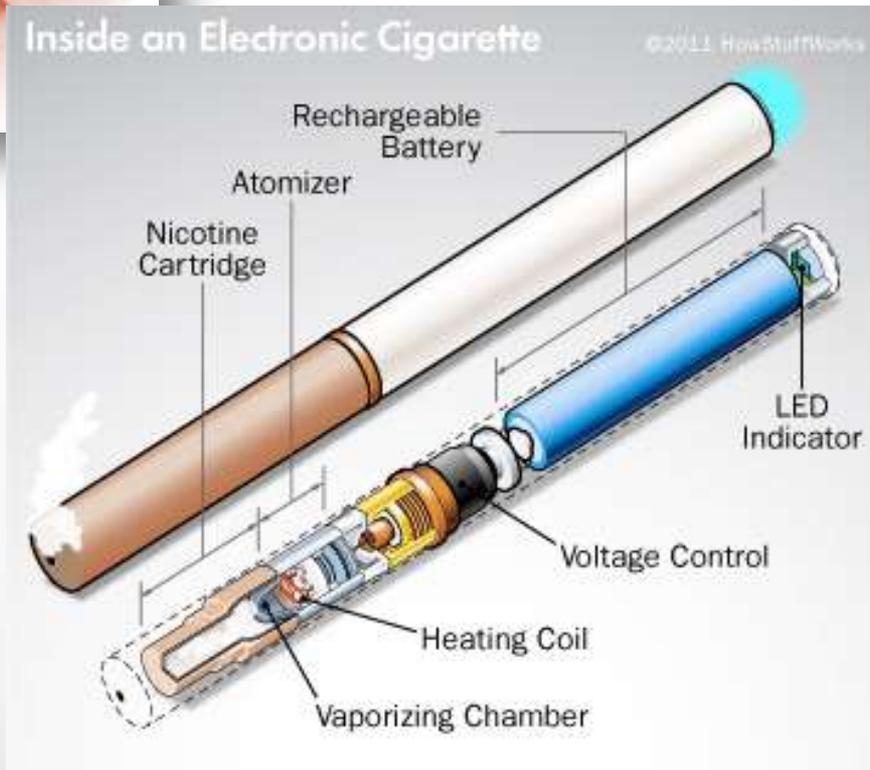
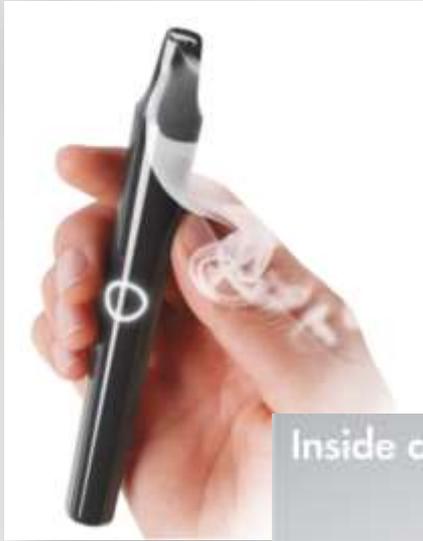


# What You Should Know About E-Cigarettes



# What is an Electronic Cigarette?



- Allows user to inhale vapor containing nicotine and/or other substances.
- Disposable or rechargeable and/or refillable.
- Contain a cartridge filled with liquid nicotine, flavorings and glycerin or propylene glycol.
- When coil heats, it converts the contents of the cartridge into vapor.

# Electronic cigarettes (e-cigarettes) come in many forms and are often not called e-cigarettes by users

Product	Description	Some Brands
<b>Disposable e-cigarette</b> 	Cigarette-shaped device consisting of a battery and a cartridge containing an atomizer to heat a solution (with or without nicotine). Not rechargeable or refillable and is intended to be discarded after product stops producing vapor. Sometimes called an e-hookah.	NJOY OneJoy, Aer Disposable, Flavorvapes
<b>Rechargeable e-cigarette</b> 	Cigarette-shaped device consisting of a battery that connects to an atomizer used to heat a solution typically containing nicotine. Often contains an element that regulates puff duration and /or how many puffs may be taken consecutively.	Blu, GreenSmoke, EonSmoke
<b>Pen-style, medium-sized rechargeable e-cigarette</b> 	Larger than a cigarette, often with a higher capacity battery, may contain a prefilled cartridge or a refillable cartridge (often called a clearomizer). These devices often come with a manual switch allowing to regulate length and frequency of puffs.	Vapor King Storm, Totally Wicked Tomado
<b>Tank-style, large-sized rechargeable e-cigarette</b> 	Much larger than a cigarette with a higher capacity battery and typically contains a large, refillable cartridge. Often contains manual switches and a battery casing for customizing battery capacity. Can be easily modified.	Volcano Lavatube

