



OSTEOGENICS

B I O M E D I C A L

**Regeneration
Products
Catalog**

osteogenics.com

Ordering

Our customer service professionals are available from 7 AM to 7 PM CST, Monday through Thursday, and 7 AM to 5 PM CST on Fridays. Orders may be placed by the following methods:

| | |
|---------------|--|
| TOLL-FREE | 1.888.796.1923 (US & Canada only) |
| INTERNATIONAL | +1 806.796.1923 |
| FAX | 806.796.0059 |
| EMAIL | sales@osteogenics.com |
| WEBSITE | www.osteogenics.com |
| ADDRESS | Osteogenics Biomedical, Inc. 4620 71st Street Building 78-79 Lubbock, TX 79424 |

Shipping

Orders placed by 5 PM CST will be shipped the same day unless specified otherwise by your customer service professional. Standard shipping is 2nd Day delivery with UPS. Due to our volume discounts with UPS, our 2nd Day rate is usually less than standard ground shipping and assures better tracking and customer support. Overnight delivery is available at discounted rates as well.

Payment

We make it easy for you. We accept all major credit cards, or domestic orders may choose payment terms of Net 15. All payments are in US Dollars.

Table of Contents

| | | | | | |
|----|--|----|--|---|--|
| | Bone Graft Materials | | | | |
| 4 | enCore® Allografts | 22 | | Resorba® Suture | |
| 6 | Zcore™ Porcine Xenograft Particulate | 23 | | Glycolon™ | |
| 8 | NovaBone® Dental Putty & Morsels | 24 | | PGA Resorba™ | |
| | Resorbable Barrier Membranes | 25 | | Resolon™ | |
| 10 | Cytoplast™ RTM Collagen | 25 | | Resolon Twist™ | |
| 11 | Cytoplast™ RTMPlug, RTMFoam, & RTMTape | 26 | | Fixation Systems | |
| 12 | Vitala® Porcine Derived Collagen | 27 | | Master-Pin-Control | |
| 13 | Zmatrix™ Porcine Peritoneum Collagen Membrane | 27 | | Pro-Fix™ Membrane Fixation | |
| 14 | Cytoplast™ Technique | 27 | | Pro-Fix™ Individual Components | |
| 14 | Ridge Preservation Kit: Cytoplast™ Technique | 28 | | Pro-Fix™ Tenting | |
| | Non-Resorbable Barrier Membranes | 29 | | Pro-Fix™ Bone Fixation | |
| 15 | Cytoplast™ TXT-200 & TXT-200 Singles | 30 | | Bone Scrapers | |
| 16 | Cytoplast™ Ti-250 & Ti-150 Titanium-Reinforced | 30 | | Micross | |
| 20 | Osteo-Mesh™ TM-300 | 30 | | Smartscraper | |
| 21 | Cytoplast™ PTFE Suture | 31 | | Safescraper® Twist – Curve Version | |
| | | 32 | | Selection of Applicable References | |

Pricing

Prices are subject to change. However, we will make every effort to notify you in advance of a change. We offer the following discounts on bulk purchases:

Buy 5, Get 1 FREE* on all products except Cytoplast™ PTFE Suture.

Buy 10 Boxes, Get 1 FREE on Cytoplast™ PTFE Suture.

*Mixing and matching different products is permitted; the least expensive product will be credited as free.

Availability

We know how frustrating back-orders are, so we carry enough inventory to ensure that, statistically, we have your product on hand 99% of the time. In the event of a back-order, we will notify you at the time of your order and give you an estimated ship date.

Satisfaction Assurance

If you are not completely satisfied with our products, call us and we will arrange for a replacement, exchange, or refund. Unopened boxes may be returned within 30 days from the invoice date for a full refund. Opened boxes may be returned for product exchange within 90 days of the invoice date; Quéтин Bone-Mill returns are subject to a 25% restocking fee. Call customer service at 1.888.796.1923 for return authorizations.



Unique Features of enCore® 70|30 Combination Allograft

A synergistic combination

- Combines the synergistic characteristics of slowly resorbing, space-maintaining mineralized cortical bone with osteoinductive demineralized matrix to provide an optimized environment for the regeneration of vital bone

Chair-side efficiency

- 70/30 combination graft is pre-mixed to reduce inventory and reduce chair-side preparation
- Double-sterile packaged for aseptic presentation in the surgical field

Tested twice to ensure its osteoinductivity

- Pre-sterilization *in vitro* BMP-2 assay
Prior to packaging and terminal sterilization, every lot is tested for a minimum threshold of BMP-2
All lots that fail to meet the threshold are discarded.
- Post-sterilization *in vivo* osteoinductivity verification
Every lot undergoes a final *in vivo* post-sterilization test to verify its osteoinductive potential

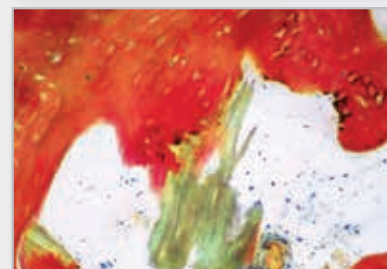
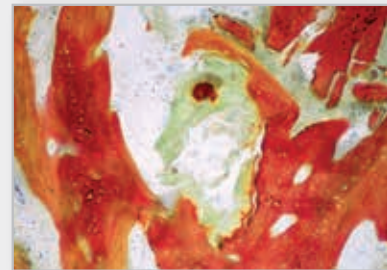
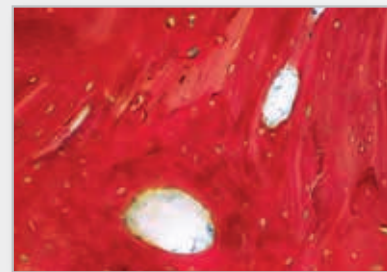
Best practices in safety

