

NSW E-cigarette Chemical Analysis Project

Summary Report

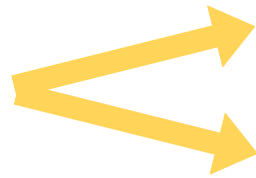
What?

NSW Health collaborated with the University of Wollongong to conduct the NSW e-cigarette analysis project. The project aimed to enhance understanding of e-cigarette devices ('vapes') available in NSW, and to inform future awareness campaigns and enforcement activities.

Methods

750

Vapes analysed for nicotine and other harmful substances



428

provided by NSW Health

322

collected from nine high schools across Sydney

Results

Of the 322 devices collected from schools, there were 22 models, 15 brands, and 97 flavours. Key findings include:



1. Of vapes contained high concentrations of nicotine.



2. Most vapes did not mention the word nicotine but **did** contain nicotine.



99.7%

3. Contained cooling agents.



3.7%

4. Contained substances banned by the TGA for use in e-cigarettes.



22.7%

5. Of vapes had been tampered with, possibly to refill or recharge.



89.9%

6. Of vapes used by students were fruit flavoured

Why does this matter?

1. Nicotine use in adolescence is associated with impaired brain development, affecting parts of the brain related to attention, learning, mood, and susceptibility to future addiction.
2. It is impossible for users to know what they are vaping.
3. Cooling agents may make inhaling high doses of nicotine easier which increases the risk of nicotine poisoning and dependence.
4. Banned substances included ethylene glycol, a harmful chemical used in anti-freeze and engine coolant.
5. Tampering with vapes increases the risk of nicotine poisoning and risk of burns as a result of devices exploding.
6. Vapes are designed to target children by using appealing flavours and product features. Fruit flavoured vapes are particularly common in schools.

References

1. Centre for Population Health, NSW E-Cigarette Analysis Project - Summary Report, 2023
2. Jenkins C, et, al. Chemical Analysis and Flavour Distribution of Electronic Cigarettes in Australian Schools. ChemRxiv, 2023

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Resources

School staff



Video: [Vaping and young people](#) - PDHPE curriculum resources to address vaping, NSW Department of Education



Website: [Vaping resources for teachers](#), Illawarra Shoalhaven LHD



Podcast: [The Research Files Episode 84: Empowering young people to prevent e-cigarette use](#), Teacher Magazine (ACER)

Students



Video: [Dr Karl's vape truths](#), Queensland Government



Website: [All about e-cigarettes](#), Your Room



Podcast: [E-cigarettes \(vaping\) and young people](#), RACGP and NSW Health

Parents



Video: [E-cigarettes and teens](#), The Royal Children's Hospital Melbourne



Website: [Electronic e-cigarettes and vaping: factsheet](#), Positive Choices



Podcast: [How to talk to teens about vaping](#), ABC

For more information



Website: [The Vaping Information Hub](#), Northern Sydney LHD

Website: [Do You Know What You're Vaping? Toolkit](#), NSW Health

Website: [The Unpacking Vaping in Schools Project](#), PERU

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