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Electronic cigarette use and its systemic repercussions



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ABSTRACT

The electronic cigarette is a device composed of a heating element and a cartridge, filled with flavorings, nicotine and other elements, which, through a battery, generate vapor. The vaporized liquid, inhaled from a mouthpiece, provides sensations similar to that of tobacco smoke, delivering nicotine to the user in a less irritating way. It presents an alternative mechanism to combustion and allows the dosing of components, but its use is also associated with the development of heart and lung diseases. Thus, it is known that although the use of electronic cigarettes emerge. As an alternative to smoking, its real impact on the health of individuals is not yet fully elucidated. This summary exposes the systemic repercussions associated with the continuous use of FB and its effect on the user's life. A literature review was performed using the PubMed platform, with research from the last 5 years, in Portuguese and English.

Keywords: Electronic cigarette, Smokingassociated diseases.

1 INTRODUCTION

The electronic cigarette is a device composed of a heating element and a cartridge, filled with flavorings, nicotine and other elements, which, through a battery, generate vapor. The vaporized liquid, inhaled from a mouthpiece, provides sensations similar to that of tobacco smoke, delivering nicotine to the user in a less irritating way. It presents an alternative mechanism to combustion and allows the dosing of components, but its use is also associated with the development of heart and lung diseases. Thus, it is known that although the use of electronic cigarettes emerge. As an alternative to smoking, its real impact on the health of individuals is not yet fully elucidated. This summary exposes the systemic repercussions associated with the continuous use of FB and its effect on the user's life. A literature review was performed using the PubMed platform, with research from the last 5 years, in Portuguese and English.

Quitting smoking is not always easy, but there are some options to replace CC, such as EC. Studies indicate lower short-term toxicity of FB compared to WC, but their social acceptance and frequency of use is increasing. In 2015, current EC users aged 45 years or older were mostly smokers or former smokers, while those aged 18 and 24, 40.0% had never smoked. The effects of the EC components are still being investigated, such as: nickel, associated for example with chronic bronchitis and fibrosis; aluminum, to asthma; iron, to respiratory irritation and pulmonary fibrosis; and sodium, to shortness of breath and irritation in the lung; the heating product of propylene glycol/glycerol breaks down dsDNA.

In addition, EVALI is a respiratory disease, acute or subacute, associated with the use of EC with THC-containing products. Therefore, despite being efficient to replace conventional cigarettes, especially for individuals aged 45 years or older, e-cigarettes should continue to be contraindicated by pulmonologists, since in the long term they continue to exacerbate effects specific pulmonary diseases, such as inflammation and pulmonary fibrosis, associated with the presence of metals and compounds such as propylene glycol and glycerol, in addition to acting as a gateway to smoking for young individuals between 18 and 24 years of age, who socially initiate this habit.

REFERENCES

Canistro, Donatella, et al. 'E-Cigarettes Induce Toxicological Effects That Can Raise the Cancer Risk'. Scientific Reports, vol. 7, no. 1, May 2017, p. 2028. PubMed, https://doi.org/10.1038/s41598-01702317-8.

Cigarros eletrônicos: efeitos adversos conhecidos e seu papel na cessação do tabagismo | Revista Eletrônica Acervo Saúde. Oct. 2020. Acervomais.com.br, https://acervomais.com.br/index.php/saud e/article/view/4376.

Holliday, Richard, et al. 'E-Cigarette Vapour Is Not Inert and Exposure Can Lead to Cell Damage'. Evidence-Based Dentistry, vol. 17, no. 1, Mar. 2016, pp. 2–PubMed, https://doi.org/10.1038/sj.ebd.6401143.

Polosa, Riccardo, et al. 'Health Impact of E-Cigarettes: A Prospective 3.5-Year Study of Regular Daily Users Who Have Never Smoked'. Scientific Reports, vol. 7, no. 1, Nov. 2017, p. 13825. www.nature.com, https://doi.org/10.1038/s41598-01714043-2.

Silva, Barbara Beatriz Lira da, et al. 'Lesões causadas pelo uso de cigarro eletrônico: revisão integrativa'. Research, Society and Development, vol. 10, no. 16, Dec. 2021, pp. E25101623137—e25101623137. Rsdjournal.org, https://doi.org/10.33448/rsdv10i16.23137.

Riscos do uso alternativo do cigarro eletrônico: uma revisão narrativa | Revista Eletrônica Acervo Científico. July 2021. Acervomais.com.br, https://acervomais.com.br/index.php/cient ifico/article/view/8135.

Werner, Angela K., et al. 'Hospitalizations and Deaths Associated with EVALI'. New England Journal of Medicine, vol. 382, no. 17, Apr. 2020, pp. 1589–98. Taylor and Francis+NEJM, https://doi.org/10.1056/NEJMoa1915314

ARAÚJO, A. C. de; BARBOSA, I. C. R.; TARGIN, A. L. D.; ARAÚJO, M. C. M.; REINALDO, P. V. de S.; ARAÚJO, R. S. M. de; QUEIROZ, S. S. de; MACIEL, M. do V.; RODRIGUES NETO, J. F. Cigarros eletrônicos e suas consequências histopatológicas relacionadas à doenças pulmonares. Arquivos de Ciências da Saúde da UNIPAR, Umuarama, v. 26, n. 1, p, 75-87, jan./abr. 2022, https://pesquisa.bvsalud.org/portal/resour ce/pt/biblio-1362684

Filho, André Rodrigues de Senna Batista, et al. 'Cigarro Eletrônico: Malefícios e Comparação Com o Tabagismo Convencional/ E-Cigarette: Harmful Effects and Comparison with Smoked Tobacco'. Brazilian Journal of Health Review, vol. 4, no. 4, July 2021, pp. 15898–907. DOI.org (Crossref), https://doi.org/10.34119/bjhrv4n4-119.