



Welcome to the Positive Choices Webinar Series

positivechoices.org.au



@pos_choices



@positivechoices1



Australian Government
Department of Health



THE UNIVERSITY OF
SYDNEY
Matilda Centre



Acknowledgement of country

I'd like to begin by acknowledging the Traditional Custodians of Country throughout Australia and their connections to land, water and community. I am currently on the land of the Gadigal people of the Eora Nation and pay my respects to Elders, past and present. I further acknowledge the Traditional Owners of the land on which you are and pay my respects to their Elders, past and present.

I would also like to acknowledge any Aboriginal and Torres Strait Islander people joining us for the webinar today.



Housekeeping

1 Listen only mode.

2 This webinar is being recorded and will be made available on the Positive Choices website.

3 We will have a Q&A session at the end of the webinar. Please add questions to the Q&A box available.



What is Positive Choices?



- Central access point for trustworthy, up-to-date drug and alcohol information and educational resources.
- Developed by the Matilda Centre in consultation with teachers, parents and students. Funded by Australian Government Department of Health.
- Learning resources, factsheets, videos, webinars and games to engage young people with drug education.
- Access to classroom-based drug prevention programs that are proven to reduced drug-related harms.



Teachers & Schools

Evidence-based teaching programs and activities, webinars for teachers, and resources for your students.



Parents & Families

Parenting advice and information to help you talk to your children about drugs and alcohol.



Students

Facts, advice and interactive tools to help you find out information about drugs and alcohol and make positive choices.



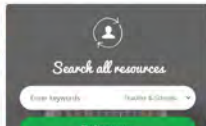
Culturally & Linguistically Diverse Peoples

Evidence-based drug education resources for individuals from culturally and linguistically diverse communities.



Aboriginal & Torres Strait Islander Peoples

A collection of culturally appropriate resources based on research and consultation with people from Aboriginal and Torres Strait Islander communities.





positivechoices.org.au

E-cigarettes and vaping in young people Where to from here?

Dr Emily Stockings, Senior Research Fellow at the Matilda Centre, University of Sydney

1st June 2022

We acknowledge the tradition of custodianship and law of the Country on which the University of Sydney campuses stand. We pay our respects to those who have cared and continue to care for Country.



THE UNIVERSITY OF
SYDNEY

—
Matilda Centre




E-cigarettes and vaping in young people – where to from here?

Dr Emily Stockings



THE UNIVERSITY OF
SYDNEY

—
Matilda Centre

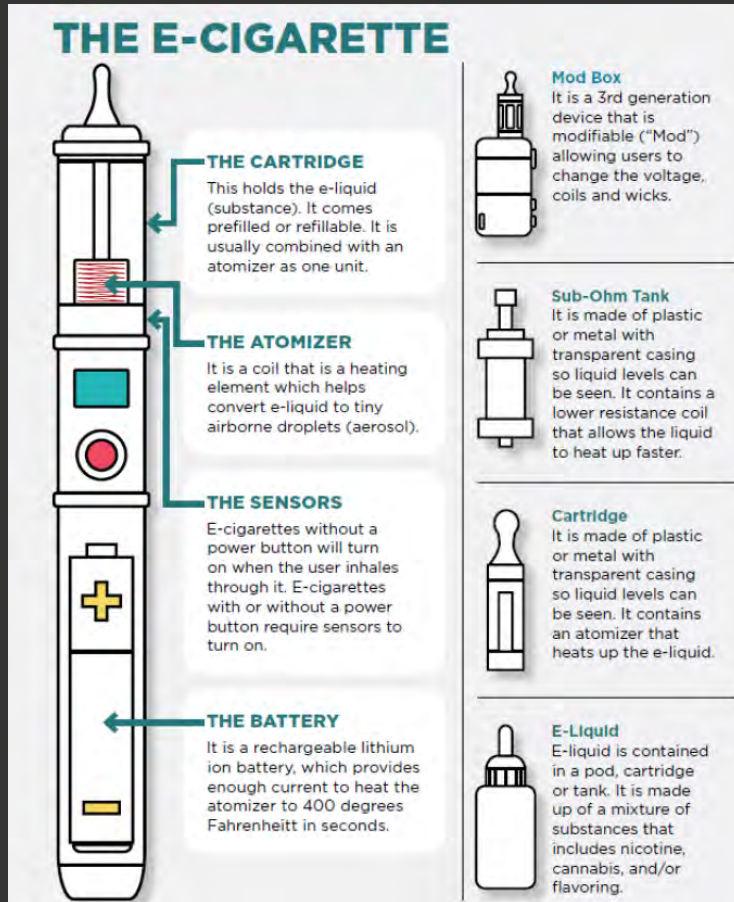


No conflicts to declare, no receipt of funding from tobacco or pharmaceutical companies

Webinar contents

1. Vapes, e-cigarettes, pods – what are they? What's in them?
2. E-cigarettes vs combustible cigarettes
3. How many young people use e-cigarettes?
4. E-cigarette regulations
5. What happens in the body + important safety info
6. Where to from here?
 1. Who's at risk
 2. How to support parents, teachers and school staff
 3. How to empower young people
7. Watch this space!
8. Ask Me Anything

