Vaping and E- Cigarettes

In the past few years we have seen a rapid escalation in vaping (the inhalation of a combination of vaporized chemicals) or the use of electronic cigarettes by young people. According to the Centers for Disease Control (CDC) the number of never before smoking youths who tried e-cigarettes more than tripled over a recent 3 year period.

While some have suggested the notion that these are safer than cigarettes, there are concerns. Researchers have found that both vape users and cigarette smokers showed signs of diminished activity in certain genes, however the vape group in particular exhibited decreased activity in 300 more genes in comparison to regular smoking! This evidence suggests compounds in the liquid are harmful to the body.

A group of Harvard researchers found that common flavoring substances found in vape liquid caused permanent, and sometimes fatal scar buildup in the lungs. These flavoring chemicals systematically destroys the lungs' smallest airways, resulting in a lung condition known as bronchiolitis obliterans, or "popcorn lung. These reports further conclude that regardless of whether you are purchasing cheap disposable electronic cigarettes in convenience stores or expensive cartridges found in smoke shops, you are at equal risk for exposure to popcorn lung and its dangerous implications.

Researchers at the University of California, San Diego found a strong association between individuals with anxiety, depression, and other mental health issues, and using e-cigarettes. Findings indicate that people who experience these conditions are three times as likely to be current users of vaping devices compared to individuals with no mental health conditions.

In another study, researchers measured the makeup of what they refer to as the "aerosols," or chemical composition of the vape smoke. They found that metals such as tin, nickel, silver, iron, aluminum, silicate, and chromium were present in this vape smoke in levels equal to, or greater than the concentrations found in traditional cigarette smoke. These nanoparticles are known for penetrating deep into the respiratory system and reaching vulnerable sacks in the lungs, often causing irreversible damage and permanent scarring. Internal bodily exposure to these metals are also linked to risks for cancer and abnormal cell growth. Another study from the University of Oregon indicates that many vaporizers contain more formaldehyde than regular cigarettes, a chemical associated with cancer risks when inhaled.

There are reports of vaporizers exploding due to the overheating of lithium batteries. CNN interviewed an individual in Albany NY, with a hole in his tongue, and the loss of teeth with burns to his hands.

Lipoid pneumonia was found in a 42-year-old woman who had recently started using electronic cigarettes, causing the onset of her respiratory issues. Doctors linked the source of her infection to her recent exposure to the glycerin-based oils found in the compounds of e-cigarette vapor.

And, as our young people tend to do, their ingenuity has led to an increase in marijuana smoking in e-cigarettes where the vapor is known to diminish the familiar odor of cannabis. Meghan Morean conducted research at Yale University surveying more than 3,800 students at five Connecticut high schools. They found a surprising number, 30% of the kids admitted to having used marijuana or hashish with about 19 percent using both cannabis and e-cigarettes. The smell of vaping marijuana isn't as strong plus the similarity in appearance of hash oil and nicotine solutions make this a really inconspicuous way of using marijuana. Be sure to monitor youngsters closely and, be mindful that trends can and do, change rapidly.

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