Regeneration
Bone Grafting & Soft Tissue Management

Dentium USA
Developed by Clinicians for Clinicians
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Application of OSTEON™

- Cystic cavities
- Sinus lifts

Composition of OSTEON™

HA scaffold coated with β-TCP
Osteoconductive biphasic calcium phosphate

OSTEON™ = HA 70% + β-TCP 30%

Characteristics of OSTEON™

- 100% synthetic bone graft material
- Interconnected porous structure similar to that of human cancellous bone
- Osteoconductive material as a bone growth scaffold

Cell Adhesion Test

The Osteoblast cell was well attached and spread on OSTEON™ surface.
Human History

6.5 months after Sinus Graft Surgery

OSTEON™ area = 1.24mm² (17.1%)
New Bone area = 1.63mm² (22.7%)

10 months after Sinus Graft Surgery

OSTEON™ area = 3.04mm² (35.5%)
New Bone area = 2.38mm² (27.7%)

21 months after Sinus Graft Surgery

OSTEON™ area = 6.30mm² (40.4%)
New Bone area = 5.12mm² (33.0%)
Clinical Case

OSTEON™ Sinus Case
(Sinus grafting-Lateral approach)

After 9 months

OSTEON™ Lifting Case
(Sinus grafting-Crestal approach)

Products

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Application of OSTEON™ II

- Ridge augmentation
- Extraction sites
- Cystic cavities
- Sinus lifts
- Periodontal intrabony defects

Composition of OSTEON™ II

HA scaffold coated with β-TCP
Osteoconductive biphasic calcium phosphate with higher β-TCP as compared to OSTEON™

OSTEON™ II = HA 30% + β-TCP 70%

Characteristics of OSTEON™ II

- 100% synthetic bone graft material
- Highly resorbable due to higher β-TCP content as compared to OSTEON™
- Easy manipulation
- Excellent wettability
- Pore size: 250μm
- Porosity: 70%
Cell Adhesion Test
Osteoblasts attached & spread well

Animal Test
12-weeks follow up in rabbit calvaria model

Clinical Case
Horizontal GBR

Products

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Instruction for OSTEON™/OSTEON™II Sinus & Lifting

① Slightly retract the plunger and gently tap to loosen particles. Gently push plunger back into place.

② Place syringe into a sterile dappen dish and retract plunger to draw liquid into the syringe.

③ To optimize delivery, OSTEON™/OSTEON™II should be wetted and loosened sufficiently.

④ Expel excess liquid by applying very gentle pressure on the plunger.

⑤ When sufficiently hydrated, OSTEON™/OSTEON™II will expel with ease from the syringe. Before injecting OSTEON™/OSTEON™II, remove the cap from the syringe.

⑥ Deliver OSTEON™/OSTEON™II directly into the surgical site with the syringe.

### Syringe

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<td>OSTEON™/OSTEON™II Lifting</td>
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O.D : Syringe outer diameter
I.D. : Syringe inner diameter
Collagen Membrane

Biodegradable barrier membrane for guided bone / tissue regeneration

Application of Collagen Membrane

- Periodontal / intrabony defects
- Ridge augmentation
- Extraction sites (implant preparation / placement)
- Sinus lifts

Characteristics of Collagen Membrane

- Highly pure type 1 collagen derived from bovine tendon : New Zealand.
- Thin membrane (300μm) with multiple layers for easy manipulation and good mechanical strength in surgery.
- Resorption period provides enough time for stabilizing graft materials and supporting bone growth.
- Multiple-layered structure enables more effective bone regeneration by sparing enough space for hard tissue formation and facilitates proliferation of osteoblasts.
- Easy manipulation
- Dual-sided usage

Easy manipulation
Dual-sided usage
Barrier function

SEM Image

X 1000
X 5000
Animal Test

- Rabbit Calvaria Model, 6-12 weeks

6 weeks

12 weeks

Degradation character in collagenase solution

Clinical Case

GBR

GBR

Products

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