1. E-cigarettes – what are they? What’s in them?

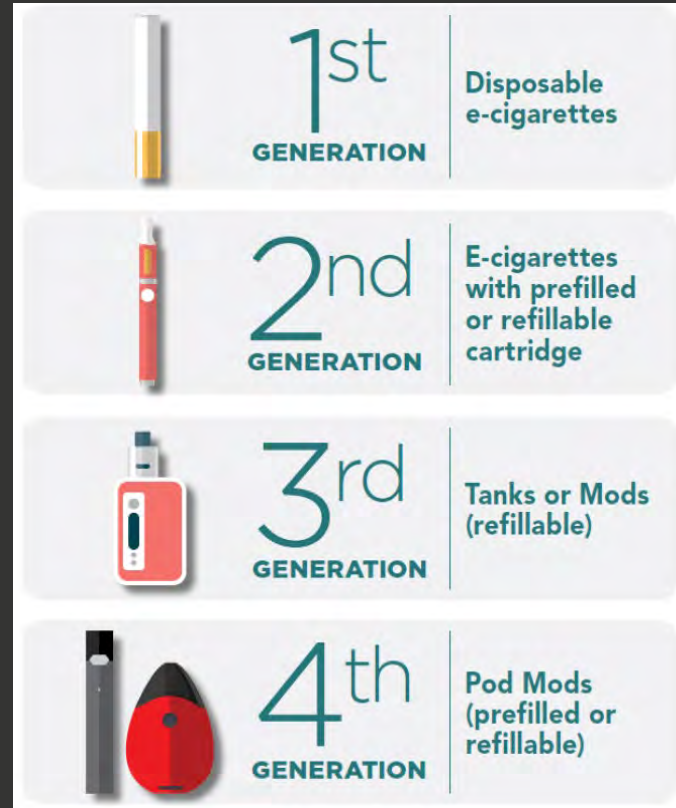


Mod Box
It is a 3rd generation device that is modifiable (“Mod”) allowing users to change the voltage, coils and wicks.

Sub-Ohm Tank
It is made of plastic or metal with transparent casing so liquid levels can be seen. It contains a lower resistance coil that allows the liquid to heat up faster.

Cartridge
It is made of plastic or metal with transparent casing so liquid levels can be seen. It contains an atomizer that heats up the e-liquid.

E-Liquid
E-liquid is contained in a pod, cartridge or tank. It is made up of a mixture of substances that includes nicotine, cannabis, and/or flavoring.



Find it :

<https://openresearch-repository.anu.edu.au/handle/1885/262914>


1. E-cigarettes – what are they? What’s in them?

In the e-liquid: nicotine, solvent carriers (propylene glycol), volatile organic compounds (toluene, phenols, xylenes, **ethyl acetate**, etc.), phenolic compounds, flavourings.

From the heated element: aldehydes (e.g. **formaldehyde**), free radicals

From the device: heavy metals, aluminium, arsenic, boron, cadmium, copper, iron, lead, nickel, potassium, etc.



Find it :
<https://openresearch-repository.anu.edu.au/handle/1885/262914>

2. E-cigarettes vs combustible cigarettes

~250 chemicals,
flavours, metals,
formaldehyde, ethyl
acetate, arsenic,
particulate matter

