

# Tobacco Control News

Evidence Overview - November 2025

## Vaping and Health: An Update on the Evidence



### Hello TIS Teams!

This month I wanted to share a quick update on some of the latest evidence about the harms of vaping. Research in this area is growing rapidly, and new studies continue to shed light on how e-cigarettes (vapes) affect health. Most studies so far focus on short-term use, as vapes are still quite new. However, because they contain many of the same toxic chemicals as cigarettes, there are concerns that the long-term effects are similar to smoking. Here's a short summary of the recent research looking at how vaping can affect both physical and mental health:

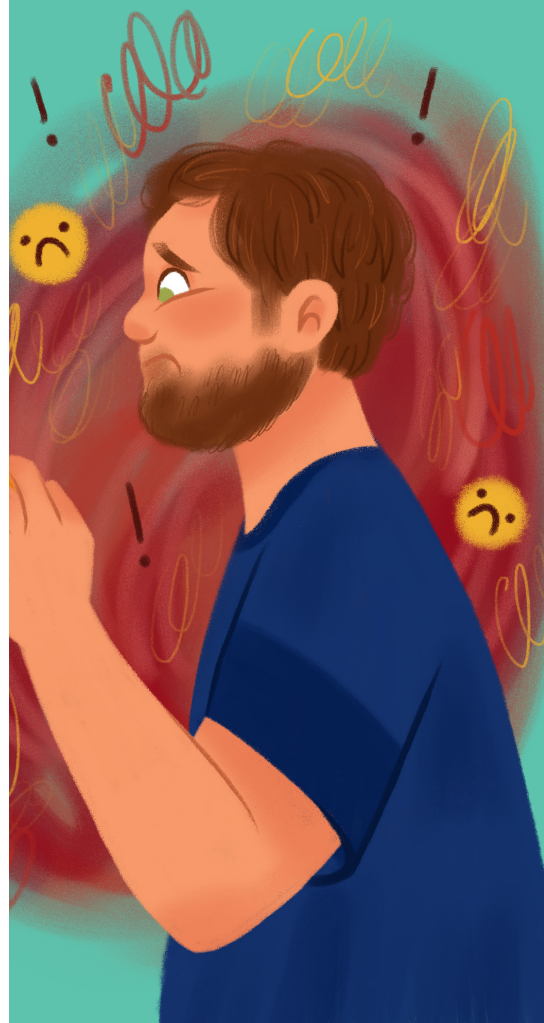
### Vaping & Mental Health

- Research is showing more links between vaping and mental health. A [comprehensive review](#) of the literature in 2025 showed a rapid increase in publications on vaping & mental health (77% of papers reviewed were published in 2020-2024), showing this is an emerging field. People who vape are more likely to experience depression, anxiety, stress and other mental health problems than those who don't vape. According to [Tobacco in Australia](#), research has linked vaping to depression, anxiety, stress, ADHD, eating disorders and other mental health problems, especially among young people. The most recent evidence has shown the following:
  - A [US study](#) (2024) of middle and high school students found that young people who currently used e-cigarettes were about twice as likely to report moderate to severe symptoms of depression and anxiety (42%) compared with those who had never vaped (21%). Youth with worse symptoms of depression and anxiety were also more likely to show signs of nicotine dependence such as wanting to vape within 30 minutes of waking or having strong cravings.
  - A [systematic review & meta-analysis](#) (2025) found that e-cigarette use is significantly associated with increased risk of suicidal ideation, suicide attempts, and suicide planning among adolescents and young adults
  - An [umbrella review](#) (2025) found consistent associations between vaping and poorer mental health outcomes, among other harms.
- In [Australia](#), about 12% of people with a mental health condition use e-cigarettes compared with 6% of those without. [Evidence from the University of Sydney](#) (2024) found that 12–14-year-olds with severe depressive symptoms were over twice as likely to have tried e-cigarettes compared with those without.
- Some people believe smoking or vaping helps with stress or low mood, but evidence shows that nicotine use can make mental health worse over time, while [quitting](#) improves it. It is important that people with mental health conditions are supported to quit both smoking and vaping.

### Limitations

- Most studies on mental health and vaping are cross-sectional, meaning they capture a snapshot in time. They can show a link between vaping and mental health problems but can't prove which causes which. In fact, a [recent review](#) (2025) found a bi-directional association, suggesting vaping is a significant predictor for depression and depression is a significant predictor for vaping.
- Other factors like family environment, stress, or use of other substances may also affect mental health, and not all studies fully account for these.
- Studies usually rely on self-reported data and students might forget, underestimate, or overstate their vaping or mental health symptoms.
- Some studies, including the University of Sydney study, don't track students over time, so we don't know the long-term effects of vaping on mental health.

