



**The Smart
Synthetic**

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 or
orthopedic bone void filling.
- ✓ **Innovative, Convenient Packaging**



The Bone Graft Experts
VETERINARY TRANSPLANT SERVICES, INC.

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 β -Tricalcium Phosphate (β -TCP) and Hydroxyapatite (HA).



FEATURES + BENEFITS

Advanced Formulation

Biphasic Synergy is composed of biocompatible β -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 formed², 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 osteoblasts²
- Provides for an adequate flow of nutrients to enhance new bone formation³

HOW IT WORKS

These intelligent bioactive materials have the proven ability to stimulate bone formation.³ The β -TCP quickly releases calcium ions⁴ 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 β -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

ORTHO

- ✓ Use as an auto or allograft extender
- ✓ Void filling / Osteotomy sites
- ✓ Filling & reconstruction of metaphyseal bone defects
- ✓ Arthrodesis

DOSE SIZES

Three convenient packaging choices:

DENTAL: Mini-vials 4 cc (8 x 0.5 cc doses) Pro-vials 15 cc (3 x 5 cc doses)

ORTHO: Peel Pack Vials 5 cc (5 x 1 cc doses)

REFERENCES

1. 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
2. Spivak JM, Hasharoni A. Use of hydroxyapatite in spine surgery. Eur Spine J. 10: S197-S204, 2001
3. Habibovic P, de Groot K. Osteoinductive biomaterials – properties and relevance in bone repair. J Tissue Eng Regen Med. 1: 25-32, 2007
4. Daculsi et al., Transformation of biphasic calcium phosphate ceramics in vivo: ultrastructural and physicochemical characterization. J Bio Mat Res 23:883-94, 1989



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The manufacturer of Osteoallograft, the veterinary world's first real bone allograft.