- Tissue processed by Allotech, an FDA-registered and AATB accredited tissue bank
- Single donor per lot
- Terminally sterilized by low-dose e-beam irradiation to a sterility assurance level of 10^{-6}

Representative histology taken at 6 months from a case using combination allograft

86% vital bone
14% residual graft
51% bone, 49% Marrow

Histology by Michael Rohrer, DDS, MS
University of Minnesota



enCore® 70|30 Combination Allograft (FDBA & DFDBA)
70% Mineralized Cortical Allograft and 30% Demineralized Allograft

.25 mm - 1.0 mm Particle Size

| | |
|--------|--------|
| C73050 | 0.5 cc |
| C73100 | 1.0 cc |
| C73150 | 1.5 cc |
| C73250 | 2.5 cc |



enCore® 50|50 Cortical & Cancellous Allograft
50% Mineralized Cortical Allograft and 50% Mineralized Cancellous Allograft

0.5 mm - 1.25 mm Particle Size

| | |
|---------|--------|
| CM55050 | 0.5 cc |
| CM55100 | 1.0 cc |
| CM55150 | 1.5 cc |
| CM55250 | 2.5 cc |



enCore® OD 30|70 Cortical & Cancellous Allograft
30% Mineralized Cortical Allograft and 70% Mineralized Cancellous Allograft

0.25 mm - 1.0 mm Particle Size

| | |
|---------|--------|
| OD37050 | 0.5 cc |
| OD37100 | 1.0 cc |
| OD37250 | 2.5 cc |



enCore® Mineralized Cortical Allograft
100% Mineralized Cortical Allograft

.25 mm - 1.0 mm Particle Size

| | |
|---------|--------|
| SMIN050 | 0.5 cc |
| SMIN100 | 1.0 cc |
| SMIN150 | 1.5 cc |
| SMIN250 | 2.5 cc |



1.0 mm - 2.0 mm Particle Size

| | |
|--------|--------|
| MIN050 | 0.5 cc |
| MIN100 | 1.0 cc |



Zcore™

Porcine Xenograft Particulate



Zcore™ Porcine Xenograft Particulate

.25 mm - 1.0 mm Particle Size

| | |
|-------|--------|
| ZS050 | 0.5 cc |
| ZS100 | 1.0 cc |
| ZS200 | 2.0 cc |
| ZS400 | 4.0 cc |



Zcore™ Porcine Xenograft Particulate

1.0 mm - 2.0 mm Particle Size

| | |
|-------|--------|
| ZL100 | 1.0 cc |
| ZL200 | 2.0 cc |



Zcore™ Porcine Xenograft Particulate in Syringe

.25 mm - 1.0 mm Particle Size

| | |
|-------|---------|
| ZY025 | 0.25 cc |
| ZY050 | 0.5 cc |



Features & Benefits of Zcore™

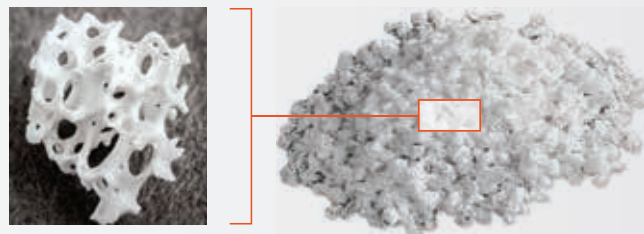
Zcore™ is an osteoconductive, porous, anorganic bone mineral with a carbonate apatite structure derived from porcine cancellous bone.

Interconnecting pores

Interconnecting macroscopic and microscopic porous structure supports the formation and ingrowth of new bone

88% to 95% void space

88% to 95% Void Space: hyper-porosity of porcine cancellous matrix and intra-particle space facilitated by rough particle morphology reduce bulk density of the graft, allowing greater empty space for new bone growth*



Porcine cancellous bone

Derived from porcine cancellous bone, eliminating risk of BSE transmission

Processed using minimal heat

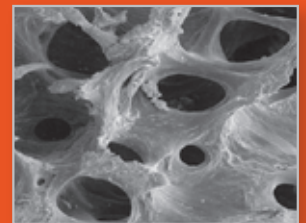
Heat treated to an optimal temperature that ensures a degree of crystallinity¹ consistent with native bone mineral to allow for remodeling of the healing bone

*0.25 mm – 1.0 mm particle size = 88% void space, 1.0 mm – 2.0 mm = 95% void space

1. Li ST, Chen HC, Yuen D. Isolation and Characterization of a Porous Carbonate Apatite From Porcine Cancellous Bone. Science, Technology, Innovation, Aug. 2014: 1–13.

