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Neobone®

CALCIUM PHOSPHATE CERAMIC for BONE FILLING

RAW MATERIALS

- Chitosan
- Hydroxyapatite
- Biphasic Mixtures (HA+ β TCP)

MEDICAL DEVICES

- 3D Bone Substitutes
- Injectable Bone Substitutes
- Bone Cement
- Wound Dressing
- Membranes

COATINGS

- Hydroxyapatite (HA)
- Titanium (Ti)
- Double Layer (Ti+HA)
- Triple Layer (Ti+Ti+HA)
- PVD
- Anodizing

3D Scaffolds of Hydroxyapatite and Tricalcium Phosphate biphasic mixture

Neobone® is presented in form of blocks, wedges, cylinders, irregular granules and sphere-like granules



Specifications

Blocks, Wedges, Cylinders and Irregular granules

Density: $\sim 0.7 \text{ g/cm}^3$

Total Porosity: 60% - 80%

Cell size: 200 μm - 500 μm

Compressive Strength: $> 0.2 \text{ MPa}$

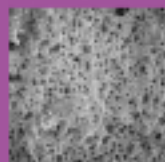
Composition

Hydroxyapatite $[\text{Ca}_{10}(\text{PO}_4)_6(\text{OH})_2]$ and beta-Tricalcium Phosphate $[\text{Ca}_3(\text{PO}_4)_2]$



Biocompatible material with Interconnected Porosity

Promotes bone growth, allows the proliferation of fibroblasts, osteoblasts and other cells



Neobone® is BIOCOMPATIBLE

due to its chemical composition similar to bone

Neobone® is OSTEOCONDUCTIVE

due to its 3D interconnected porosity



Neobone® is SAFE

It is a synthetic calcium phosphate and presents no risks of disease transmissions

CASE #1

35 years old Female with bone cyst in the femoral head and neck

Surgical procedure

Removal of bone cyst and total bone defect filling with Neobone® irregular granules

Follow up

- No signs of local infection;
- No complications reported;
- Normal cicatrization;
- New bone formation verified by radio-opaque tissue visibility;
- No bone substitute displacement was observed.



Post-operative X-Ray

CASE #2

29 years old Female with Adolescent Idiopathic Scoliosis.



Post-operative X-Ray

Surgical procedure

Implant of two rods and pedicle screws in T3 thoracic vertebrae to L1 lumbar vertebrae in order to potentialize the posterolateral fusion.

Follow up

- No complications were reported in the follow up performed 6 months after surgery.
- Fusion was reported which means that surgery was successfully.