

Up in Smoke: Deconstructing the Health Claims of E-Cigarettes

Electronic cigarettes, or *e-cigarettes*, have been growing in popularity in recent years. As traditional smoking has declined, use of e-cigarettes has increased among teenagers, surpassing traditional cigarettes. While touted as the “healthier” cousin of the traditional cigarette, e-cigarettes still pose great risk to users. No long-term studies exist on the risks of e-cigarette smoking, nor does the industry currently possess a regulated manufacturing process—addictive nicotine and an unregulated mix of chemicals plague e-cigarettes just as they do traditional cigarettes. The infographic seen below is meant to shed some light on the adverse events and risks e-cigarette users face.

Nicotine content in e-cigarettes is highly variable, regardless of the advertised content, because of the market’s lack of standard manufacturing processes.

After only **5 minutes** of use, e-cigarette smokers show signs of airway constriction and inflammation.

Infections may be harder to kill among e-cigarette users. E-cig vapors help protect the antibiotic-resistant bacteria linked to pneumonia.

The liquid stimulant used, known as **e-liquid**, can cause vomiting, seizures, or death when ingested or absorbed through the skin.

An **atomizer** heats liquid in the cartridge which can thermally breakdown into carcinogenic compounds such as formaldehyde and acetaldehyde.

Higher voltage batteries in e-cigarettes deliver high levels of nanoparticles, which can trigger inflammation and are linked to asthma, stroke, heart disease, and diabetes.

Propylene glycol and glycerin are the main ingredients of e-liquid. These compounds are known to be eye and respiratory irritants when heated and vaporized, and may also create carcinogenic compounds. If the e-liquid is substituted with unregulated synthetic drugs the potential for harm is amplified.



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