

**The following two blog posts (July 2013) are provided to help address questions about e-cigarettes:**

**1)** Professor Stanton Glantz from the Department of Medicine and Director of the Center for Tobacco Control Research and Education at UC San Francisco wrote a concise summary on 7/1/13 about a recent study on electronic cigarettes (e-cigarettes) from the German Cancer Research Center, Heidelberg. (click here for his blog post (<http://www.tobacco.ucsf.edu/excellent-summary-science-and-marketing-e-cigs-german-cancer-research-center-heidelberg>) and click here for the *Electronic Cigarettes-An Overview* report (<http://www.dkfz.de/en/presse/download/RS-Vol19-E-Cigarettes-EN.pdf>).

Professor Glantz writes:

Here is the summary of the report, *Electronic Cigarettes – An Overview*, issued a couple months ago:

Electronic cigarettes are novel products emerging on the market just a couple of years ago. Consequently, there are only few scientific studies on the health implications of using electronic cigarettes.

Based on current data, the following statements can be made:

#### **Product characteristics**

- E-cigarettes cannot be rated as safe at the present time.
- Consumers do not have reliable information on product quality.
- Electronic cigarettes have various technical flaws (leaking cartridges, accidental intake of nicotine when replacing cartridges, possibility of unintended overdose).
- Some manufacturers provide insufficient and partly wrong information about their liquids.

#### **Health effects**

- The liquids contain ingredients that on short-term use irritate airways and may lead to allergic reactions and which may be harmful to health when inhaled repeatedly over a prolonged period of time.
- The aerosol of some liquids contains harmful substances (formaldehyde, acetaldehyde, acrolein, diethylene glycol, nickel, chromium, lead).
- The functionality of electronic cigarettes can vary considerably (aerosol production, nicotine delivery into aerosols).
- Adverse health effects for third parties exposed cannot be excluded because the use of electronic cigarettes leads to emission of fine and ultrafine inhalable liquid particles, nicotine and cancer-causing substances into indoor air.

#### **Users of electronic cigarettes**

- Electronic cigarettes are used predominantly by smokers and smokers considering cessation as well as former smokers.
- Even though only few non-smokers use electronic cigarettes, the products may bring them closer to smoking conventional cigarettes.
- Electronic cigarettes are used as an alternative to cigarette smoking and as smoking cessation aids primarily because they are believed to be less harmful than regular cigarettes.

#### **Efficacy as cessation device**

- Electronic cigarettes – regardless of their nicotine content – can reduce the desire to smoke (craving) and withdrawal symptoms.
- Some smokers cut down smoking or quit smoking as a result of using e-cigarettes.
- The efficacy of e-cigarettes as an aid for sustained smoking cessation has not yet been proven.

### **Product regulation**

- We desperately need to know more on product quality, ingredients, possible health effects of e-cigarette use, and efficacy of e-cigarettes as cessation aid. Carefully planned studies by qualified and objective scientists are necessary.
- Electronic cigarettes should be regulated as medicinal products, regardless of their nicotine content.
- E-cigarettes should not be dispensed to children and youth.
- Non-smoker protection legislation should apply to e-cigarettes.

2) Scientific American guest blogger Laura Newman wrote an article on 7/22/13 titled “How Safe are Electronic Cigarettes? Not Everyone Agrees.” (click here for her blog entry (<http://blogs.scientificamerican.com/guest-blog/2013/07/22/how-safe-and-effective-electronic-cigarettes-really-are/> ) As part of her article, she posed questions to Professor Stanton Glantz, and a sample of the Q&A is shared below.

#### **Q (Newman): Where do the authors stand on harm reduction and addiction?**

A (Glantz): The articles reflect the polarization in the public health and tobacco control communities. The optimists - the harm reduction people (in this instance Hajek et al.)- essentially believe that electronic cigarettes are much less dangerous than traditional cigarettes and so their use should be encouraged. The pessimists (Cobb and Cobb) see electronic cigarettes as an addictive drug that, without regulation, are not going to market in a way that will disrupt the primary profit stream of cigarettes, and so could end up just keeping people smoking conventional cigarettes.

There's an assumption among the harm reduction people that if you could snap your fingers and get every smoker to switch to e-cigarettes, you'd be ahead. One problem is that you can't do that. While the industry uses social media and the internet to present e-cigarettes as a miracle way to quit, as noted above, no independent studies show that e-cigarettes actually help people quit. They may even discourage quitting.

#### **Q (Newman): Do you think that, based on what we know, we should ban e-cigarette use in the same places that we ban cigarettes?**

A (Glantz): Yes. Even though e-cigarettes are less polluting than conventional cigarettes, they still are putting a variety of volatile organic compounds, heavy metals, fine particles and other toxins into the air. Regardless of the concentrations, there is no justification for reintroducing these toxins indoors after we spent 30 years getting rid of them.