



The American Academy of Periodontology (AAP) Best Evidence Consensus (BEC)

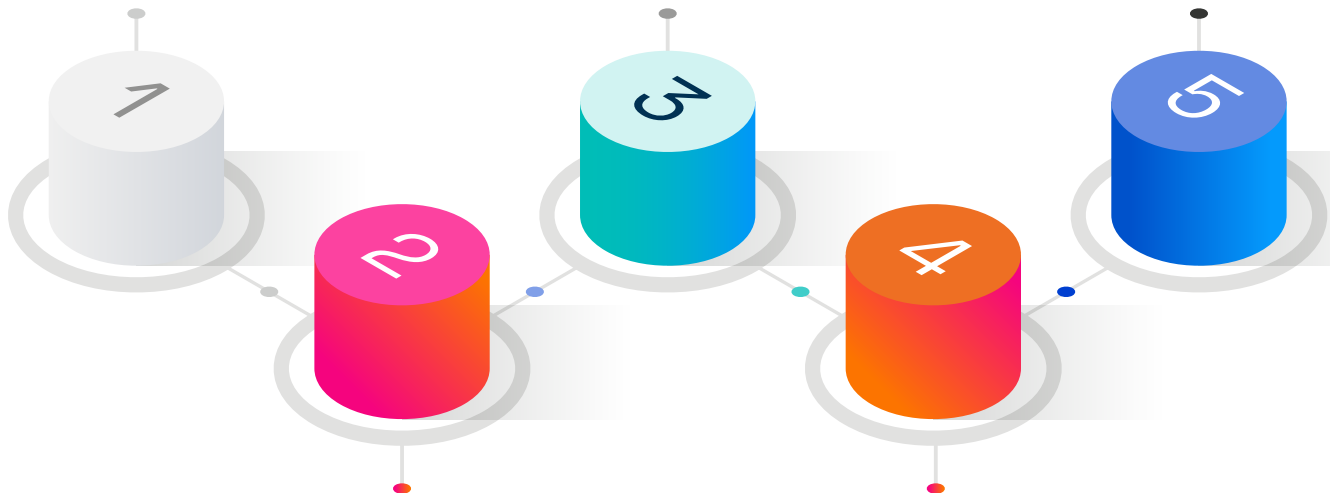
With the use of biologics progressively becoming a core component of contemporary periodontal practice, the goal of the American Academy of Periodontology (AAP) best evidence consensus (BEC) was to provide a state-of-the-art, evidence-based perspective on the therapeutic application of autologous blood-derived products (ABPs), enamel matrix derivative (EMD), recombinant human platelet-derived growth factor BB (rhPDGF-BB), and recombinant human bone morphogenetic protein 2 (rhBMP-2). The purpose was to address their safety, indications, and effectiveness in specific clinical scenarios.

The evidenced based conclusions following an extensive assessment of 385 articles of which 153 met the inclusion criteria and were analyzed qualitatively with 150 studies providing data for the network meta-analysis were as follows:

Based on an analysis of the current evidence and expert opinion, the panel concluded that the appropriate use of biologics in periodontal practice is generally safe and provides added benefits to conventional treatment approaches.¹

The selection of the type of Bone Graft (autogenous, allogeneic, xenogeneic or synthetic bone graft) and the type of biologic agent (EMD, PRF, PRP or rhPDGF-BB) plays an important role on the final results, with rhPDGF-BB [or] PRF associated with superior clinical and radiographic outcomes compared to PRP and EMD, and rhPDGF-BB exhibiting the largest effect size for most parameters.²

Superior long-term stability, periodontal health, and esthetics after surgical treatment of infrabony defects have been demonstrated with the use of some biologic agents (i.e., EMD and rhPDGF-BB).¹



Overall, rhPDGF-BB exhibited the largest effect size for most parameters, including clinical attachment level gain, pocket depth reduction, less gingival recession and radiographic linear bone gain.²

Overall, our findings revealed that the addition of biologic agents to BG (bone graft) materials significantly enhances the CAL (Clinical Attachment Level) gain, PD red (probing depth reduction), REC change (changes in gingival recession) and rBF (radiographic bone Fill) and rLBG (radiographic linear bone gain) outcomes of periodontal regeneration as compared to BGs alone and flap procedures.²

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1. American Academy of Periodontology best evidence consensus statement on the use of biologics in clinical practice Gustavo Avila-Ortiz et al.

2. Efficacy of biologics for the treatment of periodontal infrabony defects: An American Academy of Periodontology best evidence systematic review and networkmeta-analysis Lorenzo Tavelli et al.