



## 5. ERECTILE DYSFUNCTION IN PATIENTS WITH PERIODONTAL DISEASE

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**Introduction.** Erectile dysfunction (ED) is the inability to achieve or maintain an erection for a sufficient duration for sexual intercourse. Periodontal disease is primarily the result of infection and inflammation of the gums and bone that surround and support the teeth. There is growing evidence that periodontal disease may affect male sexual health (erectile function). However, clinical studies showing a link between male sexual health and periodontal disease are limited.

**Aim of study.** The aim of this study was to evaluate the relationship between periodontal disease and erectile dysfunction.

**Methods and materials.** The study was based on a systematic review of publications over the last decade on selected topics using Google Academic, PubMed and Scopus electronic databases, combining keywords related to periodontal disease and words describing erectile and reproductive dysfunction. A total of 410 articles were retrieved, 45 of which met the inclusion criteria.

**Results.** A total of 20 studies were included and analyzed the systematic review. The ages of the study participants ranged from 18 to 95 (mean age 41.2 years). In six studies, the age of the participants was not specified. Only three studies have evaluated the relationship between sex hormone levels and periodontitis, and two of them showed that patients with periodontitis should have high levels of testosterone. Two of the five studies showed a significant association between semen quality and periodontal disease. Finally, out of nine studies, eight found a significant association between erectile dysfunction and periodontal disease. Studies do not show the direct mechanism of erectile dysfunction, but draw attention to correlations between periodontal diseases and cardiovascular or metabolic diseases, more common in these patients. It is also mentioned that dental extraction can improve the function of the vascular endothelium.

**Conclusion.** This systematic review found a significant association between periodontal disease and erectile dysfunction, but the mechanism is still unclear. Further research is needed to determine the mechanisms of interaction between these diseases.