

The Dangers of Vaping Oral Health Perspective

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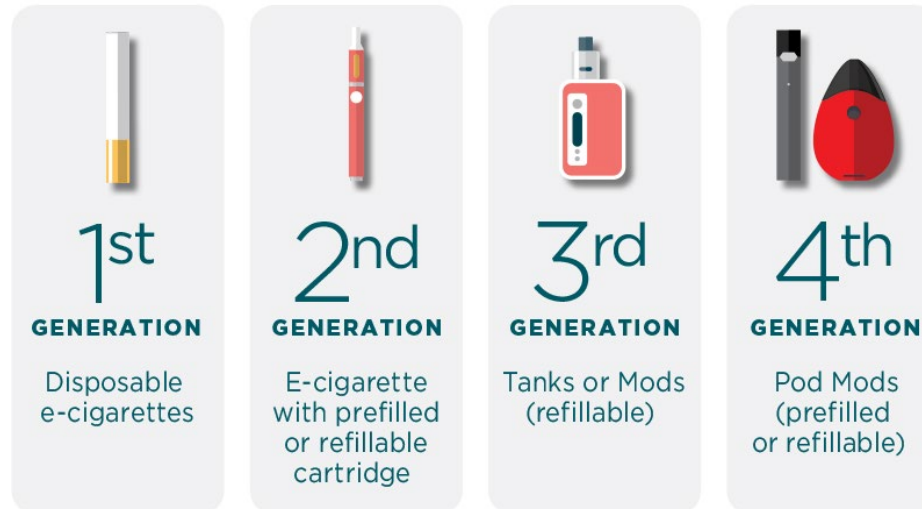
Protecting More Than Just Your Smile®

Vaping, or the use of E-Cigarettes:

“Represent a remarkable and increasing proportion of the tobacco product consumption” according to the *Journal of Advanced Medical and Dental Sciences Research*

Have become fashion statements

The Evolution of E-Cigarette, or Vaping, Products



Texas Department of State Health Services

Discussion Points:

- E-cigarettes are battery operated devices
- The heating element vaporizes a mixture of chemicals in a solution:
 - Nicotine
 - Additives—propylene glycol or glycerin/glycerol
 - Flavoring agents
- Claim to be safer alternative to conventional smoking
- Ads targeting younger segments of the population
- Marketed as aids in smoking cessation
- Claim that they help *reduce* the health risks of smoking
 - Claim that they can *improve* Oral Health





What research has shown:

How does it all relate to
Oral Health?

Just the facts:

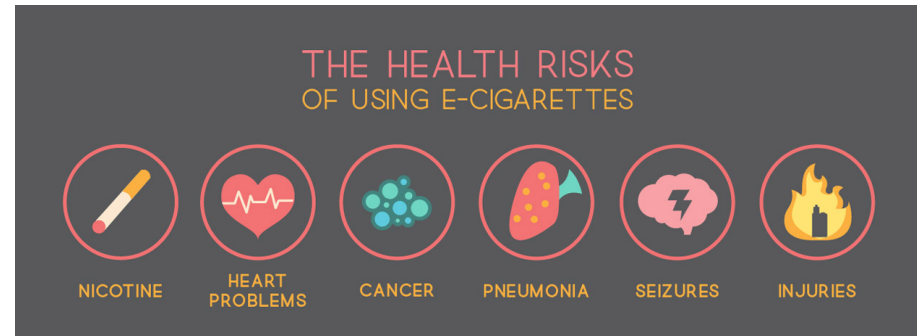
The long-term effects of vaping on the body are not yet completely understood.

We know that:

- Nicotine is a vasoconstrictor (the narrowing of the blood vessels)
- Vaping delivers higher Nicotine concentration
- Vasoconstriction contributes to hypertension
- Nicotine is proven to be addictive
- Vaping also delivers aerosol/vapor to the lungs—instead of smoke
- Vaping can lead to inflammation of the lungs
- E-cigarette vapor contains organic compounds

Systemic side effects:

- On the Brain
 - Addiction to nicotine
- On the heart and circulation
 - chest pain, coughing, shortness of breath
 - increased BP,
 - increased heart rate
- On the stomach
 - vomiting
 - nausea