Produces aerosols

Contains nicotine:
0 to 100mg

Heats an e-liquid

Heats to 2-300°



7000 chemicals, tars,
carbon monoxide,
toxic gases and solid
particles

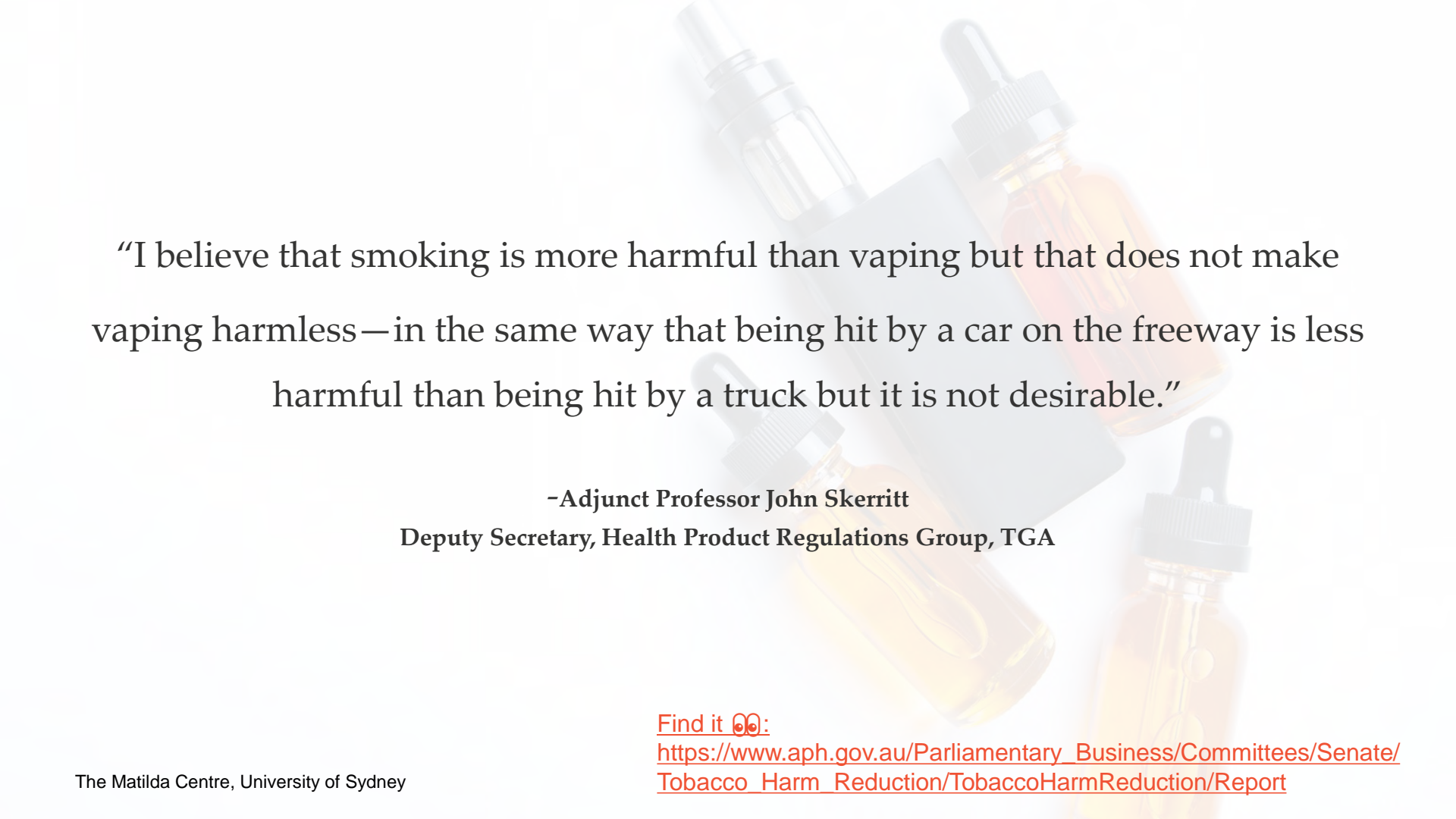
Produces smoke

Contains nicotine:
13 to 30mg

Burns tobacco

Burns at 600°





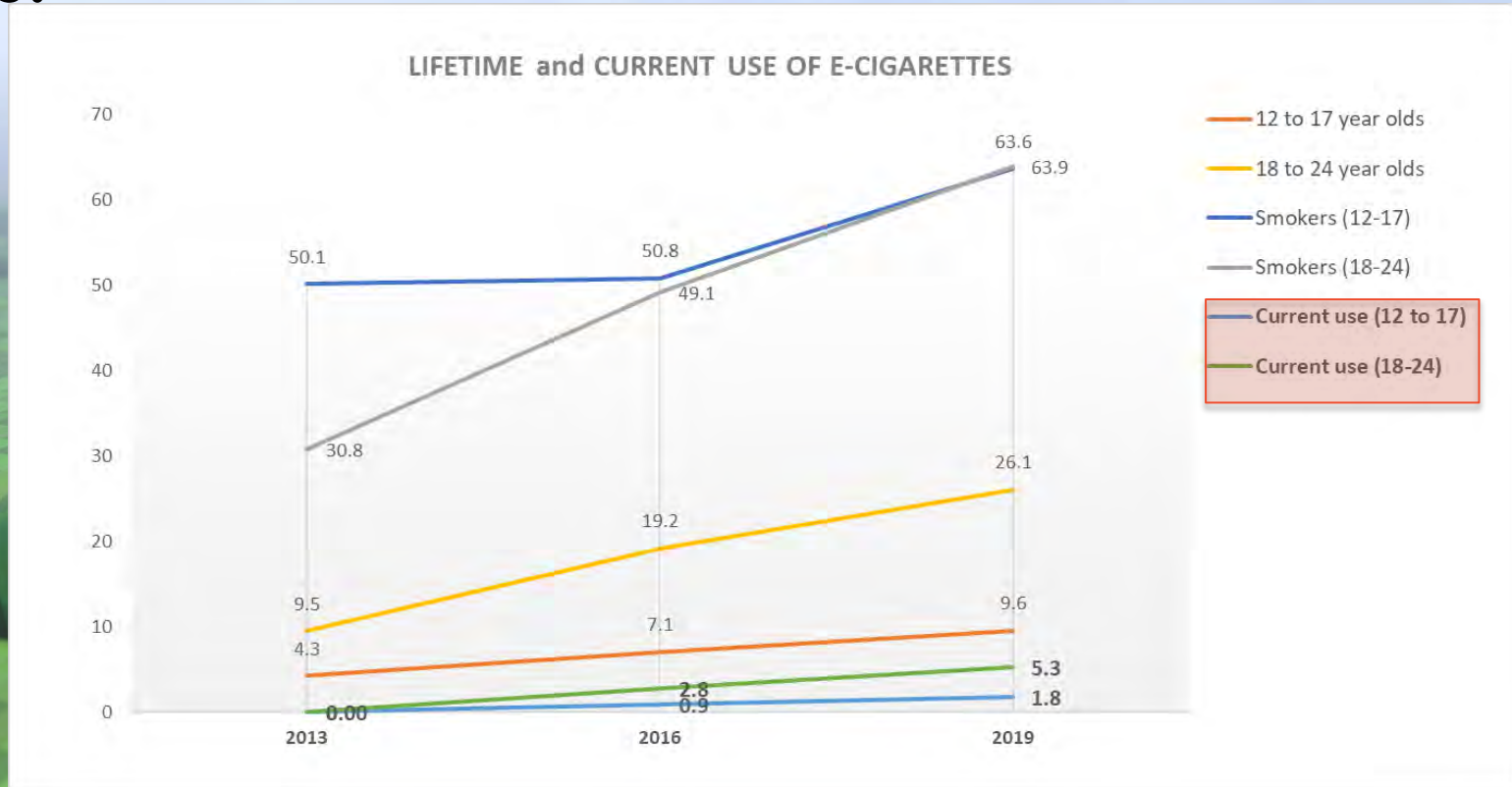
“I believe that smoking is more harmful than vaping but that does not make vaping harmless—in the same way that being hit by a car on the freeway is less harmful than being hit by a truck but it is not desirable.”