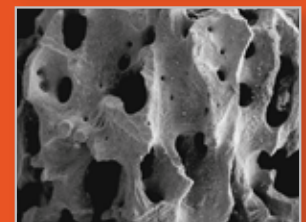
SEM of Processed Human Bone

Magnification x50



SEM of Zcore™ Porcine Xenograft Particulate

Magnification x50



NovaBone® Dental Putty & NovaBone® Morsels

The synthetic solution to bone regeneration



NovaBone® Putty in Cartridges

Cartridges

| | | |
|--------|---------|-------------|
| NA3620 | 0.5 cc | (2 per box) |
| NA3660 | 0.5 cc | (6 per box) |
| NA4640 | 0.25 cc | (4 per box) |

NEW

Cartridge Applicator Gun

NA4600 (Fits all cartridges)

NovaBone® Putty in Syringes

| | |
|--------|--------|
| NA1610 | 0.5 cc |
| NA1611 | 1.0 cc |
| NA1612 | 2.0 cc |



NovaBone® Morsels in Trays

NovaBone® Morsels is a particulate product made up of a crystalline composite calcium phosphosilicate (CPS). The particle size ranges from 0.5 mm – 1.0 mm with pore sizes ranging from 0.05 mm – 0.10 mm. The pore size results in slow and sustained resorption that is completed over a 12–18 month period. The morsels have an “osteostimulative” effect similar to NovaBone® Dental Putty.

| | | |
|--------|--------|-------------|
| EU0820 | 1.3 cc | (2 per box) |
| EU0822 | 4.0 cc | (2 per box) |



not actual size.

Overview of NovaBone® Dental Putty

Unique Formulation of NovaBone® Dental Putty

NovaBone® Putty is 100% synthetic and fully resorbable. It is composed of calcium phosphosilicate (CPS) particles in a bimodal size distribution combined with a polyethylene glycol and glycerine binder. The binder improves handling and aids in maintaining the space between the particles, which facilitates revascularization after implantation. The bioactive CPS component makes up 70% of the putty by volume. Upon implantation, the water soluble binder is absorbed within 24 to 72 hours, creating a 3-dimensional porous scaffold that facilitates diffusion of blood and tissue fluids through the matrix. The smaller CPS particles (32-125 µm) are more rapidly resorbed, providing the initial burst of Ca and P ions. Subsequently, the larger particles (90-710 µm) react, and being more resistant to resorption, continue the process of bone regeneration.

Osteostimulative & Osteoconductive

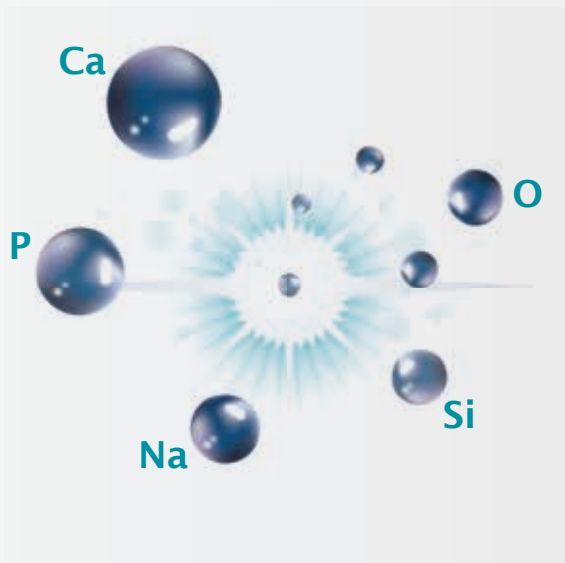
Unlike most synthetic grafts that are only osteoconductive, bioactive NovaBone® Putty also has an “osteostimulative” effect. After implantation, surface reactions result in absorption of the graft material, a controlled release of Si, Ca, and P ions, and concurrent new bone formation. These surface reactions result in an osteostimulative effect, defined as the stimulation of osteoblast proliferation *in vitro* as evidenced by

increased DNA content and elevated osteocalcin and alkaline phosphatase levels. *In vitro* gene array analysis has confirmed that when human primary osteoblasts are exposed to extracts of CPS, upregulation of several gene families occurs.

Superior Delivery System & Handling

NovaBone® Putty is available in multiple delivery options: trays, pre-filled syringes, and a unique industry-first cartridge delivery system. NovaBone® is the only graft material in the world that is available in disposable uni-dose cartridges. The cartridges simplify dispensing of the graft, especially in hard-to-reach areas, thus facilitating minimally invasive techniques (and hard-to-access defects such as gaps in immediate implant placement and crestal-approach sinus lifts). Cartridges are available in various sizes and are used in conjunction with NovaBone®’s cartridge delivery system; each cartridge holds 0.25 to 0.5 cc’s of putty.

NovaBone® Putty significantly simplifies bone graft handling and delivery. It is ready to use and extremely user friendly. It is pre-mixed, cohesive, moldable, and adaptable. NovaBone® Putty is stable at room temperature, does not require refrigeration, has a 4-year shelf-life, and appears radiodense on radiographs.

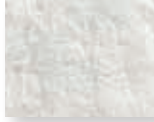




Cytoplast™ RTM Collagen

Type I bovine collagen membrane

shown actual size.



15 mm x 20 mm

RTM1520 (2 membranes per box)



20 mm x 30 mm

RTM2030 (2 membranes per box)



30 mm x 40 mm

RTM3040 (2 membranes per box)

Features & Benefits

Manufactured from highly purified type I bovine achilles tendon

Safe for the patient

26 – 38 week resorption time

Long predictable resorption time limits the risk of particle loss due to premature resorption

High tensile strength

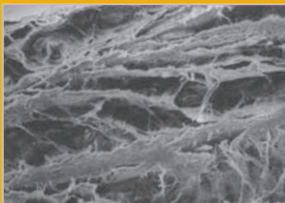
You can suture or tack the membrane in place without tearing

Cell occlusive

Prevents epithelial down growth

Optimized flexibility

Stiff enough for easy placement, yet easily drapes over ridge



Reconstituted fiber construction allows tissue integration, while preventing direct passage of epithelial cells.

“...I am impressed with its *handling*, but most importantly, I am impressed with its *results*.”

