# Vaping

Harm Reduction or Harm **Promotion?** 

Get the Facts – Make the **Healthier Choice!** 



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### **IS VAPING BAD FOR YOU? AND 12 OTHER FAQS**

Vaping has risks, regardless of what you vape. Although it's less risky than smoking cigarettes, the safest option is to avoid vaping and smoking altogether.







### **HERE'S HOW A SINGLE SESSION OF VAPING CAN HURT YOUR LUNGS**

Researchers are learning how vaping e-cigarettes can cause lung damage.

- One vaping session can result in changes in blood flow. •
- Researchers worry vaping can lead to hardening of arteries over time.
- Vaping remains most popular with young people under 30.

### **Dangerous to All** – But MORE to Teens! CLICK TO WATCH.

For more go to Vaping? #NotEvenOnce

Reducing Vaping and Reducing Vaping and Young Admits

Young Adults

## **E-CIGARETTES** ENDERCE PARED RESOLACE CUIDE SHARE **EVIDENCE ON** HEALTH IMPACTS



Non-smokers who vape are three times as likely to take up regular smoking as non-smokers who don't vape.

CAUSES INJURY

Impacts include poisoning, seizures, burns, and lung

disease.

Australian

#### SMOK **CESSATION UNCLE**

Evidence that e-cigarettes are effective for smoking cessation is limited. Most smokers who use e-cigarettes continue to smoke.

### HARMFUL TO THE ENVIRONMENT

E-cigarettes contain single-use plastics & lithium batteries, cause pollution & can start fires.

### Source:

https://nceph.anu.edu.au/research/ projects/health-impacts-electroniccigarettes#health\_outcomes

This guide supports health care providers, systems, and communities seeking to prevent vaping. It describes relevant research findings, examines emerging and best practices, identifies knowledge gaps and implementation challenges, and offers useful resources.

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### Vaping Harm Reduction or Harm Promotion? Get the Facts – Make the Healthier Choice!

### **E-CIGARETTES ARE HARMFUL AND ADDICTING YOUTH.** (REPORT: ANU).

The major review found use of nicotine e-cigarettes increases the risk of a range of adverse health outcomes, particularly in youth, including taking up smoking, addiction, poisoning, seizures, trauma and burns and lung injury.

"We reviewed the global evidence in order to support informed choices on vaping for Australia," lead author Professor Emily Banks from the ANU National Centre for Epidemiology and Population Health said.

"The evidence shows e-cigarettes carry significant harms. Nicotine is a key ingredient and one of the most addictive substances known. Vaping is causing addiction in a new generation of users.

"Young non-smokers who vape are around three times as likely to take up smoking than non-vapers. Nicotine use in children and adolescents can lead to lifelong addiction issues as well as difficulties in concentration and learning. Vaping is also illegal if it isn't on prescription."

The report found early warning signs of adverse effects of e-cigarettes on cardiovascular health markers, including blood pressure and heart rate, and lung functioning.

"The evidence is there for some of the risks but for most major health outcomes, like cancer, cardiovascular disease and mental illness, we don't know what the impacts of e-cigarettes are. Their safety for these outcomes hasn't been established," Professor Banks said.

"There are myths targeting young people; the false ideas that vapes wouldn't be widely available if they were dangerous and 'it's just water vapour'.

"Vapes deliver hundreds of chemicals - some of them known to be toxic and many others with unknown effects.

"In Australia, over two million people have used e-cigarettes. Use is more common among youth, particularly young males, and among smokers and the majority is not for the purposes of smoking cessation."



use in Australia is by people who also smoke, 31.5 per cent is by past smokers and 15.5 per cent is people who have never smoked.

"The report found limited evidence that nicotine e-cigarettes were effective to help people quit smoking in the clinical setting," Professor Banks said.

"Most people who quit smoking successfully do so unaided.

"E-cigarettes are likely to be harmful for non-smokers and for people who use them while continuing to smoke - the commonest use pattern currently.

"E-cigarettes may be beneficial in the small number of smokers who use them to quit smoking completely and promptly, but there is a huge uncertainty about their effectiveness and the overall balance of risks and benefits for quitting."