**-Adjunct Professor John Skerritt
Deputy Secretary, Health Product Regulations Group, TGA**

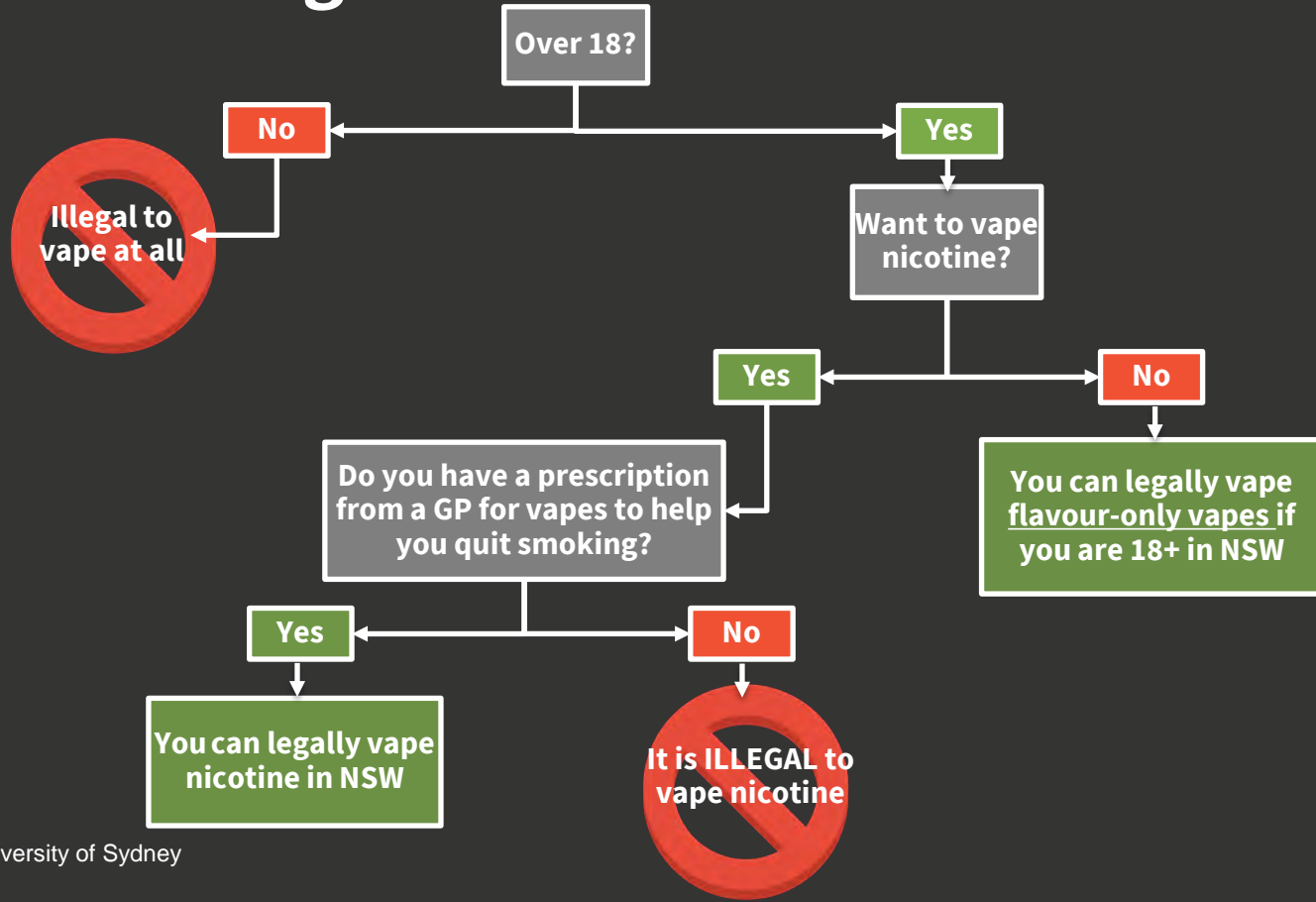
Find it :

https://www.aph.gov.au/Parliamentary_Business/Committees/Senate/Tobacco_Harm_Reduction/TobaccoHarmReduction/Report

3. What's the landscape? How many young people use e-cigarettes?



4. E-cigarette regulations



4. E-cigarette regulations

↓
Purchase from Australian pharmacy or import 3 months supply from overseas via websites.
Illegal to sell nicotine via any other local retailer

↓
Up to 100mg/mL (10%) nicotine concentration for e-liquid

↓
Flavours banned if they contain an ingredient known to pose health risk

You can legally vape nicotine in NSW when in possession of a prescription from a pharmacist

Use is banned in smoke-free places, including cars

↓
Can be sold in retail stores and online in all states and territories (except WA). No importation restrictions.

↓
Any flavours, no prohibitions
You can legally vape flavour-only vapes if you are 18+ in NSW
Use is banned in smoke-free places, including cars

4. E-cigarette regulations

- **Packaging and labelling:**

- If sold in Australia – ingredient list, nicotine concentration (mg/mL), warning statement and child-resistant packaging
- If purchased online or has no nicotine – no regulations

- **Advertising and promotion:**

- Nicotine e-cigarettes, like tobacco, cannot be advertised or promoted in Australia
- No restriction on advertising non-nicotine e-cigarettes, or limits to what young people see on social media

SHOPPING CART



100MG NICOTINE SALTS

Remove ×

Export Only Product

Volume: 250ml
Nicotine Strength: 100mg
Blend: Smooth

\$89.95

— 10 +

Total: \$899.50

Subtotal

\$899.50

Orders will be processed in NZD.

ORDER NOTES:

I confirm that I am 18 years or older


UNDER 18

OVER 18

AUSTRALIAN NICOTINE PRESCRIPTION

[CLICK HERE TO READ MORE](#)

DRAG & DROP OR UPLOAD YOUR
PRESCRIPTION
(OPTIONAL)

 CHECKOUT

[CONTINUE SHOPPING](#)

Clickety click





[Cart](#) > [Information](#) > [Shipping](#) > [Payment](#)



Contact	fakemail@fake.com	Change
Ship to	123 Pitt Street, Sydney NSW 2000, Australia	Change
Method	Aus Post Express · Free	Change

Payment

All transactions are secure and encrypted.