Jerald Rosenberg, DMD; Periodontist

Cytoplast™ RTMPlug, RTMFoam, & RTMTape

Absorbable Wound Dressing | Type I & Type III bovine collagen

shown actual size.

RTMPlug

1 cm x 2 cm

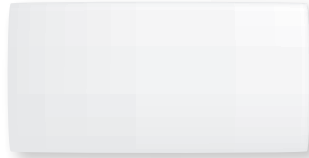
RTMPLUG10 (10 per box)



RTMFoam

2 cm x 4 cm (3 mm thick)

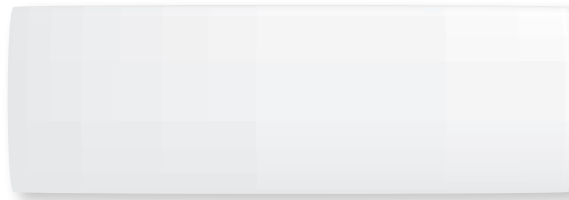
RTMFOAM10 (10 per box)



RTMTape

2.5 cm x 7.5 cm (1 mm thick)

RTMTAPE10 (10 per box)



Wound dressings will be essentially resorbed within 30 days

Applications:

- Surgical wounds
- Periodontal surgical wounds
- Extraction sites
- Dental sores
- Oral ulcers (non-infected or viral)
- Suture sites
- Burns
- Traumatic wounds

Vitala®

Porcine pericardium collagen membrane | Substantially resorbed in 26 weeks

shown actual size.



• 10 mm x 10 mm
VIT1010

vitala mini

NEW



15 mm x 20 mm
VIT1520



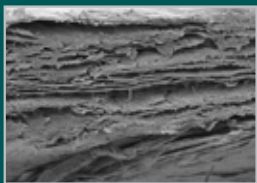
13 mm x 25 mm
VIT1325



20 mm x 30 mm
VIT2030



30 mm x 40 mm
VIT3040



1000x magnification



Excellent tensile strength



Supple and flexible

Features & Benefits

Natural

Manufactured using a proprietary protocol designed to maintain the natural, microporous, 3-layered architecture of the tissue without the need for cross-linking chemicals and agents

Durable

Designed to resist tearing during placement, Vitala® is naturally strong

Adaptable

The natural collagen structure provides a unique combination of supple handling and ideal defect adaptability. Because both sides are smooth, either side may be placed against the defect

Zmatrix™

Porcine peritoneum collagen membrane



A perfectly soft consistency that drapes without the usual self-adherence experienced with other natural collagen membranes



shown actual size.

NEW

- 15 mm x 20 mm
ZM1520



NEW

- 20 mm x 30 mm
ZM2030



NEW

- 30 mm x 40 mm
ZM3040



Features

Extracellular Components

Processed to preserve extracellular components including laminin, fibronectin, elastin, and glycosaminoglycans*

Easy to Handle

Designed to drape without adhering to itself

Elastic

Natural peritoneum collagen structure allows for elasticity

Natural, Native Collagen Membrane

*Zmatrix™ is a natural, native collagen membrane; cross-linking chemicals and agents are unnecessary. Proprietary processing technology allows preservation of collagen as well as extracellular components including laminin, fibronectin, elastin, and glycosaminoglycans.**

*Hoganson DM, Owens GE, O'Doherty EM, Bowley CM, Goldman SM, Harilal DO, Neville CM, Kronengold RT, Vacanti JP. Preserved extracellular matrix components and retained biological activity in decellularized porcine mesothelium. *Biomaterials*. 2010, 27: 6934-6940.

Cytoplast™ Technique

Ridge preservation without primary closure | U.S. Patent # 6,019,764

NEW

• Ridge Preservation Kit: Cytoplast™ Technique

KITRPT

- (1) 0.5 cc enCore® 70/30 Combination Allograft
- (1) Cytoplast™ TXT-200 Single dPTFE membrane
- (1) Cytoplast™ PTFE suture: USP 3/0; 16 mm RC needle



1. Preoperative view. To maximize the result of ridge preservation procedures, techniques designed to minimize trauma to the alveolar bone, such as the use of periostomes and surgical sectioning of ankylosed roots should be considered.

2. All soft tissue remnants should be removed with sharp curettage. Special care should be taken to remove all soft tissue at the apical extent of the socket of endodontically treated teeth. Bleeding points should be noted on the cortical plate. If necessary, decortication of the socket wall should be done with a #2 round burr to improve blood supply.

3. A subperiosteal pocket is created with a micro periosteal elevator or small curette, extending 3-5 mm beyond the socket margins on the palatal and the facial aspect of the socket. In the esthetic zone, rather than incising and elevating the interdental papilla, it is left intact and undermined in a similar fashion. The Cytoplast™ high-density PTFE membrane will be tucked into this subperiosteal pocket.

4. Particulate graft material can be placed into the socket with a syringe or with a curette. Ensure that the material is evenly distributed throughout the socket. However, the particles should not be densely packed to preserve ample space for blood vessel ingrowth.

5. The Cytoplast™ high-density PTFE membrane is trimmed to extend 3-5 mm beyond the socket walls and then tucked subperiosteally under the palatal flap, the facial flap and underneath the interdental papilla with a curette. The membrane should rest on bone 360° around the socket margins, if possible. Note that minimal flap reflection is necessary to stabilize the membrane.

6. Ensure that there are no folds or wrinkles in the membrane and that it lies passively over the socket. To prevent bacterial leakage under the membrane, take care to avoid puncturing the membrane, and do not overlap two adjacent pieces of membrane material.

