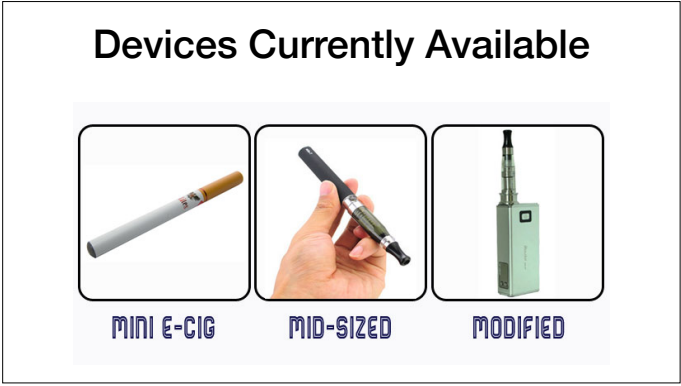
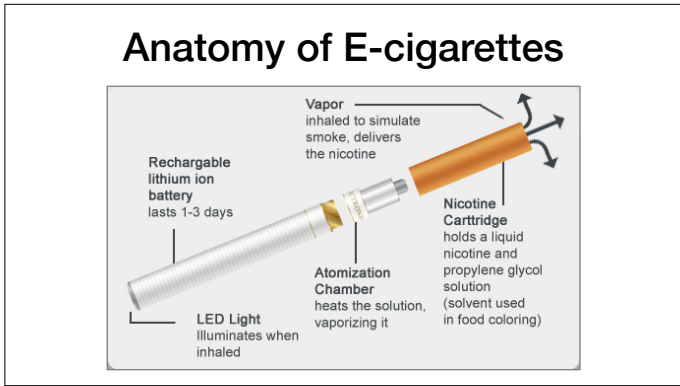




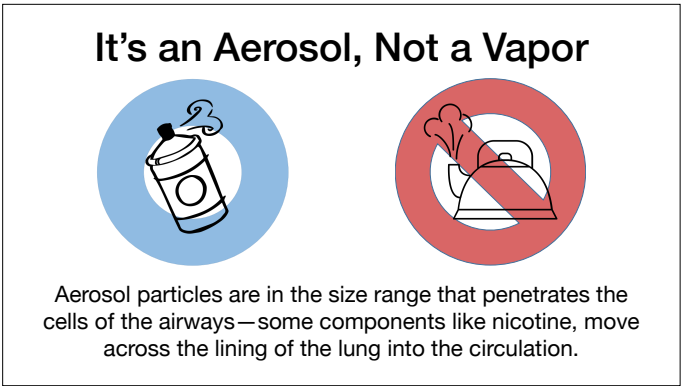
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“Harmless” Vapor?

AEROSOL COMPOSITION			
• Propylene glycol	• Chlorobenzene	• Benzofluoranthrene	• Cadmium
• Glycerol	• Chloroacetaldehyde	• Acrolein	• Silicon
• Flavorings (many)	• Propionaldehyde	• Silver	• Lead
• Nicotine	• Benzaldehyde	• Nickel	• Manganese
• NNN	• Valeric acid	• Tin	• Potassium
• NNK	• Hexanal	• Strontium	• Titanium
• NAB	• Fluorine	• Barium	• Zinc
• NAT	• Anthracene	• Aluminum	• Zirconium
• Ethylbenzene	• Pyrene	• Chromium	• Calcium
• Benzene	• Acenaphthylene	• Boron	• Iron
• Pm, pyrene	• Acenaphthene	• Copper	• Sulfur
• Toluene	• Fluoranthene	• Selenium	• Vanadium
• Acetaldehyde	• Benzo[a]anthracene	• Arsenic	• Cobalt
• Formaldehyde	• Chrysene	• Rhenium	
• Naphthalene	• Retene		
• Styrene	• Benzo[a]pyrene		
• Benzo[b]fluoranthene	• Indeno[1,2,3-cd]pyrene		

All of these compounds have been found in e-cigarette aerosols.

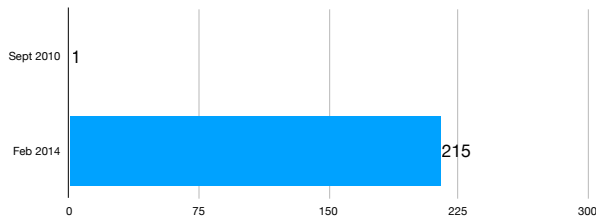
Compounds in yellow are from FDA 2012, Toxic and Potentially Harmful Substances - Established List

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- ### Key Aerosol Components
- **Aerosol vehicle**—mainly propylene glycol and some vegetable glycerin
 - **Nicotine**—delivered at varying concentrations and doses, depending on the device and its operation
 - **Flavorings**—a whole variety of flavorings are available. These are very attractive to young people.
 - **Known potential risks:**
 - Tobacco-specific nitrosamines
 - Metals
 - Formaldehyde
 - Acrolein

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Calls to Poison Centers



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Thirdhand Aerosol



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What Attracts and Sells

1. Celebrity spokespeople
2. TV personalities
3. Magazine ads of rugged men and glamorous women
4. Sports personalities
5. They know sex sells
6. Offering free samples
7. Sponsoring sports events, music festivals
8. Offering sweet flavors



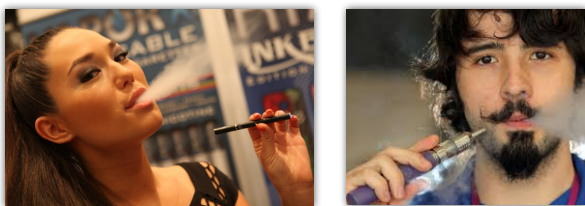
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Who is going to replace the old smokers?



10

Young People



11

Can Vaping Help Me Stop Smoking?

- The process of vaping is very similar to smoking—just a source of nicotine. May be just another strong cue!
- E-cigarettes can be a powerful gateway to the “real deal” (actual cigarettes, other addictions).
- Evidence suggests that smokers who use e-cigarettes are *less* likely to quit cigarettes.
- Patches combined with behavioral therapy have better long-term success and higher quit rates.

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