The report supports national and international efforts to avoid e-cigarette use in the general population, particularly in non-smokers and youth.

"Our young people have been through a lot and they deserve the best future possible," Professor Banks said.

"The evidence is in that avoiding e-cigarettes should be part of that."

Source: https://www.anu.edu.au/news/all-news/e-cigarettes-areharmful-and-addicting-youth-report

The report found more than half, 53 per cent, of current e-cigarette

### **CHILD VAPING 'SKYROCKETING'**

"A single 30-minute vaping session can significantly increase cellular oxidative stress. Middlekauff et al demonstrated that vaping is associated with adverse changes in the body that can presage future health problems."

Source: https://jamanetwork.com/ journals/jamapediatrics/articleabstract/2782800

GMA COVER STORY VAPING SURVIVOR SPEAKS OUT TEEN'S WARNING AFTER DOUBLE LUNG TRANSPLANT



#### **PRODUCT SAFETY:**

- E-liquids can contain nicotine (even when labelled 'nicotinefree') and many other chemicals. More than 200 chemicals have been detected in e-liquids.
- E-cigarettes can be harmful. All e-cigarette users are exposed to chemicals and toxins that can harm your health.
- Use of e-cigarettes can result in serious burns and injuries. In some cases, these burns and injuries have resulted in death. Poor quality e-cigarette batteries or high-power devices increase the risk of explosions that can cause serious burns and injuries.

#### HEALTH EFFECTS:

- Use of e-cigarettes can result in seizures in some users.
- Exposure to e-liquids that contain nicotine can result in poisoning for some users which, although it may not happen to everyone, can be severe and cause death.
- E-cigarette-related calls to Australian Poisons Information Centres have increased over the past 5 years. Most poisonings occur in toddlers and adults.
- Use of e-cigarettes can result in a serious and sometimes fatal lung condition known as E-cigarette or Vaping Associated Lung Injury (EVALI) in some users. Most cases of EVALI reported in the United States of America were linked to cannabis oils and vitamin E acetate, but other chemicals may also contribute to this condition.
- Use of e-cigarettes that contain nicotine probably results in throat irritation, cough, dizziness, headaches and nausea.
- There is not enough information from human research studies to know about the potential impacts of e-cigarette use on conditions such as cancer and cardiovascular disease, reproductive health, respiratory conditions (e.g. asthma) and mental illness.
- Lack of information does not mean that e-cigarettes are safe. More information is needed to know if long-term e-cigarette use is safe or if it harms your health.
- Can cause serious burns and injuries.

#### SPECIFIC HEALTH EFFECTS BY TOBACCO SMOKING STATUS:

• If you have never smoked tobacco cigarettes and you use or are thinking of using e-cigarettes. There are no health benefits of using e-cigarettes if you do not currently smoke tobacco cigarettes. You can become addicted if you use e-cigarettes that contain nicotine. <u>If you are a **current tobacco smoker** and</u> <u>you use or are thinking of using e-cigarettes</u> you will probably experience immediate increases in heart rates and blood pressure and stiffening of the arteries if you use e-cigarettes. You may become addicted to e-cigarettes if they contain nicotine and you may use e-cigarettes in excess.

- If you are a former tobacco smoker and you use or are thinking of using e-cigarettes
- You may experience a decrease in blood pressure after you have switched.

### E-CIGARETTE USE AND TOBACCO SMOKING:

- Tobacco smoking uptake <u>If you have never smoked</u> <u>tobacco cigarettes</u> and you use or are thinking of using <u>e-cigarettes</u>
- You are more likely to try tobacco smoking or become a tobacco smoker if you use e-cigarettes.
- Tobacco smoking cessation
- If you are a current tobacco smoker and you use or are thinking of using e-cigarettes
- There are other proven safe and effective options to help you quit smoking. E-cigarettes are not proven safe and effective smoking cessation aids.
- Short-term e-cigarette use may benefit you if you are able to quit smoking and have been previously unsuccessful with other smoking cessation aids. However, not everyone finds e-cigarettes helpful for quitting.
- Research studies have found that it was more common for smokers to become dual users (using both e-cigarettes and tobacco products at the same time) than quit if they used nicotine e-cigarettes. For some smokers, using nicotine e-cigarettes may assist them to quit; however, more research is needed to confirm the harms and benefits of using them for this purpose. For additional assistance to quit tobacco smoking or quit e-cigarettes you are encouraged to seek further information from reliable sources, such as your healthcare practitioner or quit services.
- **Relapse to tobacco smoking:** If you are a former tobacco smoker and you use or are thinking of using e-cigarettes. Using an e-cigarette may increase your chance of smoking relapse.

