



**Keywords:** Cementogenesis; Acellular cementum; Periodontal tissues; Periodontal ligament; Growth factors

## Introduction

A sequential phased healing response begins after periodontal tissues are injured, allowing for wound closure and partial tissue structure and function restoration. In periodontal tissues, the tight coordination of resident cells in the epithelial and connective tissue compartments is necessary for wound closure. To reestablish a mucosal seal that involves the underlying periodontal connective tissues and their attachment to the tooth surface, multiple cell populations in these compartments combine their metabolic activities [1]. Since the colonization of tooth surfaces by pathogenic biofilms promotes inflammation, which can contribute to periodontal tissue degradation and tooth loss, the formation of an impermeable seal around the tooth is especially important for oral health. Fibroblasts are central to the restructuring of periodontal tissue structures during the healing response. They produce and arrange the collagen fibers that connect the alveolar bone and gingiva to the cementum that covers the tooth root. Diverse, multi-functional fibroblast populations in the connective tissues of the gingiva and periodontal ligament contribute to the reestablishment of a functional periodontium. A fibroblast subtype known as the myofibroblast emerges following gingival wounding and plays a crucial role in collagen synthesis and extracellular matrix remodeling [2].

**Healing of periodontium**



## Conclusion

In conclusion, the results demonstrate the dynamic process of cementogenesis and its crucial role in periodontal health and tooth