 Credit card VISA 

After clicking "Complete order", you will be redirected to Credit card to complete your purchase securely.



10mg Nicotine Salts
250ml / 100mg / Smooth

\$899.50

Apply

Subtotal \$899.50
Shipping Free

Total NZD \$899.50
Including \$81.77 in taxes

DO I NEED TO UPLOAD A PRESCRIPTION?

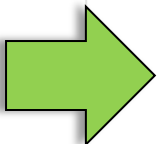


Nope.

Seriously, you do not need to send us a copy of your prescription.

The **TGA** **recommends** a copy of your prescription to be enclosed with the package the product is sent in, but this is **not** a requirement.

IS IT A CERTAINTY THAT THE ABF WILL STOP MY VAPEMAIL AT THE BORDER?



Absolutely not. From a logistics standpoint, there is no mechanism or legal requirement to include physical or digital prescriptions with any shipment into Australia under the Personal Importation Scheme.

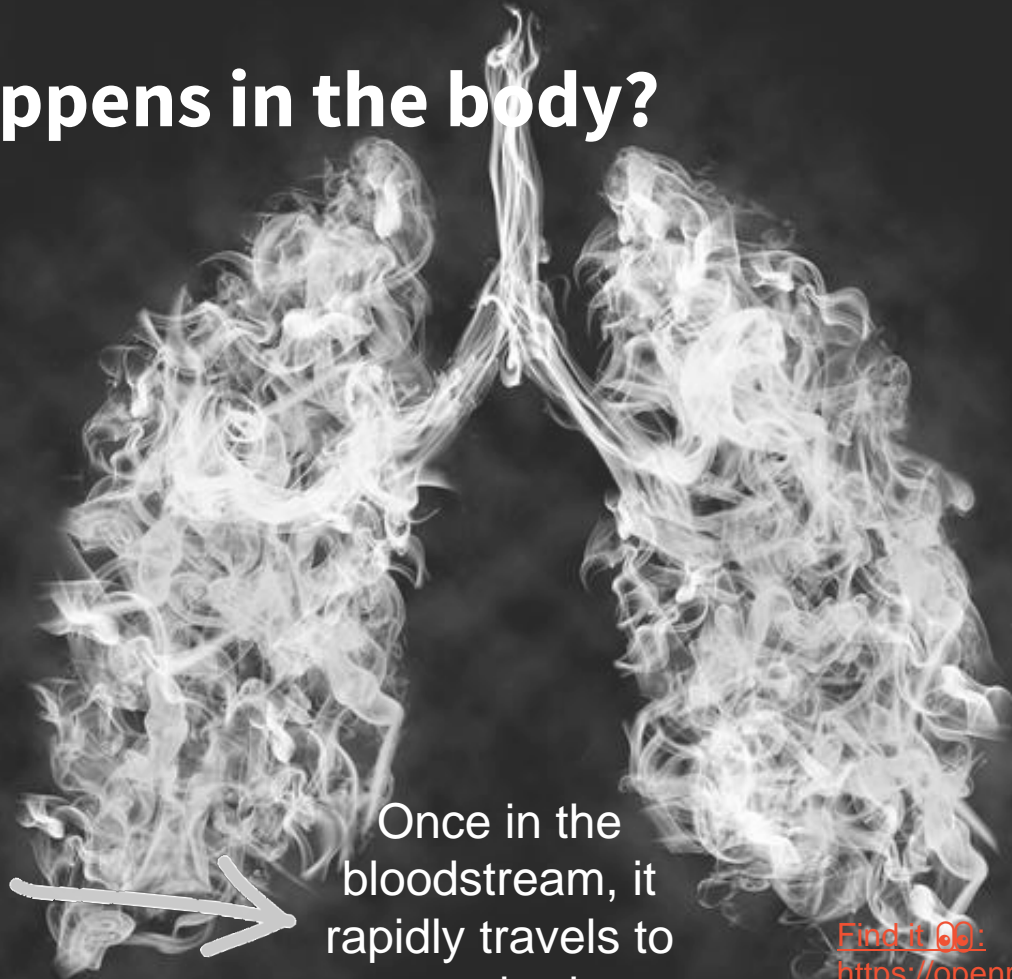
As such, there is no way for any authority to automatically know if a prescription is enclosed in a package unless they pay somebody to physically open the package, read the prescription, take the time to match the prescription with the e-liquids inside... for tens of thousands of packages coming into the country **every. single. day.**

5. What happens in the body?

Vape juice is heated, vapourised, then inhaled



It hits the lungs first, and that's how it enters the bloodstream



Once in the bloodstream, it rapidly travels to your brain

5a. What happens in the lungs?

Particulate matter may be deposited into the lung tissue




These can form “globs” like pneumonia



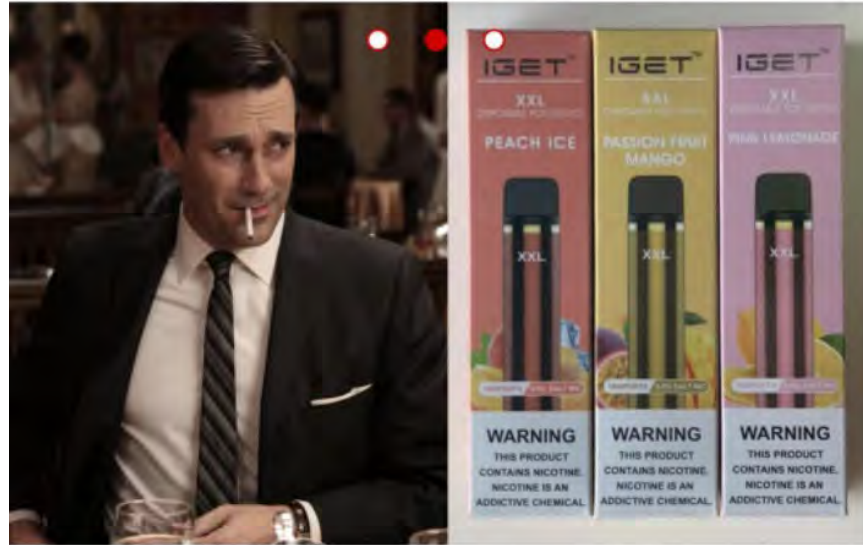
Can lead to **EVALI**:

