Osteostimulative Bone Regeneration Matrix

PerioGlas®: Mechanisms of Osteostimulation
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Osteostimulation is the active stimulation of osteoblast proliferation and differentiation as evidenced by increased levels of DNA synthesis and of the osteoblast markers osteocalcin and alkaline phosphatase. Through an ion-exchange effect, PerioGlas® first acts as a scaffolding around and through which new bone forms. In vivo studies have demonstrated that the osteostimulative properties result in stimulation and acceleration of new bone formation in an osseous defect. (FDA 510k) clearance, February 2006 for PerioGlas®. The supporting data for osteostimulation "has not been established in humans." 

**Controlled induction**

Osteostimulation "has not been established in humans." Conversely, clinical evaluations in oral and periodontal defects have demonstrated a reduced level of or lower due to the damaged vasculature and the release of various enzymes during the healing process.1 PerioGlas® and Bioglass® after implantation and the release of calcium ions during material dissolution. A positive surface charge has been shown to stimulate osteoblasts, while the modified surface attracts and binds the critical components for bone regeneration.

**References:**

**References:**
2. Park JB.

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