



**CANADIAN SOCIETY OF RESPIRATORY THERAPISTS**  
**SOCIÉTÉ CANADIENNE DES THÉRAPEUTES RESPIRATOIRES**

## **CSRT Position Statement**

### **The Use of Electronic Cigarettes**

#### **Position**

The Canadian Society of Respiratory Therapists (CSRT) calls for immediate action to eliminate the availability and the use of electronic cigarette as a smoking cessation tool as there is no conclusive evidence available as to the safety and efficacy of these products as well as insufficient regulations governing the electronic cigarette industry.

#### **Recommendations**

The CSRT calls for more research into the safety and effectiveness of electronic cigarettes as smoking cessation aids.

The CSRT recommends increased regulation of the electronic cigarette industry. At a minimum, electronic cigarettes and liquids should be held to the same production, labelling, marketing, sales and usage standards as conventional cigarettes. Specifically, regulation of each should:

- Specify standards for production of electronic cigarettes and liquids
- Specify standards for the labelling of electronic cigarettes and liquids
- Specify standards for the marketing and sales of electronic cigarettes and liquids.
  - This regulation should include visible messages educating the public on health hazards associated with electronic cigarette and liquid use, and information regarding any claims as to their use as effective smoking cessation devices.
- Protect smoke-free areas by prohibiting the use of electronic cigarette in designated non-smoking areas.

The CSRT recommends regulation as a means of supporting reliable, reproducible research into the effects of electronic cigarette use, including but not limited to health effects of long term use, effects of second hand exposure and their effectiveness as smoking cessation devices.

## **Rationale**

Electronic cigarettes have grown in popularity in recent years. Non-nicotine containing electronic cigarettes that do not make smoking cessation claims are currently legal for sale in Canada [1]. Electronic cigarette liquid that contains nicotine has not been approved for sale in Canada [1], although nicotine-containing liquids are available to the Canadian consumer.

Despite the lack of unbiased and evidence-based research regarding electronic cigarettes as smoking cessation devices, some users adopt these devices as smoking cessation aids or use them in place of conventional cigarettes [1]. Users may also adopt them with the intent of reducing their exposure to the addictive and/or harmful chemicals contained in conventional cigarettes [2].

Recent evidence suggests that electronic cigarettes may impede cessation of conventional cigarette use [3, 4], induce a desire to use conventional cigarettes in adults with a cigarette smoking history [5] and produce intent to use conventional cigarettes in non-smoking youth [6].

Although electronic cigarettes deliver lower levels of certain toxins when compared to conventional cigarettes, inhaled and exhaled vapors can contain known respiratory irritants [7] and chemicals with a known negative biologic effect [4]. It is important to note that the long-term effect of exposure to these substances from electronic cigarettes remains unknown [4].

Electronic cigarettes also produce respirable particulate matter in the range compared to conventional cigarettes [8]. (Respirable particulate matter is associated with cardiorespiratory disease.)

Until reliable independent research confirms electronic cigarettes as either a safe smoking cessation tool or safe alternative to conventional cigarette use, the CSRT does not support its usage and strives to protect the health and safety of the public. The CSRT strongly advocates for the use of smoking cessation aids that have been proven to be effective through evidence-based research.

Electronic cigarettes lack a regulatory framework to ensure the safety for users and those in the vicinity of users. This has resulted in highly variable concentrations of nicotine and other components in the e-liquids used in electronic cigarettes, and in the resulting vapors [9].

There is a wide variety of vaporizing devices on the market [4]. The design of these devices coupled with user inhalation pattern may impact the delivery of chemicals to the user and those in the vicinity of their use [10].

The lack of regulation in e-cigarette liquid composition and in vaporizer design hinders the completion of reliable research into these devices [9]. The large inconsistency in e-liquid

contents, vaporizer function and design, and the development of new generations of electronic cigarettes, make it difficult to generalize the results from research to practice [4]. This variability must be taken into consideration during the regulation and implementation of these devices.

### **About the CSRT**

The CSRT is the national professional association representing over 3,800 respiratory therapists across Canada. The CSRT is also the credentialing agency for respiratory therapists who practice in non-regulated jurisdictions, administers the accreditation process for respiratory therapy education programs and promotes the respiratory therapy profession at the national and international level.

***Approved by the CSRT Board of Directors on April 8, 2016***

### **Citations**

- [1] Propel Centre for Population Health Impact, "Tobacco Use in Canada: Patterns and Trends, Special Supplement: E-cigarettes in Canada," University of Waterloo, Waterloo, 2015.
- [2] K. Choi and J. L. Forster, "Beliefs and experimentation with electronic cigarettes: a prospective analysis among young adults," *Am J Prev Med*, vol. 46, pp. 175-178, 2014.
- [3] S. E. Adkison, R. J. O'Connor, M. Bansal-Travers, A. Hyland, R. Borland, K. M. Cummings, H. H. Yong, A. McNeill, J. F. Thrasher, D. Hammond and G. T. Fong, "Electronic nicotine delivery systems: international tobacco control four-country," *Am J Prev Med*, vol. 44, pp. 207-215, 2013.
- [4] R. Grana, N. Benowitz and S. A. Glantz, "E-cigarettes: A Scientific Review," *Circulation*, vol. 129, pp. 1972-1986, 2014.
- [5] A. E. Kim, Y. O. Lee, P. Shafer, J. Nonnemaker and O. Makarenko, *Adult smokers' receptivity to a television advert for electronic nicotine delivery systems*, 2013.

- [6] R. E. Bunnell, I. T. Agaku, R. A. Arrazola, B. J. Apelberg, R. S. Caraballo, C. G. Corey, B. N. Coleman, S. R. Dube and B. A. King , "Intentions to smoke among never-smoking US middle and high school electronic cigarette users, National Tobacco Youth Survey 2011-2013," *Nicotine and Tobacco Research*, pp. 1-8, 2014.
- [7] Sciencelab.com, Inc. , *Material Safety Data Sheet: Propylene glycol*, Houston, TX: Sciencelabs.com, 2013.
- [8] F. C. Fuoco, G. Buonanno, L. Stabile and P. Vigo, "Influential parameters on particle concentration and size distribution in the mainstream of e-cigarettes," *Environ Pollut*, vol. 184, pp. 523-529, 2014.
- [9] Groupe TVA, inc., "La cigarette electronique: parties 1-3," 2016.
- [10] M. Williams and P. Talbot, "Variability among electronic cigarettes in the pressure drop, airflow rate, and aerosol production," *Nicotine and Tobacco Research*, vol. 13, pp. 1276-1283, 2011.
- [11] M. Moore, *E-cigarettes: The Issues (webinar)*, St. John's, Newfoundland: Newfoundland and Labrador Alliance for the Control of Tobacco, 2016.