Grana R A et al. Circulation. 2014;129:e490-e492

# No conclusive evidence that e-cig users are more likely to quit

- Norm reversal : normalize smoking, undo smokefree air legislation
- Secondhand vapor exposure: could expose users and bystanders alike to unidentified dangers, other carcinogens
- Long-term use: still contain nicotine to sustain addiction
- Youth initiation: become a gateway for teens who might subsequently experiment with tobacco products and other drugs
- Dual use or addiction exchange rather than cessation
- Could strengthen addiction if a person ends up using both
- Could entice someone to use them who quit smoking
- “Safer ≠ Safe”

# Contents vary widely and may not match the ingredients or the amounts listed on the label

- Most e-cigarettes made in China and sold under more than 300 brands
- Lack of quality of the devices
- Amount of nicotine varies: can range from 0mg/ml – 48mg/ml
  - Most contain 5mg, 10mg, or 20mg in each cartridge
  - Each cartridge produces 250-400 puffs, equivalent to 1-2 packs of cigarettes
- Complaints from the public filed with the FDA cited trouble breathing, headache, cough, dizziness, sore throat, nose bleeds, chest pain or other cardiovascular problems, and allergic reactions such as itchiness and swelling of the lips.

# No regulations on manufacture and sale to protect consumers

A new product with the same tobacco industry and the same industry tactics- the “Big Three” have entered the game

- Altria
- Reynolds American
- Lorillard

# Vapor is not water

- Researchers have found that vapor released higher concentrations of some disease causing elements also produced by cigarettes
- Fewer toxins and none of the tar but many of the elements in e-cigarette vapor are know to cause respiratory illness and disease
- Contains nicotine, formaldehyde, metal & silicate particles, propylene glycol
- Research findings suggest that both regular cigarette smoke and e-cigarette vapor make drug-resistant bacteria more virulent

# High nicotine concentrates can be deadly

- Calls to poison control centers up to 215 in February 2014, mostly young children
- Higher voltage types release more formaldehyde
- Poison Control Center reported that they also received calls because pets had been exposed to e-cigarettes.

# E-cigarette vapor pollutes the air

*“If you are around somebody who is using e-cigarettes, you are breathing an aerosol of exhaled nicotine, ultra-fine particles, volatile organic compounds, and other toxins”*

Dr. Stanton Glantz, Director for the Center for Tobacco Control Research and Education at the University of California, San Francisco.



# Appeal to youth, even non-smokers

- Flavors such as gummy bear, fruit loop and cotton candy
- Thin Mint, Tootsie Roll and Cinnamon Toast Crunch: General Mills Inc., the Girl Scouts of the USA and Tootsie Roll Industries Inc. are among several companies that have sent cease-and-desist letters to makers of the liquid nicotine demanding they stop using the brands and may take further legal action if necessary
- Advertising found in music magazines and pop-culture tabloids
- No age restrictions to purchase them

# E-cigarette Risks

- Explosions
- Fires
- Poisoning
- Enables discreet use of other drugs (heroin, marijuana, crack cocaine)
- Hazardous waste & litter

# Marketing Ploys Mimic 1960's

NEVER FORGET marketing of so called

“lite” and “low-tar”

cigarettes

- No Surgeon General's warning
- Advertised on TV (cigarettes banned since 1971)
- Ingredients not listed
- Promoted by celebrities: “glamorous”
- No federal regulations
- The “Wild, Wild West”: don't know what's in them



# Image examples of marketing claims to accompany “Smoking Revolution”. A Content Analysis of Electronic Cigarette Retail Websites

American Journal of Preventive Medicine

Rachel A. Grana, PhD, MPH, Pamela M. Ling, MD, MPH

Center for Tobacco Control Research and Education, Cardiovascular Research Institute

(Grana, Ling), and Division of General Internal Medicine, Department of Medicine (Ling),

University of California San Francisco, San Francisco, California

December, 2013

- Health related claim
- Cessation related claim
- Ability to smoke anywhere
- Ability to circumvent smoke-free policies
- Products do not expose others to secondhand smoke
- Cleaner than tobacco smoking
- Environmentally Friendly
- Cheaper
- Fire safe alternative
- Increased ability to socialize
- Increased social status
- Increased romantic involvement
- Modern, technologically advanced

# Early research shows lung effects similar to smokers

- Five minutes of use has lung effects similar to tobacco smoke
- Airways become inflamed after use

# Reasons why e-cigarettes are as dangerous as tobacco cigarettes

- “If they get another generation of kids more hooked on nicotine and more likely to smoke cigarettes, that’s more harm than good,” he said.
- “If they get smokers who would have quit to keep smoking instead of quitting, more harm than good.
- “If they get ex-smokers who have been off nicotine to go back on nicotine and then back to cigarettes, more harm than good.
- “If they get people who want to quit smoking and would have taken medicines to think e-cigarettes are going to help, but they don’t, more harm than good.
- “If they re-glamorize smoking, it’s more harm than good.”