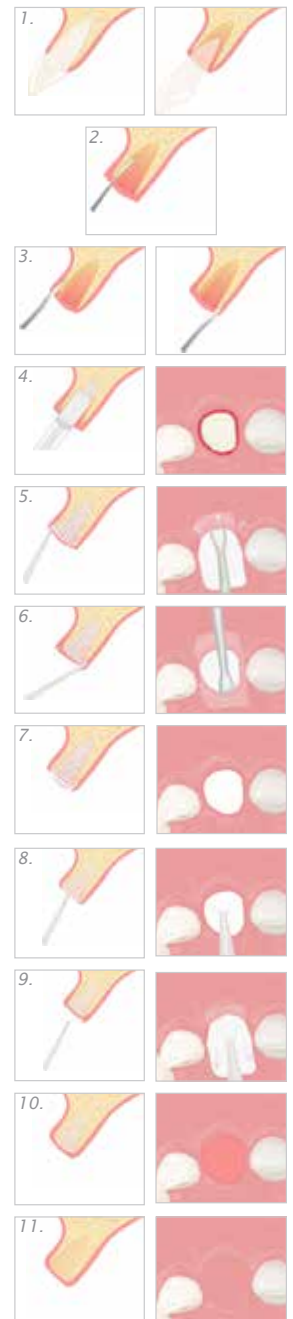
7. The membrane is further stabilized with a criss-cross Cytoplast™ PTFE suture. Alternatively, interrupted sutures may be placed. The PTFE sutures, which cause minimal inflammatory response, are left in place for 10 to 14 days.

8. The membrane is removed, non-surgically, in 21 to 28 days. Sockets with missing walls may benefit from the longer time frame. Topical anesthetic is applied, then the membrane is grasped with a tissue forcep and removed with a gentle tug.

9. Studies have shown that by 21-28 days there is a dense, vascular connective tissue matrix in the socket and early osteogenesis is observed in the apical 2/3 of the socket.

10. Immediately following membrane removal, a dense, highly vascular, osteoid matrix is observed. The natural position of the gingival margin has been left intact because primary closure was not necessary. The dense PTFE membrane has contained the graft material and prevented epithelial migration into the socket.

11. The socket at 6 weeks. Keratinized gingiva is beginning to form over the grafted socket. The natural soft tissue architecture is preserved, including the interdental papillae. New bone is beginning to form in the socket. Over the next 6 to 10 weeks, increasing thickness of trabeculae and mineralization will result in load bearing bone suitable for implant placement.



Cytoplast™ TXT-200 & TXT-200 Singles

Micro-textured, high-density PTFE membrane

Most popular
membrane for
socket grafting

TXT-200 Singles

12 mm x 24 mm

TXT1224-1 (1 membrane per box)

TXT1224 (10 membranes per box)

shown actual size.



TXT-200

25 mm x 30 mm

TXT2530-1 (1 membrane per box)

TXT2530 (4 membranes per box)



Features & Benefits

Non-Resorbable

Won't resorb prematurely – you dictate healing time

100% Dense (non-expanded) PTFE

Impervious to bacteria (pore size less than 0.3 µm)

Data on file

Purposely leave the membrane exposed

Preservation of the soft tissue architecture and keratinized mucosa

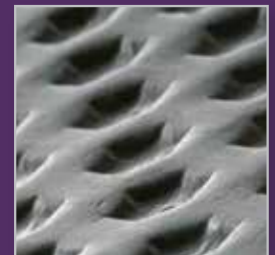
Soft tissue attaches, but doesn't grow through the membrane

Exposed membrane allows for non-surgical removal; no anesthesia required

Hexagonal dimples increase surface area

Designed to increase membrane stabilization

The patented Regentex™ surface helps stabilize the membrane and the soft tissue flap. Hexagonal surface dimples provide a textured surface that increases the area available for cellular attachment without increasing porosity. U.S. Patent # 5,957,690



"I always know, *in advance*, the results of my bone grafting when I use Cytoplast™ TXT-200 as a membrane. *Why bother with other membranes?*"

Mark Cohen, DDS; Periodontist



Cytoplast™ Titanium-Reinforced

Titanium-reinforced, high-density PTFE membrane

| | Ti-250 (250 µm thick) | Ti-150 (150 µm thick) | | Versatile Rectangular Shapes |
|--|------------------------------|--------------------------|---|--|
| <p>ANL 12 mm x 24 mm Designed for narrow single-tooth extraction sites, especially where one bony wall is missing</p> | Ti250ANL-1 Ti250ANL-2 | Ti150ANL-1 Ti150ANL-2 | (1 membrane per box) (2 membranes per box) | <p>These configurations can be trimmed to fit a variety of defects</p> |
| <p>ANL30 12 mm x 30 mm Designed for narrow single-tooth extraction sites, especially where one bony wall is missing</p> | Ti250ANL30-1 Ti250ANL30-2 | | (1 membrane per box) (2 membranes per box) | |
| <p>PS 20 mm x 25 mm Designed for large extraction sites and limited ridge augmentation</p> | Ti250PS-1 Ti250PS-2 | Ti150PS-1 Ti150PS-2 | (1 membrane per box) (2 membranes per box) | |
| <p>PL 25 mm x 30 mm Designed for large bony defects, including ridge augmentation</p> | Ti250PL-1 Ti250PL-2 | Ti150PL-1 Ti150PL-2 | (1 membrane per box) (2 membranes per box) | |

shown actual size.