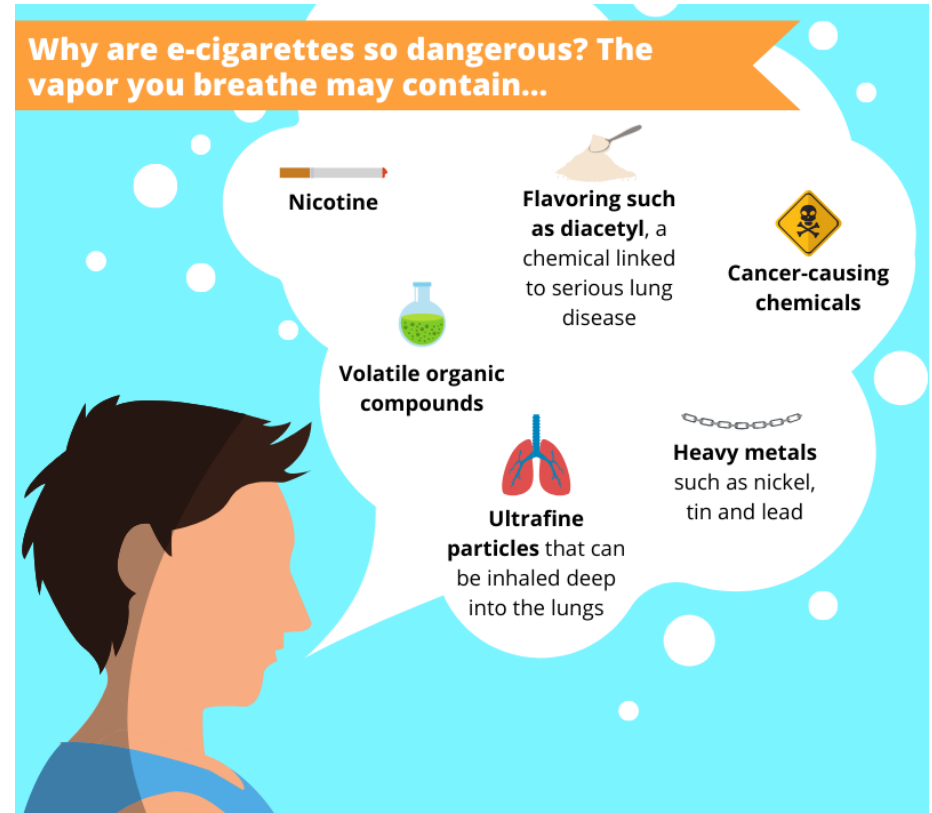
What about the mouth then?

Where does the vapor go before it reaches the lungs? Obviously, the oral cavity!

- New research has shown impacts on gum cells
- Links to oral cancer
- Increased rates of tooth decay and gum disease
- Damage to the DNA of gum cells—from the organic chemicals
 - Increased risk of periodontal disease
 - Decrease repair and regenerative capability of the gum tissues

COVID-19

“While not proven to increase the risk for or severity of COVID-19, it is known that e-cigs can damage the lungs. A national survey was conducted in May 2020 with more than 4,000 participants, ages 13 to 24 years. It was found that, compared to a similar non-vaping cohort, teenagers and young adults who had ever used EC had a **five-fold** risk of experiencing symptoms including tiredness, cough, fever, difficulty breathing and of being diagnosed with COVID-19. If they also smoked cigarettes, the risk level further increased. Two independent studies on the effects of Nicotine showed that in vaping, or in smoking conventional tobacco products, nicotine increased binding, entry and replication of SARS-CoV-2. “



For more information visit
healthoregon.org/vapingillness

CONCLUSION:



- E-cigarettes are relatively new
- No long-term studies regarding their effect on oral health.
- E-cigarettes can still contribute to periodontal diseases by the cell injury, inflammation, and reduced ability to repair and heal.
- The chemicals in the e-cigarette vapor cause the DNA damage.
- Vaping harms the lungs
- There is insufficient evidence to back-up promotion of vaping as a smoking cessation aid

Long-term research is necessary to fully understand the dangers of vaping, and the anecdotal claims of being less harmful than smoking in long-term use.

Although more conclusive data is needed, a study of 4300 young individuals for Covid showed those who vaped regularly were 5 to 7 times more likely to test positive.

Johns Hopkins Medicine