



HEART AND STROKE FOUNDATION: E-CIGARETTES IN CANADA

Governments need to regulate e-cigarettes to protect Canadians against possible harms and to commission further research to determine potential cessation benefits.

PROBLEM

Electronic nicotine delivery systems, e-cigarettes or electronic cigarettes are a relatively new product category, which first emerged in 2004. E-cigarettes have been growing in use and are a source of great debate among public health advocates and the media. As with most unregulated novel products, Canadians are interested in knowing more about the associated implications, including the potential health consequences and benefits. The Heart and Stroke Foundation believes that Canadians deserve accurate information to make knowledgeable decisions, and government policies to protect them against possible harms and to maximize any potential benefits related to e-cigarette use in Canada.

FACTS

- E-cigarettes are battery-operated vaping devices, which mimic the smoking experience using an inhalation and heating process that vapourizes an internal fluid. The liquid solution varies in composition but is usually propylene or vegetable glycol based and can be combined with other ingredients and flavours.
- E-cigarettes are available with or without nicotine. However, e-cigarettes containing nicotine are not legally manufactured, sold or imported in Canada, but are available, albeit illegally.
- While early studies show some potential benefits, the effectiveness of e-cigarettes with nicotine as a smoking cessation device is not fully conclusive.^{1,2}
- Safety concerns have arisen with these unregulated products, given that the long-term health impact of inhaling propylene or vegetable glycol and the effects of second-hand exposure are unknown.

- Researchers and public health experts are concerned that there is potential for e-cigarettes to be a gateway to tobacco use and nicotine addiction.
- Marketing and promotion of e-cigarettes is common. Youth are targeted with the addition of attractive candy or fruit flavours.
- Public health experts are concerned about emerging research showing that e-cigarettes could renormalize and undermine tobacco control and smoking cessation efforts.
- E-cigarettes are appealing to youth. A Canadian study found that 18% of high school student non-tobacco smokers had tried e-cigarettes and another 31% are interested in trying them.³

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BACKGROUND

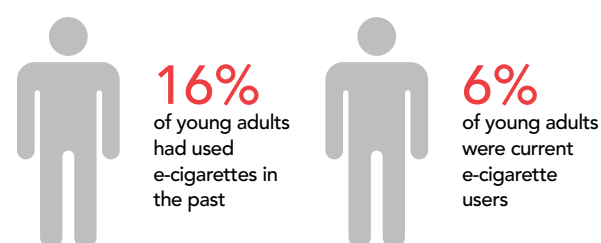
E-cigarettes are battery-operated devices, which mimic the smoking experience using an inhalation process that vapourizes an internal fluid. This is sometimes referred to as “vaping.” These non-combustible products most often do not include tobacco. The contained liquid solution varies in composition but is usually propylene or vegetable glycol based and can be combined with other ingredients and flavours. E-cigarettes are available with or without nicotine. However, e-cigarettes containing nicotine are not legally manufactured, sold or imported in Canada. *Canada’s Food and Drugs Act* requires that product approval be granted by Health Canada for all products containing nicotine available for use in Canada and at the present, no company has received product approval. However, e-cigarettes containing nicotine and liquid nicotine in e-liquid (or e-juice as it’s commonly called), are often available online or in retail outlets in Canada. While this is illegal, enforcement is limited.

No formal safety requirements exist regarding e-cigarette product development, ingredient disclosure, information on nicotine levels and risk of use. In some instances, testing has shown e-cigarette products labelled as nicotine-free do in fact contain nicotine. Because e-cigarettes are a relatively new product, there is a lack of research on the long-term health impacts of inhaling propylene glycol or other ingredients in e-cigarettes as well as the health consequences from second-hand exposure. Knowledge about the long-term effects of e-cigarette nicotine addiction is also limited however; nicotine is classified as a poison.

Early research studies have demonstrated some potential cessation benefits of e-cigarettes with nicotine. Some smokers, researchers and clinicians cite that the simulated smoking experience, the ability to control nicotine level intake and the resemblance to a traditional cigarette are useful in cessation attempts from physiological and psychological perspectives. As a harm reduction approach, some believe that e-cigarettes are a safer alternative to traditional tobacco cigarettes given that users satisfy their craving and addiction for nicotine without the dangerous effects of tobacco. However, recent scientific reviews summarizing the research on e-cigarettes state that findings are inconclusive, and there is not enough evidence to fully prove the effectiveness of e-cigarettes as a cessation device.^{1,2} In particular, while some research shows e-cigarettes to be useful in quit attempts, other studies show that smokers are unsatisfied with the new devices and return to smoking tobacco cigarettes or maintain dual use of e-cigarettes and conventional cigarettes. Experts agree that complete tobacco cessation over the long term, rather than reducing the number of cigarettes smoked per day, is the most effective way to reduce risk for disease and premature death.⁴

In Canada, it is illegal to make a health claim regarding an e-cigarette product’s ability to aid in smoking cessation or to suggest that it is a safer alternative to smoking traditional tobacco cigarettes. However, lifestyle marketing is common and often depicts cheerful and glamorous smokers taking back their right to smoke in public – representing e-cigarettes as a socially acceptable product free of stigmatization and guilt. This is concerning because in effect, e-cigarettes are being marketed in a way that could undermine the hard fought change in social norms related to tobacco use, thus undermining progress in tobacco control. Celebrity e-cigarette endorsements are common and celebrities are often shown using e-cigarettes in entertainment programs, which act as a form of indirect endorsements. Increasing globalization and digital media mean that Canadians can be exposed to e-cigarette marketing from countries where regulations are more lax. Marketing and promotion also target youth through the addition of attractive flavours like Hawaiian punch, bubble-gum and chocolate.

