

OCCUPATIONAL EXPOSURE TO MERCURY METAL VAPOR OF THE DENTAL AMALGAM

Cleiton Faria Lima¹; Luiz Eugênio Nigro Mazzilli²

Nome da instituição-cidade-estado: 1. Fundacentro – Ministério do Trabalho e Emprego, São Paulo/SP, 2. Faculdade de Odontologia - Universidade de São Paulo, São Paulo/SP.

INTRODUCTION: dental amalgam has been used in dentistry for centuries. In its composition there is the presence of metallic mercury, a substance with high volatility at room temperature and highly toxicity. This work sought to analyze the state of the art of scientific literature on occupational exposure to mercury metal vapor. **OBJECTIVE:** to analyze the state of the art of the scientific literature on occupational exposure of the dental surgeon and his team to metallic mercury vapor. **MATERIAL AND METHODS:** research was carried out in the Web of Science, Scopus and Lilacs databases, research period from January 2000 to March 2023, in English and Portuguese, in addition to search in gray literature, without date limits. After inclusion and exclusion criteria analysis, 86 articles from 25 countries were selected. **RESULTS AND CONCLUSIONS:** the literature analyzed pointed to the existence of different moments of exposure, exposure levels in biological samples, health impacts and uncertainties regarding what minimum levels of exposure to mercury vapor can be considered safe. These findings indicate the need to adopt preventive measures when procedures with dental amalgam are involved, always seeking the lowest possible level of exposure. Oral health professionals may be exposed to metallic mercury vapor from dental amalgam under various procedures and practices, and the level of this exposure may vary according to working conditions and the preventive measures employed. Teaching correct measures for the use and handling of dental amalgam in undergraduate dentistry courses is recommended.

Keywords: Mercury; Occupational health; Dental amalgam; Oral health; Occupational exposure.

¹Fundacentro – Ministério do Trabalho e Emprego.

²Faculdade de Odontologia - Universidade de São Paulo.