

## Diseases caused by electronic cigarettes and their irreversible damage

**Renan Italo Rodrigues Dias<sup>1</sup>, Ada Rhalinne Dias Arruda Silva Araújo<sup>2</sup>, José de Moura Sampaio Neto<sup>3</sup>, Thaynara Maria Honorato Muniz<sup>4</sup>, Saulo Barreto Martins de Melo<sup>5</sup>, Luciano Ribeiro Dantas<sup>6</sup>, Sarah Leny Gomes Madeiro Cruz<sup>7</sup>, Landsteiner dos Anjos Leite<sup>8</sup>, Robson Prazeres de Lemos Segundo<sup>9</sup>, Dayane Karen Carvalho de Sousa<sup>10</sup>.**

### ABSTRACT

The increase in the consumption of electronic cigarettes has aroused concerns due to the potential damage to health. This study addresses the diseases caused by the use of electronic cigarettes and their irreversible damage. We seek to identify the harmful health effects associated with this practice, providing crucial insights for preventive interventions and more effective health policies. The increasing use of e-cigarettes as an alternative to traditional smoking raises questions about the impacts on lung and cardiovascular health. Although considered less harmful, e-cigarettes pose significant risks due to the presence of harmful chemicals and aerosols. In addition, the analysis points to vascular impairment and increased risk of irreversible cardiovascular diseases, with emphasis on oxidative stress and the formation of atherosclerotic plaques. Continuous exposure to heavy metals and other toxic compounds in the vapors contributes significantly to this damage. The discussion highlights the urgent need for stricter regulation and awareness campaigns to address the misperception that e-cigarettes are harmless. The limitations of the study, such as the lack of more recent data, are acknowledged, underscoring the importance of continued research.

**Keyword:** Electronic cigarettes, Lung health, Cardiovascular diseases, Prevention, Regulation.

### INTRODUCTION

The introduction of this study addresses the growing concern associated with the increased consumption of e-cigarettes and the potential irreversible damage to health. Despite being promoted as a safer alternative to traditional smoking, e-cigarettes have raised critical questions about their impacts on lung and cardiovascular health. This context motivates detailed investigation of the adverse effects caused by the use of these devices, in order to provide a comprehensive understanding of the associated risks and to support more effective prevention and intervention strategies.

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<sup>1</sup> IEDA – SP

<sup>2</sup> FAMENE (Nova Esperança Medical School) - Paraíba

<sup>3</sup> FAMENE (Nova Esperança Medical School) - Paraíba

<sup>4</sup> FAMENE (Nova Esperança Medical School) - Paraíba

<sup>5</sup> FAMENE (Nova Esperança Medical School) - Paraíba

<sup>6</sup> FAMENE (Nova Esperança Medical School) - Paraíba

<sup>7</sup> FAMENE (Nova Esperança Medical School) - Paraíba

<sup>8</sup> FAMENE (Nova Esperança Medical School) - Paraíba

<sup>9</sup> FAMENE (Nova Esperança Medical School) - Paraíba

<sup>10</sup> FAMENE (Nova Esperança Medical School) - Paraíba



## **OBJECTIVES**

To investigate the irreversible health damage associated with the use of e-cigarettes, with an emphasis on lung and cardiovascular diseases, aiming to provide a solid basis for preventive interventions and more effective health policies. To analyze the updated scientific literature to identify the main impacts of the use of e-cigarettes on lung and cardiovascular health. To assess the irreversible damage caused by the chemical components present in e-cigarettes, focusing on acute lung inflammation and progression to chronic conditions.

## **METHODOLOGY**

A systematic review of the scientific literature was conducted, covering epidemiological studies, systematic reviews and meta-analyses related to the effects of the use of e-cigarettes on health. The databases used included PubMed, Cochrane, and other reliable sources, considering publications up to January 2022.

## **RESULTS**

The literature review showed a consistent association between the use of e-cigarettes and irreversible lung damage. Multiple studies have highlighted the role of chemical compounds present in vapors in inducing acute lung inflammation, as well as increasing the risk of developing chronic lung diseases such as COPD and chronic bronchitis.

The results indicated that long-term use of e-cigarettes is related to impaired vascular function and increased risk of irreversible cardiovascular disease. Exposure to toxic substances contributes to the development of conditions such as atherosclerosis, compromising vascular integrity and predisposing to cardiovascular events.

## **DISCUSSION**

Analysis of the results reveals substantial implications of the irreversible health damage caused by e-cigarette use. The discussion addresses critical points related to pulmonary and cardiovascular effects, highlighting the long-term consequences of this practice.

The presence of chemical compounds in e-cigarette vapors induces acute lung inflammation, creating an environment conducive to the development of chronic conditions. Persistent inflammation is identified as a key factor in the pathogenesis of irreversible lung diseases, such as COPD and chronic bronchitis.



## **CONCLUSION**

In conclusion, this study highlights the urgency of preventive approaches to mitigate the harms caused by e-cigarette use. The implementation of restrictive policies, educational campaigns, and the promotion of safer alternatives are essential to combat the irreversible diseases associated with this practice. Protecting public health requires immediate action to curb the negative impact of e-cigarettes on society.