**Ti-150 membranes are 40% thinner than Ti-250 membranes, providing clinicians another handling option in Cytoplast™ Titanium-Reinforced Membranes.*

| | Ti-250 (250 µm thick) | Ti-150 (150 µm thick) | | Versatile Rectangular Shapes |
|---|--------------------------|--------------------------|-----------------------|---|
| XL 30 mm x 40 mm Designed for very large bony defects, including ridge augmentation | Ti250XL-1 | Ti150XL-1 | (1 membrane per box) | These configurations can be trimmed to fit a variety of defects  |
| | Ti250XL-2 | Ti150XL-2 | (2 membranes per box) | |
| XLK 30 mm x 40 mm Designed for very large bony defects, including ridge augmentation | Ti250XLK-1 | Ti150XLK-1 | (1 membrane per box) | |
| | Ti250XLK-2 | Ti150XLK-2 | (2 membranes per box) | |
| K2 40 mm x 50 mm Designed for the largest bony defects, including ridge augmentation | Ti250K2-1 | Ti150K2-1 | (1 membrane per box) | |
| | Ti250K2-2 | Ti150K2-2 | (2 membranes per box) | |

shown actual size.

Cytoplast™ Titanium-Reinforced

Titanium-reinforced, high-density PTFE membrane

| | Ti-250 (250 μm thick) | Ti-150 (150 μm thick) | | Interproximal Shapes | |
|---|--------------------------|--------------------------|-----------------------|--|--|
| AS 14 mm x 24 mm Designed for single-tooth extraction sites, especially where one or more bony walls are missing | Ti250AS-1 | Ti150AS-1 | (1 membranes per box) | These configurations are designed to fit between existing teeth  | |
| | Ti250AS-2 | Ti150AS-2 | (2 membranes per box) | | |
| ATC 24 mm x 38 mm Designed for large extraction sites, including ridge augmentation | Ti250ATC-1 | Ti150ATC-1 | (1 membranes per box) | |  |
| | Ti250ATC-2 | Ti150ATC-2 | (2 membranes per box) | | |
| PTC 38 mm x 38 mm Designed for large bony defects, including ridge augmentation | Ti250PTC-1 | Ti150PTC-1 | (1 membranes per box) |  | |
| | Ti250PTC-2 | Ti150PTC-2 | (2 membranes per box) | | |
| PD 38 mm x 38 mm Designed for large bony defects, including distal extension of the posterior ridge | Ti250PD-1 | Ti150PD-1 | (1 membranes per box) |  | |
| | Ti250PD-2 | Ti150PD-2 | (2 membranes per box) | | |

shown actual size.

Cytoplast™ Titanium-Reinforced

Titanium-reinforced, high-density PTFE membrane

| | Ti-250 (250 μm thick) | Ti-150 (150 μm thick) | | Shapes with Fixation Points |
|---|--------------------------|--------------------------|-----------------------|---|
| <p>BL 17 mm x 25 mm Designed for large buccal defects</p> <p>PST 25 mm x 36 mm Designed for large extraction sites and limited ridge augmentation</p> <p>PLT 30 mm x 41 mm Designed for large bony defects, including ridge augmentation</p> | Ti250BL-1 | Ti150BL-1 | (1 membranes per box) | <p>These configurations are designed with fixation points outside of the defect area</p>  |
| | Ti250BL-2 | Ti150BL-2 | (2 membranes per box) | |
| | Ti250PST-1 | Ti150PST-1 | (1 membranes per box) | |
| | Ti250PST-2 | Ti150PST-2 | (2 membranes per box) | |
| | Ti250PLT-1 | Ti150PLT-1 | (1 membranes per box) | |
| | Ti250PLT-2 | Ti150PLT-2 | (2 membranes per box) | |
| <p>AP 13 mm x 19 mm Designed for periodontal defects in the anterior</p> <p>PP 13 mm x 18 mm Designed for periodontal defects in the posterior</p> | Ti250AP-1 | Ti150AP-1 | (1 membranes per box) | <p>Perio Shapes</p> <p>These configurations are designed for grafting perio defects</p>  |
| | Ti250AP-2 | Ti150AP-2 | (2 membranes per box) | |
| | Ti250PP-1 | Ti150PP-1 | (1 membranes per box) | |
| | Ti250PP-2 | Ti150PP-2 | (2 membranes per box) | |

shown actual size.

Osteo-Mesh™ TM-300

Titanium nitride-coated mesh



25 mm x 34 mm

TM2534 (provided non-sterile)



45 mm x 45 mm

TM4545 (provided non-sterile)

shown actual size.

Features & Benefits

Ultra-thin; 0.2 mm thick

Easier to get primary closure

0.5 mm pore size

Contains most graft materials

Safe, highly inert, non-reactive, non-stick nitride coating

- Improves tissue release upon removal
- High coating density with no pores to hold contaminants
- Will not stain or corrode
- Withstands acids, bases, solvents, and high temperatures
- Outstanding wear resistance

Repeatedly sterilized by autoclave

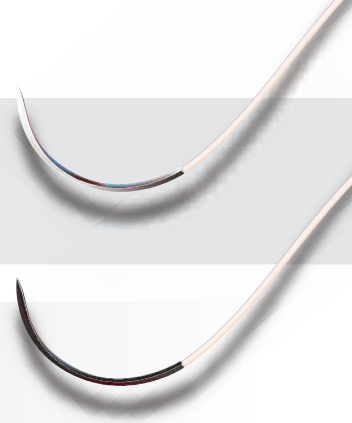
Unused portions are not wasted



Pore size of 0.5 mm contains graft material while allowing tissue ingrowth.

