

“Vaping” / E-Cigarette Use and Youth:

E-cigs . . . also known as electronic nicotine delivery systems (or ENDS), electronic smoking devices (ESDs) or most commonly referred to as “vaping” devices . . . have evolved significantly and grown increasingly popular, especially among youth. In Harford County and Maryland (as currently is the case almost everywhere), there is some good news . . . that cigarette smoking among adolescents has decreased on average to around one in ten youth. However, rates of vaping/e-cig use have shot dramatically upward over recent years, where almost one in four youth report having used these devices.

First, some **history**. Although the first documented reference to an electronic cigarette is a patent filed in **1927** and granted in **1930**, it was never commercialized and it is not entirely clear that even a prototype of this primitive device was manufactured. The creation of the first device that closely resembled the modern e-cigarette received a patent in **1965** but also was never commercialized. The first commercialized product reached major retailers in the early **1980’s** but the device was never a promising technology for nicotine delivery. Technology and research, both in the United States and abroad continued through the 1990’s.

Fast forward to 2003 when what would become the first commercially successful electronic cigarette is created in Beijing, China. By April, 2006, electronic cigarettes began flooding the world marketplace, are introduced in Europe and, within the year, to the United States. While other countries began taking measures to ban importation and distribution of e-cig devices, more and more vaping products became available in the U.S. where no federal regulations were yet in place to oversee the ingress, manufacture and sale of these products. Due to their popularity and unchecked accessibility of devices, parts and “juices” (that is, e-liquids) from internet sites and the widest variety of retail establishments, the growth of the industry has been exponential, and often has been referred to as the “new ‘Wild, Wild West’.”

Finally, on **May 5, 2016**, the U.S. Food & Drug Administration (FDA) announced in a news release that, “Today, the U.S. Food and Drug Administration finalized a rule extending its authority to all tobacco products, including e-cigarettes, cigars, hookah tobacco and pipe tobacco, among others. This historic rule helps implement the bipartisan Family Smoking Prevention and Tobacco Control Act of 2009 and allows the FDA to improve public health and protect future generations from the dangers of tobacco use through a variety of steps, including restricting the sale of these tobacco products to minors nationwide. While this is an important first step, effective implementation and enforcement of policy will likely take years . . . during which adult/parental guidance and vigilance remains vitally important.

On **December 8, 2017**, the Surgeon General of the United States released a 298-page report entitled, “E-Cigarette Use Among Youth and Young Adults”, examining all that currently is known about their use and their potential risk. A full PDF copy of the report is accessible on the web at:

https://e-cigarettes.surgeongeneral.gov/documents/2016_SGR_Full_Report_non-508.pdf

Condensed, very understandable “Fact Sheets” also are available on the web at:

<https://e-cigarettes.surgeongeneral.gov/>

In brief, the Surgeon General’s Report states that e-cigarette use poses significant – and avoidable – health risks to young people in the United States. (Click **here** for a short summary.) Besides increasing the possibility of addiction and long-term harm to brain development and respiratory health, e-cigarette use is associated with the use of other tobacco products that can do even more damage to the body.

Even breathing e-cigarette aerosol that someone else has exhaled poses potential health risks. Because of the relative “newness” of these devices and vaping behavior, scientists are just beginning to learn more about how e-cigarettes affect health. However, there is already enough evidence to justify efforts to prevent e-cigarette use by young people.

Because most tobacco use starts during adolescence, actions to protect our nation's young people from a lifetime of nicotine addiction are critical.