

# Bone Substitute

BOVINE HYDROXYAPATITE MATRIX  
FOR ORTHOPEDICS APPLICATIONS

With its high porosity and low remodeling rate, the hydroxyapatite mineral matrix acts as a biological facilitator, promoting cellular migration while preserving bone volume and stimulating **angiogenesis** and **osteogenesis**.

NG Bone Bone Substitute is derived from **meticulously purified** bovine trabecular bone, yielding a 100% hydroxyapatite mineral matrix while maintaining the porosity of native trabecular bone.

The **regenerative** and **osteoconductive** properties of NG Bone Bone Substitute make it an outstanding solution for bone defect filling and structural support in trauma surgical applications.

## Features

### • Biocompatible

A sterile, pyrogen-free, tricalcium phosphate-based mineral filler that preserves the native trabecular bone structure.

### • Bioinductive

Provides a biological scaffold that supports new bone formation and enhances natural healing.

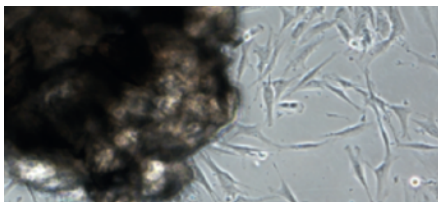
### • Structural-Filling

Offers mechanical support and integrates into the newly forming bone, maintaining volume over time.

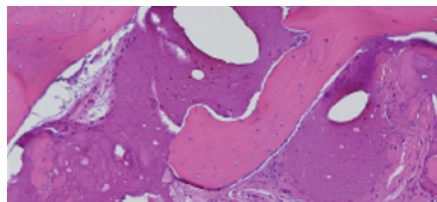
## Applications

- Bone defect filling post-tumor resection
- Vertebral arthroplasty
- Prosthesis revision
- Orthopedics
- Osteotomy

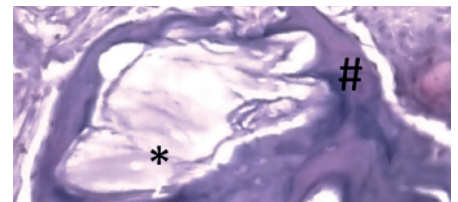
## Analysis



*In vitro* cellular viability analysis as histological quality control of bone particles.<sup>2</sup>



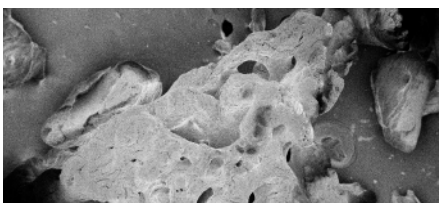
*In vivo* bone regeneration analysis as histological quality control of bone particles.<sup>2</sup>



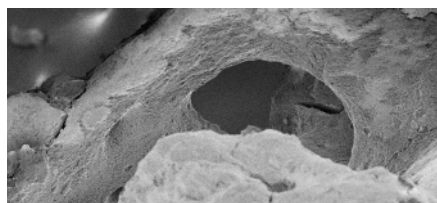
60-day *in vivo* assay: Bone particles (\*) surrounded by newly formed bone tissue (#), demonstrating histological features of vital lamellar bone.<sup>1</sup>

References: <sup>1</sup> Chair of Histology "A", School of Dentistry, National University of Córdoba  
<sup>2</sup> Chair of Histology "B", School of Dentistry, National University of Córdoba

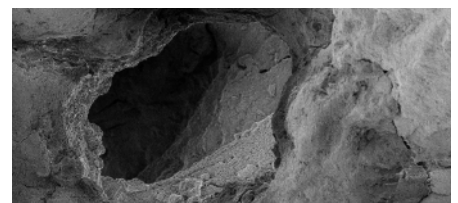
## Micrographs



100 µm | Bone Substitute Particle



100 µm | Bone Substitute Particle



20 µm | Bone Substitute Pore



100%

**HYDROXYAPATITE**  
(TRICALCIUM PHOSPHATE)

A bovine-derived mineral hydroxyapatite matrix designed for guided bone regeneration and substitution.

Presentation	Particle Sizes*
5 ml	G
10 ml	G, EG
15 ml	G, EG
30 ml	G, EG, EGC
50 ml	EGC

\* G = 1000-2000 µm, EG = 2000-4000 µm  
EGC > 4000 µm