Cytoplast™ PTFE Suture

The soft monofilament suture



300 Series Stainless Steel Needles

All Cytoplast™ PTFE Sutures now have 300 series stainless steel needles, the gold standard material for suture needles. Tests comparing the new needles to previous needles show a substantial increase in needle strength, initial needle sharpness, and sustained needle sharpness. Tests show that the new 300 series needles are less likely to bend, require less force to penetrate, and maintain sharpness longer. Additionally, all silver needles now have longer and geometrically finer precision cutting edges. Data on file

| | |
|--|----------|
| Cytoplast™ undyed 19 mm precision RC 2/0 USP | CS0418 |
| Cytoplast™ undyed 16 mm precision RC 3/0 USP | CS0518 |
| Cytoplast™ undyed 19 mm precision RC 3/0 USP | CS051819 |

NEW

- **Cytoplast™ undyed 16 mm RC black needle 3/0 USP** CS0518BK
- **Cytoplast™ undyed 19 mm RC black needle 3/0 USP** CS051819BK

| | |
|--|-------------|
| Cytoplast™ undyed 13 mm TP 4/0 USP | CS0618PERIO |
| Cytoplast™ undyed 13 mm precision RC 4/0 USP | CS0618PREM |
| Cytoplast™ undyed 16 mm precision RC 4/0 USP | CS0618RC |

Features & Benefits

100% Medical Grade PTFE

Biologically inert

Monofilament

Doesn't wick bacteria

Soft (not stiff)

Comfortable for patients

Little to no package memory

Excellent handling, knots securely

Non-resorbable

Keeps the surgical site reliably closed

Needle Code Detail

RC 3/8 Circle Reverse Cutting



TP 1/2 Circle Round-Bodied



Resorba® Glycolon™

Absorbable, Monofilament

Glycolon™ is Resorba's® top selling suture material world-wide and is comprised of polyglycolic acid (PGA) and polycaprolactone (PCL). The monofilament structure provides excellent handling properties, does not wick bacteria, and allows for atraumatic passage through the tissue. Glycolon™ maintains 50% of its tensile strength for 11-13 days. In Vivo data on file

| | |
|--------------------------------|---------|
| Glycolon™ violet HRT18 4/0 USP | OD01101 |
| Glycolon™ violet DSM16 4/0 USP | OD01201 |
| Glycolon™ violet DSM18 4/0 USP | OD01203 |

| | |
|--|---------|
| Glycolon™ violet DSM16 black needle 5/0 USP | OD01211 |
| Glycolon™ violet DSM13 black needle 5/0 USP | OD01210 |
| Glycolon™ violet DSM18 black needle 5/0 USP | OD01212 |
| Glycolon™ violet GR22 black needle 5/0 USP | OD01300 |

| | |
|--------------------------------|---------|
| Glycolon™ violet HRT16 5/0 USP | OD01100 |
| Glycolon™ undyed DSM18 5/0 USP | OD01202 |
| Glycolon™ undyed DSM13 6/0 USP | OD01200 |
| Glycolon™ violet DSM13 6/0 USP | OD01213 |

Micro Sutures:

| | |
|----------------------------------|---------|
| • Glycolon™ violet HRT10 6/0 USP | OD01102 |
|----------------------------------|---------|

NEW

Needle Code Detail

| | |
|-----|------------------------------------|
| DSM | 3/8 Circle Premium Reverse Cutting |
| HRT | 1/2 Circle Round-Bodied Cutting |
| GR | Straight Round-Bodied |



Resorba® PGA Resorba™

Absorbable, Multifilament

PGA Resorba™ is an absorbable suture made of precision-braided filaments of polyglycolic acid coated with a special resorlactone coating to reduce surface friction when passing through tissue. The composition of PGA Resorba™ ensures predictable and moderately rapid resorption in tissue. PGA Resorba™ maintains 50% tensile strength for up to 21 days. In Vivo data on file

| | |
|-----------------------------------|---------|
| PGA Resorba™ violet HRT18 4/0 USP | OD03100 |
| PGA Resorba™ violet DSM18 4/0 USP | OD03202 |
| PGA Resorba™ violet ART25 4/0 USP | OD03600 |
| PGA Resorba™ violet HR17 5/0 USP | OD03500 |
| PGA Resorba™ violet DS18 5/0 USP | OD03400 |
| PGA Resorba™ violet DSM13 5/0 USP | OD03201 |
| PGA Resorba™ violet DSM13 6/0 USP | OD03200 |

NEW

Micro Sutures:

| | |
|-------------------------------------|---------|
| • PGA Resorba™ violet DSM11 6/0 USP | OD03203 |
| • PGA Resorba™ violet HRT10 6/0 USP | OD03101 |
| • PGA Resorba™ violet DSM7 6/0 USP | OD03205 |
| • PGA Resorba™ violet HRT7 7/0 USP | OD03102 |
| • PGA Resorba™ violet DSM7 7/0 USP | OD03206 |
| • PGA Resorba™ violet DSM11 7/0 USP | OD03204 |

Needle Code Detail

| | |
|-----|-------------------------------------|
| DSM | 3/8 Circle Premium Reverse Cutting |
| DS | 3/8 Circle Standard Reverse Cutting |
| HRT | 1/2 Circle Round-Bodied Cutting |
| HR | 1/2 Circle Round-Bodied |
| ART | Asymptotic Round-Bodied Cutting |



