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# Scope of photodynamic therapy in periodontics.

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## Abstract

Periodontal disease results from inflammation of the supporting structure of the teeth and in response to chronic infection caused by various periodontopathic bacteria. The mechanical removal of this biofilm and adjunctive use of antibacterial disinfectants and antibiotics have been the conventional methods of periodontal **therapy**. However, the removal of plaque and the reduction in the number of infectious organisms can be impaired in sites with difficult access. Photodynamic **therapy** (PDT) is a powerful **laser**-initiated photochemical reaction, involving the use of a photoactive dye (photosensitizer) activated by light of a specific wavelength in the presence of oxygen. Application of PDT in periodontics such as pocket debridement, **gingivitis**, and aggressive periodontitis continue to evolve into a mature clinical treatment modality and is considered as a promising novel approach for eradicating pathogenic bacteria in periodontitis.

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