## The Nicotine Epidemic

E-Cigarettes are at an all time high in popularity among youth in America. For many teenagers and young adults, they see vapes as a healthier, cheaper alternative to conventional cigarettes.

Due to misleading marketing tactics and large amounts of misinformation surrounding vapes, e-cigarettes, especially disposable ones, are more popular than any other form of tobacco available in today's society. Among youth and young adults, over 2 million students in middle and high school said that they used vapes in 2021, with the majority of vapes used being flavored e-cigarettes according to the National Youth Tobacco Survey.

A large number of teens begin vaping because they see other young people doing it, and most teens perceive vaping as much healthier than smoking cigarettes. "What I find most concerning about the rise of vaping is that people who would've never smoked otherwise, especially youth, are taking up the habit," says Michael Blaha, director of clinical research at the John Hopkins Ciccarone Center for the Prevention of Heart Disease.

E-cigarette companies even use marketing tactics to target young people specifically.

Fruity vape juice flavors and small devices that look similar to USB flash drives are appealing to the young population.

Blaha states that another reason that vaping is so popular among the youth is that it is much cheaper than traditional cigarettes, making it all the easier for students and young adults to get their hands on e-cigarette products. E-cigarettes also produce significantly less smoke than cigarettes, and they also have a much less pungent smell allowing youth to be much more discreet while using them.

While e-cigarettes are generally considered safer for use than traditional cigarettes, they do not come without their risks. Research done by John Hopkins University revealed that there are still thousands of chemicals in vaping products, including pesticides and flavorings that are linked to toxic effects and respiratory irritation.

Vaping nicotine is also just as addictive as smoking cigarettes, and e-cigarettes actually contain much higher levels of the drug than cigarettes. Vaping products such as JUULs contain about as much nicotine as 20 cigarettes in one replaceable cartridge.

According to John Hopkins University, nicotine may even be as addictive as heroin or cocaine. With extremely high levels of nicotine in vapes, teens are much more likely to get hooked without even realizing it.

Frank Rickman, a retired cardiologist who has spent a large portion of his time in the past few years researching the effects of e-cigarettes on the brain and body, says that using vapes is very detrimental to young teens and adults. Rickman stated that "Using any kind of drug at a young age is detrimental, and nicotine is no exception. It can affect the brain's development, as well as causing respiratory and cardiovascular damage that will affect the body for years to come."

Nicotine use during teenage years can negatively impact memory, mental cognition, and even attention span. Nicotine use at a young age also makes teens prone to addiction as well as using other drugs as they get older.

Extensive Research from John Hopkins University shows that nicotine raises blood pressure as well as spiking your adrenaline, which in turn increases the heart rate and the chances of a heart attack. Emerging data even suggests that vaping is possibly linked to chronic lung disease and asthma.

Rickman also pointed out the fact that e-cigarettes are still a relatively new product, and there is very little information on the long term effects of vaping. E-cigarettes were introduced to the market in 2007, and have only grown in popularity since their introduction as an alternative to conventional cigarettes.

"We have a pretty good idea of what vaping does to the brain and body short term, but there just isn't enough information on the subject and they haven't been around long enough for us to realistically predict the long-term effects of e-cigarettes," said Rickman. "Cigarettes were around for 50 to 60 years before information about the long-term effects were discovered."

While e-cigarettes have been promoted as an alternative for cigarette smokers to kick their habit, John Hopkins University states that most smokers using vapes to quit cigarette smoking end up using vapes as well as e-cigarettes simultaneously. I agree, in my personal experience most cigarette users that have tried using vape products to wean themselves off of cigarettes end up using them both.

Rickman's advice to teens and young adults is this, "If you haven't started vaping or developed a nicotine addiction, keep it that way. If you are a teen or adult who does use e-cigarettes, find a way to stop as soon as possible because you are damaging your body and possibly affecting your future."

John Hopkins University. (2022). *5 Vaping facts you need to know*. <a href="https://www.hopkinsmedicine.org/health/wellness-and-prevention/5-truths-you-need-to-know-about-vaping">https://www.hopkinsmedicine.org/health/wellness-and-prevention/5-truths-you-need-to-know-about-vaping</a>

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