

**Title:**

E-Cigarettes: Effective Smoking Cessation Aids?

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**Keywords:**

E-cigarettes, Safe and Smoking Cessation

**References:**

Bullen, C., Howe, C., Laugesen, M., McRobbie, H., Parag, V., Williman, J., & Walker, N. (2013). Electronic cigarettes for smoking cessation: A randomised controlled trial. *The Lancet*, 382(9905), 1629-1637. Caponnetto, P., Campagna, D., Cibella, F., Morjaria, J. B., Caruso, M., Russo, C., & Polosa, R. (2013). Efficiency and safety of an electronic cigarette (ECLAT) as tobacco cigarettes substitute: A prospective 12-month randomized control design study. *PloS One*, 8(6), 1-12. doi: 10.1371/journal.pone.0066317 Tseng, T. Y., Ostroff, J. S., Campo, A., Gerard, M., Kirchner, T., Rotrosen, J., & Shelley, D. (2016). A randomized trial comparing the effect of nicotine versus placebo electronic cigarettes on smoking reduction among young adult smokers. *Nicotine & Tobacco Research*. doi:10.1093/ntr/ntw017

**Abstract Summary:**

The purpose of this review was to determine whether e-cigarettes are a safe and effective tool for promoting smoking cessation. Despite their increased popularity as smoking cessation aids, the efficacy of e-cigarettes as a smoking cessation aid has not been established. The unknown safety of e-cigarettes presents an additional concern.

**Learning Activity:**

LEARNING OBJECTIVES	EXPANDED CONTENT OUTLINE
The learner will be able to determine whether or not e-cigarettes are an effective smoking cessation tool for adult tobacco smokers.	The learner will be presented with reviewed studies regarding the efficacy of e-cigarettes as a smoking cessation tool for adult tobacco smokers.
The learner will be able to understand the safety concerns regarding e-cigarettes.	The learner will be presented with reviewed studies regarding the safety of e-cigarettes.

**Abstract Text:**

Since e-cigarettes were introduced to the United States in 2007, use among adults has greatly increased. The most reported reason for e-cigarette use is to aid cigarette smoking cessation. Although behavior support and medications including gums and nicotine patches increase cigarette smoking cessation rates, long-term rates still remain low. Electronic cigarettes have sensory and behavioral aspects that other current treatments seem to lack. In this study, a literature review was conducted to determine if e-cigarettes are a safe and effective tool for promoting smoking cessation among adult tobacco smokers. Using the keywords e-cigarettes, electronic cigarettes, smoking cessation, smokers, and safe, five databases were searched: PubMed, The Cochrane Library, The Joanna Briggs Institute Library, PsycNET, and Ovid Medline. Meta-analyses, systematic reviews, randomized controlled trials, and studies involving adults and current tobacco smokers were included in this review. Studies that were not published within the past 10 years, studies not published in English, and studies involving hospitalized or

diseased patients were excluded from this review. A total of 11 studies were selected for review, three of which were meta-analyses. Results indicate that the efficacy of e-cigarettes as a smoking cessation aid has not been established. Multiple studies found that e-cigarette users were able to reduce their cigarette consumption, suggesting that e-cigarettes may be moderately effective for promoting smoking cessation; however, this data is inconclusive primarily because few clinical trials have been conducted to examine the relationship between e-cigarettes and smoking cessation. Studies also indicate that e-cigarettes contain toxic chemicals. However, e-cigarettes are considered to be a much less harmful alternative to smoking cigarettes, although no long-term adverse event data is currently available. Compared to cigarettes, e-cigarettes cause less secondhand toxicity exposure, fewer adverse effects, and less cytotoxicity. Uncertainty regarding the standardization of e-cigarette ingredients presents an additional safety concern. Currently, there is not yet enough evidence for clinicians to advise patients to use e-cigarettes as a primary smoking cessation aid. More large-scale, controlled clinical trials must be conducted to further assess the safety and effectiveness of e-cigarettes as smoking cessation aids. The Food and Drug Administration (FDA)'s recent announcement that e-cigarettes will be subject to FDA regulation starting in August 2016 may encourage researchers to conduct these much needed trials.