FROM A 2012 SURVEY OF CANADIANS



Sales of e-cigarettes are growing rapidly in Canada and across the globe. The tobacco industry has begun investing hundreds of millions of dollars into e-cigarette product development and marketing.⁵ Worldwide sales are estimated to reach \$3 billion by 2015 with more than 460 brands in the marketplace at the present.⁶ Precise usage is difficult to determine because population health monitoring tools have not yet included e-cigarette use. Various research studies have shown that users come from a variety of groups including children and youth, current-smokers as well as non-smokers. In an international study, it was estimated that 3 per cent of Canadian adults⁵ were current users and 8 per cent have tried e-cigarettes.⁷ A Canadian investigation into e-cigarette use among youth and young adults found that 16 per cent of young adults had used e-cigarettes in the past and 6 per cent were current users.⁸ A similar study found that 18 per cent of Quebec non-tobacco smoking high school students had tried e-cigarettes and another 31 per cent were interested in trying them.³ Similar results have been found in US studies, indicating that non-tobacco users are experimenting with e-cigarettes.

There is concern that those who do not smoke tobacco cigarettes, but have started to smoke e-cigarettes with nicotine could potentially form a lifelong addiction to nicotine. In this scenario, e-cigarettes could serve as a gateway for nicotine addiction and tobacco use. There are also concerns that former smokers who use e-cigarettes might become accustomed to the nicotine intake and habit of smoking and return to smoking traditional tobacco cigarettes in the future.

While many in the public health community recognize the potential cessation and harm reduction benefits of e-cigarettes, there is still concern about the product’s long term safety and gateway potential for a new generation of tobacco and nicotine users. There is also growing fear that e-cigarettes could renormalize smoking, and those with nicotine could promote dual usage and perpetuate nicotine addiction instead of encouraging full cessation, thus undermining tobacco control efforts. E-cigarette use in public places has the potential to renormalize smoking and serve as a type of marketing and promotion for the products. In light of the need to maintain tobacco control efforts and given the many unknowns around e-cigarette use, there has been growing demand for regulation in Canada and internationally. Municipal, regional and national governments around the world have proposed and implemented policies to regulate e-cigarettes with or without nicotine in a similar fashion as tobacco products, including amendments to smoking acts, complete bans (Brazil, Panama, Australia, and Israel among others) public space bans (Red Deer AB, Hantsport NS, Innisfil ON, Toronto ON, New Jersey, North Dakota, Utah, Boston, Chicago, Indianapolis, Los Angeles and New York among others), age purchasing restrictions (California, Hawaii, Idaho, New Jersey, New York, Tennessee, Utah, France and the UK among many others), as well as marketing and promotion restrictions.



CANADIAN SOLUTIONS

The Heart and Stroke Foundation recommends that federal, provincial and municipal governments immediately adopt the following policies, for all e-cigarettes where jurisdictionally appropriate:

- **Prohibit use of e-cigarettes in public spaces** and workplaces where smoking is banned by law.
- **Prohibit e-cigarette sales in locations where tobacco sales are banned.**
- **Prohibit e-cigarette sales to minors** (18 or 19 years of age, depending on the minimum tobacco age in the province) as well as banning use of e-cigarettes on elementary and secondary school property.
- **Strictly regulate e-cigarette advertising and promotion**, including prohibiting celebrity and lifestyle marketing, unsubstantiated health claims, retail promotion, youth targeted marketing and the co-branding of e-cigarettes with conventional cigarette brands.
- **Regulate the product**, including restricting flavours attractive to youth, and requiring that e-cigarettes be visually distinct from regular cigarettes. The latter is important in order to prevent renormalization and confusion with tobacco cigarettes among youth. In particular, e-cigarettes should not include filters, glowing tips or be the same colour/ shape/dimensions as a traditional tobacco cigarette.
- **Approve e-cigarette nicotine products on a case by case basis**, and oversee the development of labelling requirements. Restrict access by only allowing via prescription at the outset.
- **Actively enforce the existing ban on e-cigarettes with nicotine** to prevent illegal/non-approved nicotine based e-cigarette products from being available in Canada. The federal government, through Health Canada should apply penalties to retailers who supply illegal products and supplies to the Canadian market and deter others from making such products available.
- **Dedicate research funding** to enable a deeper understanding of the usage, potential benefits of e-cigarettes as a cessation device as well as their possible risks, including safety, gateway to addiction potential and renormalization.

CONCLUSION

Taking into account the potential threat of renormalization, gateway to addiction and health risks, as well as the need for more information regarding the potential cessation benefits of e-cigarettes, it is critical that governments move quickly to regulate all e-cigarettes and commission further research.

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The information contained in this statement is current as of SEPTEMBER 2014

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