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# T Helper 17 Cells as Pathogenic Drivers of Periodontitis

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## Abstract

T helper 17 (Th17) cells were first described as a T helper subset involved in the pathogenesis of experimental autoimmune inflammation. Since then, these cells have been described as orchestrators of immunopathology in several human inflammatory conditions including psoriasis, rheumatoid arthritis, and inflammatory bowel disease. More recently, the crucial role of Th17 cells in the regulation of immunity and protection of barrier sites has been unveiled. In the present work, we review the available evidence regarding Th17 cells in health and disease with a focus on the oral mucosa and their role in periodontitis pathogenesis. Recent mechanistic studies in animal models have demonstrated that interleukin-17A (IL-17A) and Th17 cells are critical mediators for alveolar bone destruction during periodontal inflammation. Observations in a cohort of patients with naturally occurring impaired Th17 cell differentiation supported these findings. However, interventional studies are needed to conclusively implicate Th17 cells in the immunopathogenesis of human alveolar bone and tissue destruction that characterize periodontitis.

## Cite this paper

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