

BIOACTIVE BY DESIGN



45S5 Bioactive Glass

45S5 Bioactive Glass is an **Osteoconductive** and **Osteostimulative** material that facilitates new bone formation.¹

APEX BG+ forms an exceedingly strong interfacial bond between the graft and adjacent bony tissue within minutes of implantation.¹ *APEX BG+* graft triggers the mechanisms that cause **differentiation and proliferation of osteoblasts**.²

Accelerates the process of **Osteogenesis**.⁴

Antimicrobial. In vitro studies demonstrate that ionic release (Ca⁺⁺) and local pH changes inherent to bioactive glass create an unfavorable environment for growth of certain microbes.⁵



Demineralized Allograft Bone

Demineralized allograft bone is widely recognized to induce host mesenchymal cells to form new bone through **endochondral ossification**.⁴

Successful bone regeneration requires a combination of osteogenic cells, osteoinductive signals, and osteoconductive scaffolds. The **Osteoinductive** and **Osteoconductive** properties, as well as the natural growth factors found in *APEX BG+* help to promote an optimal fusion outcome.⁶