- Shortness of breath, cough, chest pain
- Gastrointestinal upset
- Non-specific (e.g. fatigue)

Find it :

<https://openresearch-repository.anu.edu.au/handle/1885/262914>

Is everyone going to be addicted to nicotine and then smoke?

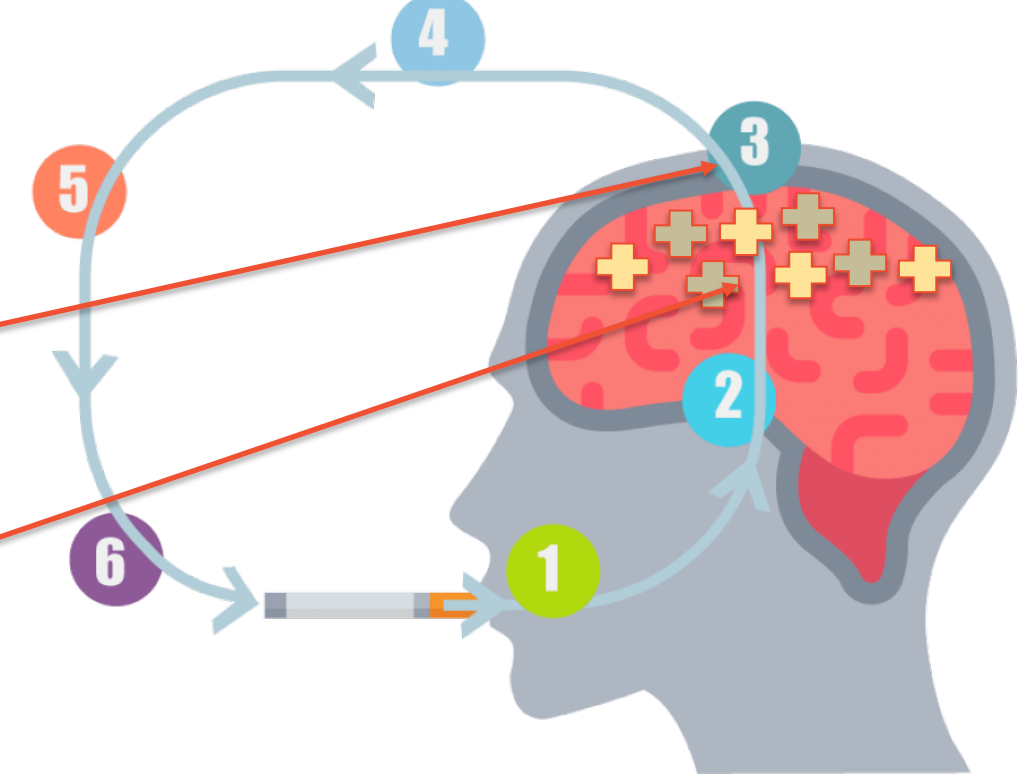


Western Culture Makes Seamless Transition Back To Everyone Being Addicted To Nicotine Again

5b. What happens in the brain?

Nicotine mimics acetylcholine, increasing signalling of this neurotransmitter in the brain

The brain compensates by reducing the number of acetylcholine receptors, so **more nicotine is needed to achieve the same response**



- 1 Nicotine delivered by smoking
- 2 Nicotine travels to the brain
- 3 Nicotine activates nicotinic receptors which stimulates the release of Dopamine

- 4 Dopamine released, leading to pleasant feelings of calmness and reward
- 5 Dopamine levels reduce, leading to withdrawal symptoms of stress and anxiety
- 6 Withdrawal triggers desire for another cigarette

5b. What happens in the brain?

The adolescent brain is **particularly vulnerable** to the effects of nicotine – early exposure can change brain development

Early nicotine exposure can “**wire**” your brain to be more addicted to nicotine, as well as:

- Increased risk comorbid substance use, other addictions
- Memory impairments
- Anxiety, depression and other mental disorders

5c. E-cigarettes and smoking

- **Is the reduction in smoking uptake being offset by vaping uptake?**
 - Most likely no, these behaviours appear to be distinct
- **Will young people who vape start smoking because they crave nicotine?**
 - Initial evidence suggested a 2-3 fold increase in smoking after vaping, but this is likely explained by shared genetic and personality risk factors (e.g. sensation seeking)

5d. Important things to know about e-cigarettes and safety



Nicotine is a poison! Ingestion can be fatal

Devices can leak, get hot, and even explode.

