

# E-Cigarettes Related Health Hazards-A 2020 Update

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## Letter to the Editor

Dear Editor,

In the United States, 30% of cardiovascular disease-related mortality is due to Tobacco smoking [1]. Electronic (e) cigarettes have nicotine content ranging between 16 and 24 mg/ml. The adverse impact of e-cigarettes can affect the respiratory tract, central nervous system and, immune system [2]. Most of the flavoring chemicals used in e-cigarettes significantly increase the level of pro-inflammatory cytokines, which can lead to pulmonary toxicity and related respiratory disorders. E-cigarette use among adults between age groups 18 and 25 years or older has increased dramatically [3]. Male students under the age group of 12-17 especially Hispanics and Whites are more addicted to the use of e-cigarettes [4].

## Nicotine Use in Early Adolescence

Young males are more prone to e-cigarette addiction mainly due to its effects on the brain. The majority of the e-cigarette's users reported having ear, nose and throat irritation. Chemical residue in the lungs can provoke many respiratory disorders. Recent studies show that e-cigarette can cause impaired flow-mediated vasodilation which can further lead to endothelial dysfunction and related cardiovascular disorders [5].

## Pregnancy and Related Complications

Plasma nicotine concentrations are similar in e-cigarette users and those who use other means of smoking [6]. Exposure to nicotine during pregnancy is equally harmful to both mother and fetus [7,8]. Since nicotine can cross the placenta, fetal complications and delayed postnatal development can occur following nicotine exposure [9]. Sudden infant death syndrome (SIDS) due to nicotine exposure is common and hence the use of e-cigarettes during pregnancy should be strictly avoided [10].

## Recommendation to Government and Health Care Providers

Nowadays, Marijuana like substances can be available through e-cigarettes. Parent education is very important as many e-cigarettes

may look like a pen drive or a key chain. Awareness camps should highlight the fact that e-cigarette aerosol has carcinogenic substances like acrolein, volatile organic compounds, and heavy metals. The government should impose strict regulations on the sales of all nicotine related products. Smoking cessation should be encouraged and health care professionals should provide necessary support to these young individuals.

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