(Source: https://www.nhmrc.gov.au/health-advice/all-topics/ electronic-cigarettes/ceo-statement)

### VAPING MESSES WITH YOUR GENES & IMPACTS IMMUNITY.

"Our study, for the first time, investigates the biological effects of vaping in adult e-cigarette users, while simultaneously accounting for their past smoking exposure. Our data indicates that vaping, much like smoking, is associated with dysregulation of mitochondrial genes and disruption of molecular pathways involved in immunity and the inflammatory response, which govern health versus disease state..." Ahmad Besaratinia, PhD, Professor of research population and public health sciences at Keck School of Medicine. **Full Research:** https://www.nature.com/articles/s41598-021-01965-1



### VAPING ANYTHING IS BAD - CBD VERY MUCH INCLUDED!

(US military have a blanket ban on vaping CBD products)

"Depending on the temperature and atmosphere, 25–52% of CBD was transformed into other chemical substances:

 $\Delta$ 9-THC,  $\Delta$ 8-THC, cannabinol and cannabichromene were the predominant pyrolysates in both conditions, all formed by cyclization reaction. THC was the main pyrolysis product at all temperatures under both oxidative and inert conditions. *Our results point out that CBD in e-cigarettes can be considered as a precursor of THC, thus it bears all the dangers related to this psychoactive compound.* Our findings are fundamental contributions to the safety profile of CBD-based e-cigarettes." Source: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8076212/

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### **OTHER ARTICLES:** (CLICK TO VISIT)



**E-Cigarettes and** Vaping-Related Disease



Vaping and popcorn lung?



Adolescents' Use of "Pod Mod" E-Cigarettes -**Urgent Concerns** 



CDC. FDA. States **Continue to Investigate Severe Pulmonary Disease** Among People Who **Use E-cigarettes** 

North Carolina

Says It Is Suing

8 E-Cigarette

Companies



DON'T BUY STREET VAPING PRODUCTS, CDC, FDA WARN



**Officials Warn People Against** Vaping Amidst Outbreak of **Mysterious Lung** Disease



Youth Vaping and Associated **Risk Behaviors** – A Snapshot of Colorado



School vaping ban goes into effect as students return



**New York State** Dept of Health: Unexplained Vaping-associated **Pulmonary Illness** 



India proposes ban on e-cigarettes, with jail terms for offenders



Kansas confirms first death due to vaping, sixth vaping-related death nationwide



What we know about the mysterious vaping-linked illness and deaths



What's New

in E-Cigarette

**Regulation?** 

Not so fast CDC is not ready to blame illicit street vapes for illnesses

**US** Government

looks to ban flavoured vaping

products



Pulmonary **Illness Related to** E-Cigarette Use in Illinois and Wisconsin - Preliminary Report



What you should know about the outbreak of server lung problems linked to e-cigarettes and vaping – Gold, MD



Juul is the new Big

Tobacco? Wave

of lawsuits signal

familiar problems

Imaging of Vaping-**Associated Lung** Disease



Vaping: As an imaging scientist I fear the deadly impact on people's lungs



Vaping-Related

Injuries Surge;

'Consider Not Using'

e-Cigs: CDC

Vaping Illnesses: **Consumers can Help Protect Themselves** by Avoiding Tetrahydrocannabinol (THC) - Vaping Products



**#PotVaping – Facts** & Talking Points



**FDA** warns JUUL Labs for marketing unauthorized modified risk tobacco products, including in outreach to youth



**VAPING In Australia**  Not Reducing Harm!



FTC Sends Warning Letters to Companies Advertising Their **CBD-Infused Products** as Treatments for Serious Diseases,



CDC – Centre for Disease Control (Outbreak of Lung Injury Associated with E-Cigarette Use, or Vaping)