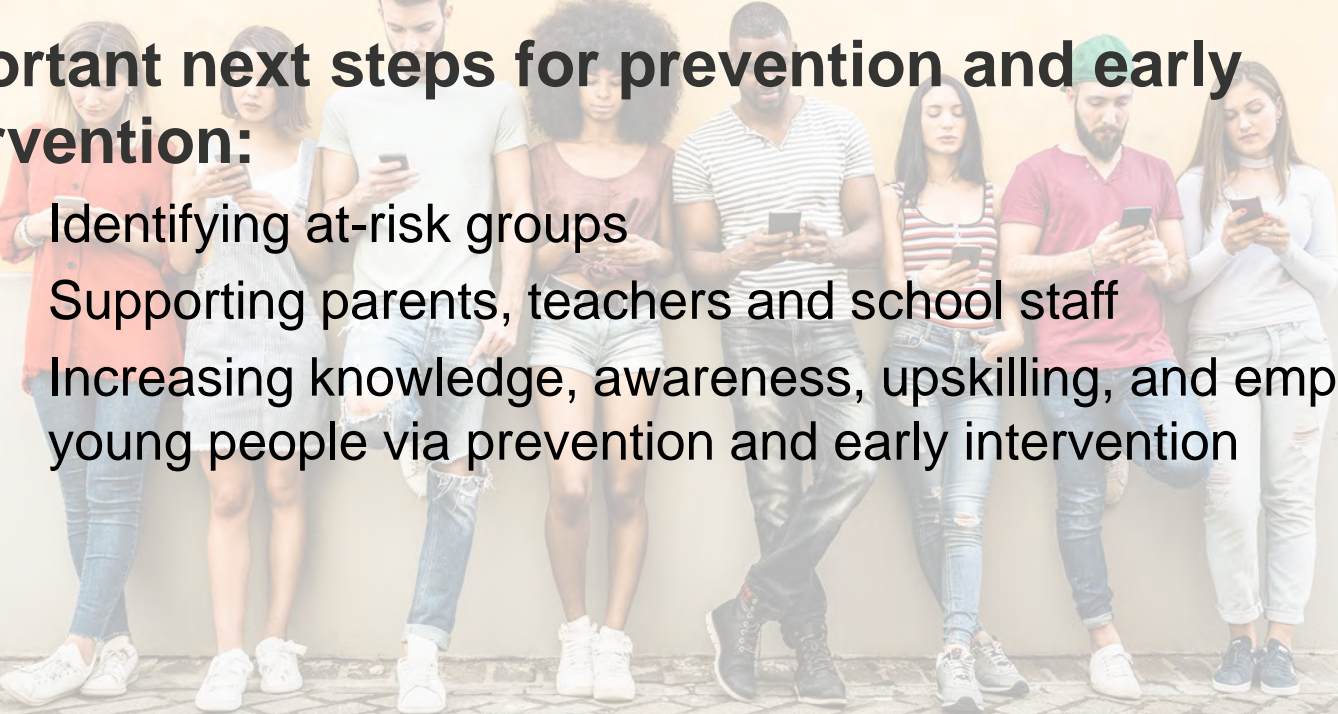
Mislabeled or unknown ingredients

Most likely contain nicotine, even if they say they don't

Passive vaping can be harmful, but much less so than passive smoking

6. Where to from here?

- **Best defence is self-defence!**
- **Important next steps for prevention and early intervention:**
 - a) Identifying at-risk groups
 - b) Supporting parents, teachers and school staff
 - c) Increasing knowledge, awareness, upskilling, and empowering young people via prevention and early intervention



6a. Identifying at-risk groups

- **Gender:** Boys significantly more likely to try e-cigarettes
- **School performance:** Lower school performance, being out of school, at a disadvantaged school = higher use
- **Age:** Increases with advancing adolescence/early adulthood
- **Economic status:** In employment and higher SES = lower use
- **Tobacco related factors:** Smoking experimentation, friends who smoke, household smoker, etc. = higher risk

6b. Supporting parents, teachers and school staff

- Training and education – know the facts
 - Do you know what they're vaping? Find out more from a frank, non judgemental, fact-driven conversation
 - **NSW Health –**
<https://www.health.nsw.gov.au/tobacco/parents.aspx>
 - **NZ Health -**
<https://www.hpa.org.nz/programme/e-cigarettes/vaping>
- Schools – Can be incorporated into AOD curricula

FOR PARENTS AND CARERS




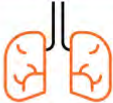


THE FACTS ABOUT VAPING

Electronic cigarettes or e-cigarettes, often called 'vapes', are electronic devices designed to deliver vapourised liquids into the lungs. There are many different styles of vapes available and they can be difficult to spot.

The main ingredient in vapes is propylene glycol, vegetable glycerine or glycerol, and they often also contain nicotine, flavours and other chemicals. Vapes may contain harmful chemicals that aren't listed on the pack.

The biggest misunderstanding about vapes is that they are harmless compared to cigarettes. This is not true. **Vapes are not safe.**


DO YOU KNOW WHAT THEY'RE VAPING?

 <p>Many vapes contain nicotine making them very addictive</p>	 <p>The nicotine in 1 vape can =50 cigarettes</p>	 <p>Young people who vape are 3 times as likely to take up smoking</p>
 <p>Vaping has been linked to serious lung disease</p>	 <p>Vapes can contain the same harmful chemicals found in cleaning products, nail polish remover, weed killer and bug spray</p>	 <p>Vapes come in a variety of designs and styles and can be easy to conceal</p>

NSW GOVERNMENT

Do you know what they're vaping? Get the evidence* and facts at [health.nsw.gov.au/vaping](https://www.health.nsw.gov.au/vaping)

*All statements are backed by evidence which can be found on the website



6b. Supporting parents, teachers and school staff

- Positive choices portal:

<https://positivechoices.org.au/parents/electronic-cigarettes-and-vaping-factsheet>



The screenshot displays the Positive Choices website interface. At the top left is the logo for 'Positive Choices Drug and Alcohol Information' with the tagline 'Get informed, stay smart, stay safe'. To the right are navigation links for 'Drugs A to Z', 'About us', and a 'Get support' button. A search bar is located below these links. A horizontal menu contains categories: 'Teachers & Schools', 'Parents & Families', 'Students', 'Culturally & Linguistically Diverse Peoples', and 'Aboriginal & Torres Strait Islander Peoples'. The main content area features a dark blue header with 'Drugs A to Z' and 'Electronic Cigarettes and Vaping: Factsheet'. Below this is a breadcrumb trail: 'Home > Parents > Electronic Cigarettes and Vaping: Factsheet'. A grid of six icons represents different types of vaping devices. To the right, the 'Other names' section lists 'E-cigarette, e-cigs, vaping, vape, vape pens, pods, Juul, electronic nicotine delivery systems (ENDS), puff bars, and e-hookahs'. The 'What are e-cigarettes?' section explains that e-cigarettes are battery-operated devices that heat e-liquids to create vapour. It also notes that e-liquids can contain nicotine, which is also found in traditional cigarettes and tobacco products. The page includes a 'Bronze' award badge and a 'This resource is for... (click to expand)' dropdown menu.

