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# SYNERGY

Pure Synthetic Bone Graft

✓ Effective Bone Graft Substitute Perfect for dental applications. Ideal auto or allograft extender.

✓ Radiodense

Clearly evident on radiographic images, allowing visualization of bone graft placement.

✓ Affordable

The price conscious solution for periodontal bone void filling.

✓ Innovative, Convenient Packaging



## Synergy is CONFIDENCE backed by years of proven successful use in human medicine.

#### WHAT IS SYNERGY?

Synergy is an advanced biosynthetic bone graft comprised of calcium phosphates that occur naturally in real bone. It is a biphasic combination of  $\beta$ -Tricalcium Phosphate ( $\beta$ -TCP) and Hydroxyapatite (HA).

## FEATURES + BENEFITS

#### Advanced Formulation

Biphasic Synergy is composed of biocompatible  $\beta$ -TCP and HA¹ sintered together. The ratio is optimized for swift transformation into new bone throughout the graft.

- 85% resorbable β -TCP
- · 15% structurally stable HA

### Balanced Remodeling

Synergy works with the body in 2 integrated phases.

- Phase 1: β-TCP simultaneously resorbs as new bone is formed<sup>2</sup>, remodeling throughout the graft
- Phase 2: HA microparticles slowly resorb, providing an osteoconductive scaffold

#### Cancellous-like, Osteoconductive Morphology

Synergy's structure is the architectural equivalent of cancellous bone.

- Interconnected porous structure encourages stem cell migration, proliferation and differentiation into osteoblasts<sup>2</sup>
- Provides for an adequate flow of nutrients to enhance new bone formation<sup>3</sup>



#### **HOW IT WORKS**

These intelligent bioactive materials have the proven ability to stimulate bone formation. The  $\beta$ -TCP quickly releases calcium ions that cause clotting and release of platelet-derived growth factors. This cascade of mineral release and blood clotting provides the perfect environment for stimulation of bone healing.

The cancellous-like porosity and surface structure encourage inward cell migration. As the  $\beta$ -TCP resorbs more space is created to support angiogenesis and bone formation¹. The micro particles of HA provide a more long lasting osteoconductive structure.

# **INDICATIONS**

Filling, bridging and/or reconstruction of non weight-bearing bony defects.

#### **DENTAL**

- ✓ Void filling / Extraction sites
- ✓ Periodontal pockets / Other bone loss
- ✓ Fracture repair
- ✓ Cysts / Other osseous defects

#### DOSE SIZES

Two convenient packaging choices:

DENTAL: DTP10686 - Mini-vials 4 cc (8 x 0.5 cc doses)

**DTP10687 - Pro-vials 15 cc** (3 x 5 cc doses)

#### REFERENCES

- Farina et al., In vivo behaviour of two different biphasic ceramic implanted in mandibular bone of dogs. J Mater Sci: Mater Med 19:1565-1573, 2008
- Spivak JM, Hasharoni A. Use of hydroxyapatite in spine surgery. Eur Spine J. 10: 5197-5204, 2001
- Habibovic P, de Groot K.
   Osteoinductive biomaterials properties and relevance in bone repair.
   J Tissue Eng Regen Med. 1: 25-32, 2007
- Daculsi et al., Transformation of biphasic calcium phosphate ceramics in vivo: ultrastructural and physicochemical characterization. J Bio Mat Res 23:883.04 1989