Young people who currently used e-cigarettes were about twice as likely to report moderate to severe symptoms of depression and anxiety.



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## Take-Home Message

Young people and adults with mental health challenges are more likely to vape, and vaping is linked to increased symptoms of depression, anxiety, stress, and other mental health problems. While we can't say vaping causes these issues, evidence shows that nicotine can make mental health worse over time, and quitting can improve it. TIS teams can play an important role by promoting messages that support people with mental health challenges to avoid or quit smoking and vaping. This could include partnering with your local social and emotional wellbeing team to share consistent, strengths-based information, support, and resources.

## Vaping & Physical Health

Research continues to show that vaping can harm the body, particularly the lungs and cardiovascular system. While long-term studies are limited, evidence from short-term studies and what we know about tobacco smoke suggests that vaping is not risk-free. We know that vape aerosol contains many of the same toxic chemicals found in cigarette smoke, including formaldehyde, acrolein, and heavy metals, which can damage the lungs, heart, and blood vessels. The most recent evidence shows the following:

- A large [US study](#) (2025) of more than 370,000 adults found that people who vape, whether currently or in the past, have a higher risk of developing peptic ulcer disease (PUD). PUD happens when painful sores (ulcers) form in the lining of the stomach or the upper small intestine. People who were currently using vapes had about 27% higher risk, and people who had used vapes in the past had about 13% higher risk of ulcers compared with people who never vaped. These results suggest that vaping may increase the risk of ulcers even after taking age, smoking, and medication use into account.
- A [review](#) of nine studies involving more than 423,000 pregnant women found that vaping during pregnancy was linked to a higher risk of babies being born:
  - Pre-term (about 40% higher risk)
  - Underweight (about 49% higher risk)
  - Small-for-gestational-age (about 32% higher risk)
- Most of the studies did not clearly separate women who only vaped from those who also smoked, so some risks may be due to smoking. However, the evidence suggests that vaping during pregnancy is not risk-free and may carry similar risks to smoking tobacco. The researchers recommend that health promotion efforts should clearly communicate these risks, provide culturally appropriate support to help pregnant women stop nicotine use. They also note that engaging women in the design of initiatives or policies that confront the commercial determinants of health will make them more effective and relevant for the women they aim to support.
- A [review](#) of 17 studies found that adults who currently use e-cigarettes have about 47% higher risk of developing [Chronic Obstructive Pulmonary Disease \(COPD\)](#), a serious lung disease, compared to people who never used them. People who used them in the past had 77% higher risk. Most studies were observational or cross-sectional studies and relied on self-reported diagnoses (people reported their own health conditions rather than having a medical test). Even so, the findings suggest that vaping poses serious risks to lung health. The researchers recommend that health professionals monitor lung function in people who vape and that public health messages clearly highlight the risks to lung health from vaping.

## Limitations

- As with mental health and vaping studies, most studies are cross-sectional making it difficult to know the extent to which vaping causes some of these health harms.
- Other factors, such as smoking, medication use and other health conditions, may influence health outcomes.
- Some studies combine people who vape or smoke, so it's not always clear whether the risks are due to vaping alone.
- Many studies rely on self-reported data, which can be inaccurate.
- Vaping products vary widely in nicotine levels, chemicals, and flavours, making it hard to generalize findings.

## Take Home Message for TIS Teams

The evidence around vaping continues to grow, and while many studies are still short-term, we are increasingly seeing that vaping carries risks similar to smoking (such as peptic ulcer disease). While we cannot always say vaping directly causes these problems, quitting has clear health benefits. TIS teams can play an important role by promoting messages that encourage people to avoid or quit vaping, sharing tailored messaging for priority populations such as pregnant women, and using trusted, evidence-based sources when talking about the health risks of vaping.

### Trusted Sources of Information

There is a lot of information around vaping risks and the health impacts of vapes and other nicotine products. To make sure the information is reliable, accurate, it's important to use trusted sources like:

- [Australian Government Department of Health](#)
- [Tobacco in Australia](#)
- [Lung Foundation Australia](#)
- [Cancer Institute NSW](#)
- [HealthDirect Australia](#)

You can also check out the "Facts about Vaping" page on the [TIS website](#) which has Aboriginal and Torres Strait Islander specific information, resources and factsheets.

**Adults who currently use e-cigarettes have about 47% higher risk of developing Chronic Obstructive Pulmonary Disease (COPD) compared to people who never used them.**

