

# **The Dangers of Second-Hand Vaping**

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**Most early mornings of the week you see your fourteen-year-old daughter off on the school bus for her thirty-minute bus ride to school. She is accompanied by her fellow classmates and this routine is followed again in the afternoon to take her back home. You have placed total confidence in the school district, the bus driver and the bus to take your precious daughter to and from school without incident.**

**Little do you know is that the real danger lies not on the outside of the bus with possible car accidents or a failed brake system but well within the bus itself. It turns out that many of the teenagers will secretly take puffs of their multi-flavored vapor devices, often filling the nearby air with toxic residue for all to breathe. Your daughter is being poisoned by second-hand vaping and you had no idea that this was going on.**

**Vaping is the new trend these days especially among "Millenials" and teenagers. Vaping is described as using a propellant device like an aerosol to turn nicotine, marijuana (THC) and other flavors into a fine mist so that one can get "high" or mildly buzzed from inhaling this mist. These are also called "e-cigarettes." Many errantly believe that an e-cigarette is a safe and harmless way of easing their tensions and avoiding the well-documented toxicity of regular cigarette smoking.**

**The vaping industry has been booming of late. Many people choose vaping in order to quit smoking cigarettes. They are still getting nicotine into their system without some of the other side effects. Vaping does not carry the burden of ingesting tar and micro-burnt particles into your lungs. A vaping device is easier to carry around than a lighter and a pack of cigarettes.**

**Statistics from 2015 show that over 3 million middle school and high school students vape regularly. Many of them do this in secret without their parents, teachers or bus drivers even aware. Vaping supplies are illegally sold and used by minors but this has not stopped them from finding ways to purchase these items.**

**There are many known harmful consequences caused by vaping. One could develop a respiratory illness from the aerosol mist. Cancer causing chemicals are released in the vapor. Nicotine ingestion by itself can have many harmful effects especially damage to a developing young brain.**

**"Safer than smoking" does not necessarily mean that it is safe. This is like saying that driving 150 miles per hour in a car is safer than driving 150 miles per hour on a motorcycle. Vaping can damage your circulatory system, damage your brain and weaken your immune system making you more susceptible to illnesses. Vape aerosol can also cause DNA damage. A study in 2015 by John Hopkins Bloomberg School of Public Health found that toxic heavy metals like nickel, lead, aluminum and chromium were found leaking from the vaping devices into the bloodstream of the user. Heavy metal toxicity can cause a range of health problems from cancer, heart disease and brain diseases. Formaldehyde and nitrosamines, which are linked to cancer, are also present in vaping aerosols. Silicate particles known to cause lung disease are also found in the vaping mist.**

**Second-hand vaping is equally a growing problem. We used to believe that there was a magical barrier in airlines and in restaurants between the smoking section and the non-smoking section. How foolish were we to believe in that. Just like in the case of smoking cigarettes, we magically believe that there is a barrier between one who is vaping and others. This is not the case. One teenager vaping in the back of a bus might be quietly hidden from the bus driver but might be exposing the entire bus full of kids to the harmful vapors. The aerosol vapors from a device do not just disappear instantaneously but are casually floating around looking for an innocent pair of lungs to float into.**

**A study by Wolfgang Schober of the Bavarian Health and Food Safety Authority printed in *International Journal of Hygiene and Environmental Health* found that e-cigarettes significantly worsened the air quality in an enclosed room by filling it with heavy metal residue, nicotine and PAH ( polycyclic aromatic hydrocarbon).**

**The FDA (Food and Drug Administration) has yet to make any determinations about the health or safety of e-cigarettes. Just as in many cases, many people believe that the FDA's job is not to protect consumers but to protect profits for corporations. E-cigarettes are a very big and growing business with many who have invested in them (like tobacco companies). E-cigarettes are tobacco free so are virtually unregulated. However some cities have banned them from public areas. In its soft approach to regulation the FDA is in the process of asking e-cigarette manufacturers to submit a plan on how they might limit the sale of their products to minors. This is like asking the alcohol industry to find a way that minors cannot buy alcohol illegally.**

**As if parents needed something else to worry about, now you have it. E-cigarettes carry with them many potential health hazards. Being exposed to second-hand vaping is just like you took a puff yourself. That happy-go-lucky bus filled with kids singing camp songs might be arriving home each day from school with a toxic brew building up in their bodies from twice daily trips through poison hell. It just takes**

**one kid in the back of the bus to expose all of those on the bus. E-cigarettes are not safe to the users and to those around them. While you might not be the one using the vape device you are still being exposed to it. Maybe it is time to find new friends or ride your bike to school.**

## **Resources**

### **1. Johns Hopkins Bloomberg study on heavy metals and vaping**

**<https://www.jhsph.edu/news/news-releases/2018/study-lead-and-other-toxic-metals-found-in-e-cigarette-vapors.html>**

### **2. Is Second Hand Vaping Safe?**

**<https://www.scientificamerican.com/article/e-cigs-and-second-hand-vaping/>Wolfgang Schober of the Bavarian Health and Food Safety Authority**

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