“Vaping” E-Cigarettes: How safe are they?

E-cigarettes are designed to look like real cigarettes. They are slender tubes that contain a battery, vaporizer and cartridge that is filled with a form of liquid nicotine. The nicotine liquid is vaporized by a battery powered heating element. The vapor is inhaled by smokers when they draw on the device, like they would when drawing on a real cigarette. The tips of these devices have an indicator light that mimics the burning ash of a real cigarette. There is no smoke or smell of smoke. The use of e-cigarettes is commonly referred to as “vaping.”

E-cigarettes are not regulated by the Federal Drug Administration (FDA). Manufacturers of these products are not required to declare the ingredients in e-cigarettes, nor in the substances inhaled and exhaled by the "smoker." In July 2009 the FDA released a report that not only found varying levels of nicotine in certain e-cigarettes but also found carcinogens, including nitrosamines and toxic chemicals such as diethylene glycol (DEG). A 2009 report in Clinical Toxicology identifies DEG as a clear, colorless, practically odorless, viscous, hygroscopic liquid with a sweetish taste, involved in a number of fatal poisonings and used in antifreeze. There is no way of knowing the levels of nicotine, or the amounts or types of other chemicals contained in various brands of these products consumed by the user. Quality control processes used to manufacture e-cigarettes seem to be inconsistent or nonexistent.

There is concern that the high tech design, ease of availability, wide array of flavored cartridges, and the perception that e-cigarettes are healthier, less toxic and addicting will add to the risks posed by e-cigarettes.

Little is known about the risk of inhaling secondhand vapor from e-cigarettes. Health concerns exist about the safety of e-cigarettes to non-smokers.

The FDA announced in April 2011 that they will regulate e-cigarettes as “tobacco products.” Several states have included or are in the process of adding e-cigarettes to their smoking bans. The U.S. Department of Transportation bans the use of e-cigarettes on planes. Amtrak bans its use on trains. Even the Navy bans it below deck on submarines.

In January 2013 University of Southern Maine will become a tobacco free campus. All tobacco products will be banned from campus, including e-cigarettes.