



# Fact-Sheet

## E-Cigarette & Health

### Electronic cigarettes

Electronic cigarettes or e-cigarettes are also called vapes, e-hookahs, vape pens, tank systems, mods, and electronic nicotine delivery systems (ENDS). Using an e-cigarette is commonly called vaping. E-cigarettes work by heating a liquid to produce an aerosol that users inhale into their lungs. The liquid can contain nicotine, tetrahydrocannabinol (THC) and cannabinoid (CBD) oils, and other substances, flavorings, and additives. THC is the psychoactive mind-altering compound of marijuana that produces the “high.”

The tobacco industry and its front groups are promoting e-cigarettes and New Novel Products (NNPs) as safe alternatives to smoking. They are constantly involved in its marketing through digital, social, and print media. They are claiming that these products are safe and healthy. Front groups are perpetually presenting NNPs as a safe alternative to smoking. What we do know so far is that vape aerosol contains a number of harmful substances including:

<https://is.gd/tvWGXp>  
**Nicotine**



A toxic addictive which is the chief active constituent of tobacco. It acts as a stimulant in small doses, its continuous use blocks the action of autonomic nerve and skeletal muscle cells.

<https://is.gd/uhenJW>  
**Benzene**



Benzene causes harmful effects on the bone marrow and can cause a decrease in red blood cells, leading to



anemia, this chemical is also found in motor vehicles' exhaust.

<https://is.gd/gal471>  
**Acrolein**



Most often used as a weed killer, this chemical can also damage lungs.



<https://is.gd/BQ0G5N>  
**Lead**



It causes anemia, weakness, and kidney and brain damage.

<https://is.gd/BJVjfv>  
**Metals/  
Metalloids**



Identified 24 studies on metals/metalloids in e-liquid, e-cigarette aerosols, and human bio-samples of E-cigarette users. Metal/metalloid levels, including aluminum, antimony, arsenic, cadmium, cobalt, chromium, copper,



iron, lead, manganese, nickel, selenium, tin, and zinc, were present in e-cigarette samples in the studies reviewed.



<https://is.gd/gal471>

### Formaldehyde

This toxic chemical can cause lung disease and contribute to heart disease.

<https://is.gd/ODTfAo>

### Toluene

Its exposure cause irritation of the eyes and nose,

weakness, exhaustion, confusion, euphoria, dizziness, headache; dilated pupils, lacrimation; anxiety, muscle fatigue, insomnia; numbness and dermatitis.

<https://is.gd/uvht5A>

### Ultrafine particles

These particles also pose danger to health.

Moreover, vaping badly effects **lungs**.

Along with nicotine, non-vapers are also exposed to **ultrafine particles** from secondhand vape aerosol, which may increase the risk of cardiovascular disease.

<https://is.gd/uvht5A>

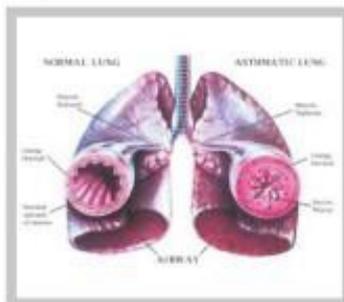
### Diacetyl

Its exposure causes severe respiratory impairment and obliterative bronchiolitis, a serious lung disease that is irreversible.

<https://is.gd/DMrd8z>

### Pneumococci

Advanced experimental studies suggest that vaping increases the susceptibility of the airway to infections.



<https://is.gd/WcFZRq>

### Vitamin E Acetate

It is a condensing agent in vaping products, and all injured lung fluid samples appear to harbor this agent.

<https://is.gd/fpAGuC>

### Propylene glycol and Vegetable Glycerin

The main chemicals in e-cigarettes have been linked to increased cough, mucus secretions, chest tightness and reduced lung function, all of which can make asthma worse. Vaping can irritate the **lung's airways**, making **asthma** attacks more likely.

Funding was provided by STOP for the conduction of the research and development of the factsheet.

<https://is.gd/bflz9x>

### Seconded-Hand Vape

Nonsmokers exposed to secondhand Vape aerosol absorb similar levels of nicotine as people exposed to secondhand cigarette smoke. Secondhand Vape aerosol also contains several known carcinogens that may increase the risk of certain cancers.

<https://is.gd/IFm7kW>

### Vaping causes Erectile Dysfunction

Risk of erectile dysfunction can increase as more tobacco cigarettes are smoked and nicotine levels therefore rise, which also held true in the study for e-cigarettes. A study in America found that nearly 14,000 men aged between 20 and 65, found that those who used e-cigarettes were 2.4 times more likely to suffer from erectile dysfunction than non-smokers.



<https://is.gd/kf3w4U>

### E-cigarette and Women

E-cigarette usage may impair **fertility and pregnancy** outcomes, according to a mouse study published in the *Journal of the Endocrine Society*.

Many young and pregnant women are using e-cigarettes as a safer alternative to smoking, but little is known about the effects on fertility and pregnancy outcomes.

- Chronic exposure to e-cig aerosols during early development causes vascular dysfunction and offspring growth deficits.

The fact shows that the projection of e-cigarettes by the Tobacco industry and its front groups as a safe alternative is falsified and the purpose of this negative propaganda is to increase their profit and trap people with new tactics, people should be aware of these tactics. The tobacco industry and its front groups are negatively enticing young people.

<https://is.gd/P9qUPh>

### Recommendations

! Such study is not conducted in Pakistan up till now but it is feared that the same consequences can be found here.

! Special monitoring should be installed in hospitals to check the effects of vaping on different diseases.