6b. Supporting parents, teachers and school staff

- **Start a conversation:**

1. **Make sure you are confident with the facts** (previous slide)

2. **Find the moment:**

- See someone vaping, walk past a shop, hear/read about it in news/social media, [in schools] caught vaping or with vapes/juice.

3. **Have a conversation:**

- Use open ended questions, show interest, let them talk, express in their words
- What do you enjoy about vaping? How does it make you feel?
- [if about anxiety, nervousness, low mood etc] What do you wish was different? How can I help you when you feel this way?
- <https://developingminds.net.au/blog/2017/7/6/useful-questions-to-ask-sadworriedmad-kids-and-teens>

6b. Supporting parents, teachers and school staff

- **Start a conversation:**

- 1. Listen with patience**

- What do you enjoy about vaping? How does it make you feel? How can you meet those needs in other ways

- 2. Convey expectations**

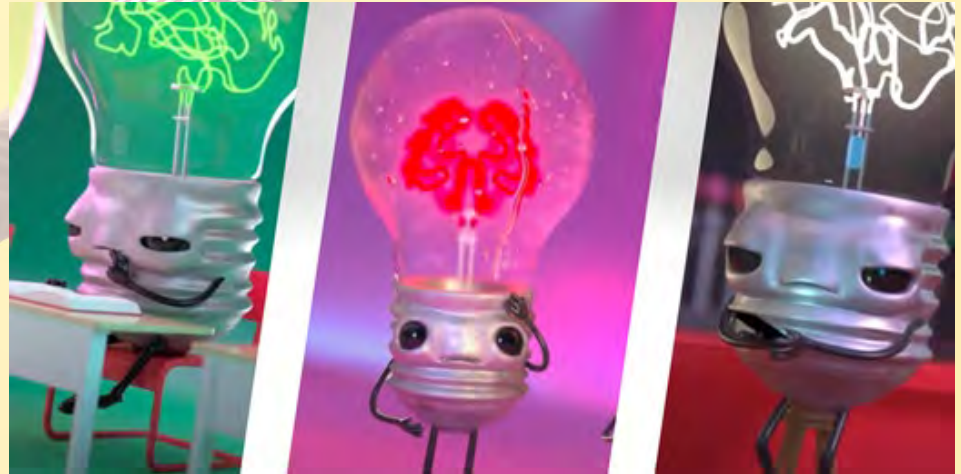
- Why you don't want them to vape, why you are concerned about the risks for their brain, their lungs, their future wellbeing

6c. Upskilling and empowering young people

- **School-based prevention approaches:**
 - Incorporate Theory of Planned Behaviour and behavioural intentions:
 - **attitudes** (what's good and bad about vaping)
 - **subjective norms** (social influences on the behaviour)
 - perceived **behavioural control** and **self-efficacy**
- **Personalised**
 - Narrative that is engaging, anecdotes, targeted
- **Rewards to motivate quitting/prevent uptake**
 - Achievable and specific targets for reduction, pair with a friend
- **Different formats**
 - Group, 1:1, during and outside school, mobile apps
- **Not delivered by parents or teachers!!**

7. Watch this space

- *Our Futures* Vaping Module – in development
- Respect Your Brain campaign – in development
- Department of Education activities





Ask Me Anything!

Thank you

Emily Stockings

Program Lead, Smoking, Vaping and
Mental Health

The Matilda Centre, University of Sydney

emily.stockings@sydney.edu.au

<https://www.sydney.edu.au/matilda-centre/>



THE UNIVERSITY OF
SYDNEY

—
Matilda Centre

Useful resources

(Click to follow links)

- [Positive Choices Portal](#)
- [NSW Health Vaping campaign](#)
- [NZ Health vaping facts](#)
- [Review of health effects of vaping](#)
- [Senate Select Hearing on Tobacco Harm Reduction](#)
- [Therapeutic Goods Administration regulations on nicotine](#)
- [Fines and enforcement](#)



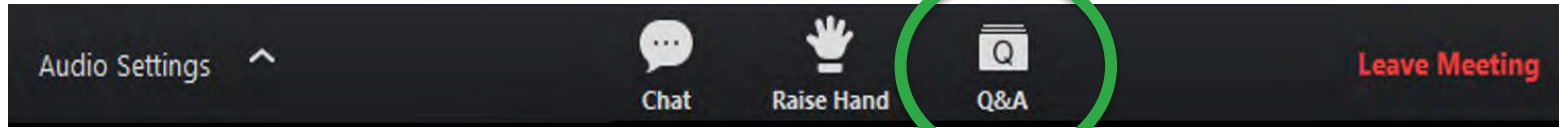
THE UNIVERSITY OF
SYDNEY

—
Matilda Centre



positivechoices.org.au

Questions?





Thank You

info@positivechoices.org.au
positivechoices.org.au



@pos_choices



@positivechoices1



Australian Government
Department of Health



THE UNIVERSITY OF
SYDNEY
—
Matilda Centre