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- People who use them can expose kids, teens and pregnant women to nicotine via secondhand smoke
- Enterprising smokers can put marijuana or hallucinogens in an e-cigarette “tank.”

**Dr. Tom Frieden**

**Director of the Centers for Disease Control and Prevention**



# Proposed Regulations Submit Comments

## Regulatory Framework

DEPARTMENT OF HEALTH AND HUMAN SERVICES  
Food and Drug Administration  
21 CFR Parts 1100, 1140, and 1143  
[Docket No. FDA-2014-N-0189]  
RIN 0910-AG38

Deeming Tobacco Products To Be Subject to the Federal Food, Drug, and Cosmetic Act, as Amended by the Family Smoking Prevention and Tobacco Control Act; Regulations on the Sale and Distribution of Tobacco Products and Required Warning Statements for Tobacco Products; Proposed Rule

Public Comments until July 9, 2014:

Federal eRulemaking Portal: <http://www.regulations.gov>

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## *If a patient asks a clinician about using the e-cigarette for quitting smoking...*

The patient may be signaling readiness to quit smoking

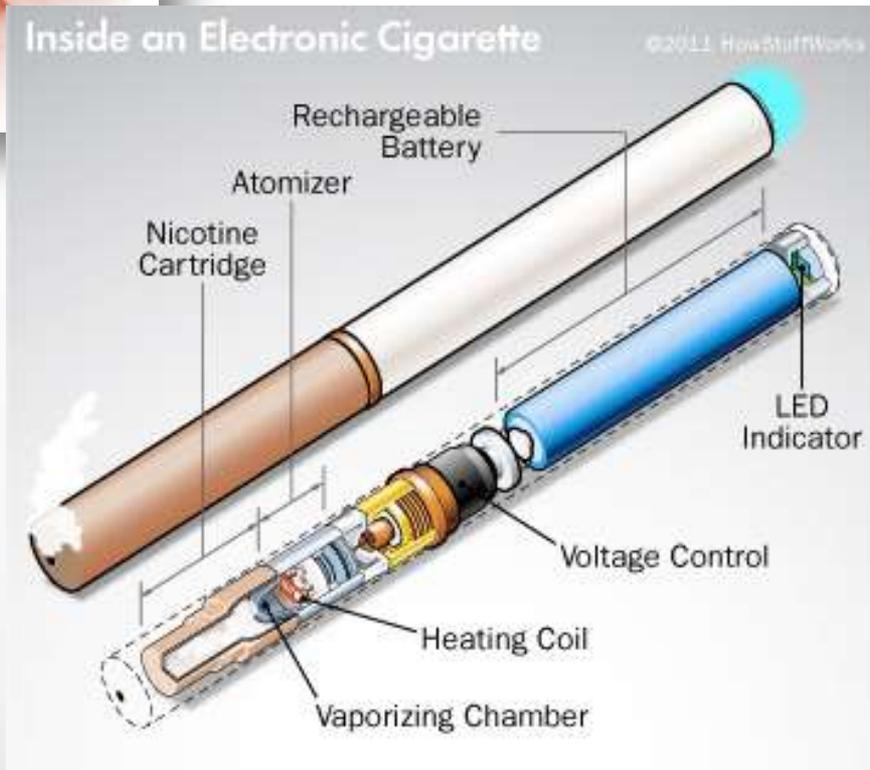
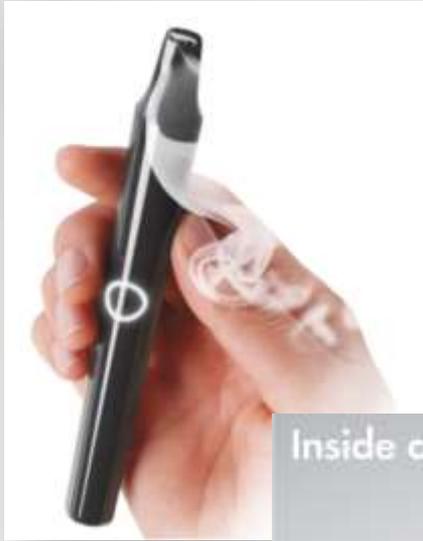
- Use the opportunity to learn about the patient's motivation to quit
- Discuss past experience with cessation
- Encourage and facilitate evidence-based treatment
- If already using e-cigarettes to quit smoking, support the quit attempt and encourage no cigarette use/smoking
  - Emphasize the lack of reduction in health risks from dual use
- Inform him or her that e-cigarettes are not approved by the US Food and Drug Administration for smoking cessation.
  - Limited research published to date has not proven that electronic cigarettes are effective smoking cessation aids
  - Inform patients that e-cigarettes are unregulated and that users cannot be sure what they are exposed to
  - Given the lack of knowledge about long-term risks and potential harms, patients should also be urged to set a quit date for their e-cigarette use



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