Vaping Facts, Myths, and Health Risks

By Alex Berezow, PhD — October 10, 2019

In the wake of over 1,000 injuries and nearly two dozen deaths linked to vaping (probably all or most of which were due to misusing the devices), the public is right to be concerned about the safety of e-cigarettes. Given that we have covered this issue in some depth, we wanted to provide a resource that answers as many questions as possible and provides links to our other articles.

1. **Is vaping safe?**

   Not to sound like a lawyer, but it depends on what is meant by "safe." Nothing in life is 100% safe. According to CDC data [2], in 2017, more than 1,000 Americans fell off a bed and died. So, the appropriate question is, "Is vaping safer than smoking?" (Actually, a better question is, "Is vaping less harmful than smoking?") And the answer to that question is unequivocally "yes." The UK's National Health Service declares vaping to be 95% less harmful than smoking [3], and two hospitals there opened vaping shops [4] to help smokers quit.

2. **Why did some people get sick or die from vaping?**

   So far, it appears that the vast majority of people who got sick or died from vaping improperly used the devices and/or obtained liquids from the black market. The CDC reports [5] that most used THC. The problem with this, as Dr. Josh Bloom explained [6], is that vaping THC-infused oil can cause tiny droplets to deposit in the lungs, possibly triggering lipoid pneumonia.

   On the other hand, CNBC reports [7] that the Mayo Clinic did not detect lipoid pneumonia in the patients it examined. These researchers believe that some sort of chemical assault occurred inside the lungs of those who became sick. While it's too early to confirm the exact cause or source, it is likely that vaping liquid purchased off the black market may be to blame.
(3) What are the health risks associated with vaping?

Nicotine is addictive, so lifelong addiction is a very likely outcome of vaping. Because e-cigarettes are relatively new, the long-term health effects are unknown, but it's safe to assume that some sort of lung damage is likely. Your lungs are not built to inhale anything other than air.

(4) Should vaping be banned?

No, we do not believe vaping should be banned for three reasons. First, there is good evidence [8] that vaping can help smokers quit cigarettes, so e-cigs can be a valuable tool for public health. Second, we believe that, as long as other people aren't being harmed, adults should be allowed to do whatever they want with their own bodies. A lifelong diet consisting solely of bacon cheeseburgers, Twinkies, and pot brownies is also unhealthy, but we don't believe that red meat, processed food, and marijuana should be illegal. Third, bans don't work. Prohibition and the "war on drugs" were both abject failures.

(5) Should "kid friendly" e-cigarette flavors be banned?

This is a tricky policy question. On the one hand, smokers who want to quit may be attracted to vaping, in part due to the variety of flavors being offered. On the other hand, flavors make vaping more appealing to teenagers. More research and thoughtful debate needs to occur on this topic.

(6) How should e-cigarettes be regulated?

E-cigarettes should never fall into the hands of minors. Companies that advertise and stores that sell e-cigarettes to teenagers should be punished. While vaping devices should not be illegal for adults to purchase, it would be best for public health if society thought of them as medical devices to help smokers quit.

For more information, see these articles by ACSH:

Surgeon General Declares War On E-Cigarettes But Not Marijuana, Hookah [9] (December 8, 2016)
Dear CDC, If Marijuana Isn't A Gateway Drug, Neither Are E-Cigarettes [10] (June 20, 2017)
If Seattle Smokers Follow King County's Health Advice, They Will Die [11] (August 28, 2017)
Cigarette Use Has Collapsed, So Media Scares People About Vaping Instead [12] (November 9, 2018)
CDC Misleads By Calling E-Cigarettes A 'Tobacco Product' [13] (February 12, 2019)
Long-Term Vaping Effects Unknown? Separating Science From Hype As E-Cigarette Debate Rages [14] (August 8, 2019)
Can Chemistry Explain 'Vaping Lung'? [6] (September 10, 2019)
Everything Goes To Pot: Myths Are Driving FDA, CDC Vaping Policy [15] (September 10, 2019)
Teen Vaping Doubles Since 2017, But There's A Silver Lining [16] (September 19, 2019)