Resorba® Resolon™

Non-Absorbable, Monofilament

Resolon™ is initially like traditional nylon sutures until it undergoes a proprietary treatment process that results in a softer and more supple version of a nylon suture. Resolon™ provides clinicians a non-absorbable monofilament suture option that does not wick bacteria and has superior handling characteristics when compared to traditional nylon sutures.

| | |
|-----------------------------|---------|
| Resolon™ blue DSM16 4/0 USP | OD13205 |
| Resolon™ blue DSM13 4/0 USP | OD13202 |
| Resolon™ blue DSM18 4/0 USP | OD13207 |

Resolon™ blue DSM16 black needle 4/0 USP OD13215

| | |
|-----------------------------|---------|
| Resolon™ blue HS18 5/0 USP | OD13700 |
| Resolon™ blue DSM16 5/0 USP | OD13204 |
| Resolon™ blue DSM18 5/0 USP | OD13206 |
| Resolon™ blue DSM13 5/0 USP | OD13201 |

Resolon™ blue DSM16 black needle 5/0 USP OD13214
Resolon™ blue DSM13 black needle 5/0 USP OD13213
Resolon™ blue DSM18 black needle 5/0 USP OD13216

| | |
|-----------------------------|---------|
| Resolon™ blue DSM13 6/0 USP | OD13200 |
| Resolon™ blue DSM16 6/0 USP | OD13203 |

Resolon™ blue ART13 black needle 6/0 USP OD13610
Resolon™ blue DSM13 black needle 6/0 USP OD13212

Micro Sutures:

- **Resolon™ blue DSM11 black needle 6/0 USP** OD13210
- **Resolon™ blue DSM13 black needle 7/0 USP** OD13211

NEW

Needle Code Detail

| | |
|-----|-------------------------------------|
| DSM | 3/8 Circle Premium Reverse Cutting |
| HRT | 1/2 Circle Round-Bodied Cutting |
| HS | 1/2 Circle Standard Reverse Cutting |
| ART | Asymptotic Round-Bodied Cutting |



Resorba® Resolon Twist™

Non-Absorbable, Pseudo-Monofilament

Resolon Twist™ is a pseudo-monofilament made of braided nylon fibers that are coated with a nylon sheath. The pseudo-monofilament design offers clinicians a non-absorbable suture that handles similarly to a multifilament suture but, due to its outer nylon coating, has the advantage of reduced drag when being pulled through soft tissue.

| | |
|---|---------|
| Resolon Twist™ undyed HRT18 3/0 USP | OD12100 |
| Resolon Twist™ undyed HS15 4/0 USP | OD12700 |
| Resolon Twist™ undyed DSM18 4/0 USP | OD12201 |
| Resolon Twist™ undyed DSM16 4/0 USP | OD12200 |
| Resolon Twist™ undyed DSM18 black needle 4/0 USP | OD12210 |

Needle Code Detail

| | |
|-----|-------------------------------------|
| DSM | 3/8 Circle Premium Reverse Cutting |
| HRT | 1/2 Circle Round-Bodied Cutting |
| HS | 1/2 Circle Standard Reverse Cutting |



Master-Pin-Control

Revolutionary hybrid pin system

The Master-Pin-Control Bone Management® system is used for the fixation of membranes (absorbable and non-absorbable) in order to avoid micro-mobility of the graft. The pins have an extremely sharp tip that allows precise placement into cortical bone. Mini-threads on the pins make them a hybrid of a screw and pin. The threads on the pins increase the surface area of the shaft, resulting in pin stability, while also making removal of the pins possible with the included screwdriver.



Master-Pin-Control

BMPOO

- (34) Pins
- Master-Pin-Tray
- Screw Driver For Pin Removal
- Fixation Holder
- Initial Bur
- Twist Drills
 - (2) 0.6 mm twist drills
 - (2) 0.8 mm twist drills



Master-Pin-Basic

BMPBA

- (10) Pins
- Master-Pin-Tray
- Screw Driver For Pin Removal
- Fixation Holder
- Initial Bur
- Twist Drills
 - (2) 0.6 mm twist drills
 - (2) 0.8 mm twist drills



Replacement Pins

10 Pins

MP10

Decortication Bur

(2) 1.2 mm diameter x 4.0 mm long
decortication burs with drill stop 203S-012-RA



Pro-Fix™ Membrane Fixation

Precision Fixation System

Pro-fix™ Membrane Fixation Screws are designed as an attractive alternative to using tacks for membrane stabilization. Easy pick-up, solid stability of the screw during transfer to the surgical site, and easy placement make membrane fixation fast and easy.

Tray and organizer dial are designed to store all Pro-fix™ components including up to 100 membrane fixation, tenting, and bone fixation screws

Blades are designed to work universally with all Pro-fix™ membrane fixation, tenting, and bone fixation screws



Membrane Fixation Kit

PFMK20

- (1) Autoclavable Tecapro™ storage tray w/ screw organizer dial
- (1) Stainless steel driver handle
- (1) 76 mm cruciform driver blade
- (1) 56 mm cruciform driver blade
- (20) 1.5 x 3.0 mm self-drilling membrane fixation screws



Self-Drilling Membrane Fixation Screws

1.5 mm x 3.0 mm  actual size

- | | |
|-----------|---------|
| 5 screws | PFMF-5 |
| 10 screws | PFMF-10 |
| 20 screws | PFMF-20 |



Individual Components

- | | |
|---|--------|
| Stainless Steel Driver Handle | PFDH |
| 76 mm Cruciform Driver Blade | PFDB |
| 56 mm Cruciform Driver Blade | PFDB56 |
| Contra Angle Blade | PFDBCA |
| (24 mm long; 10 mm exposed distal length) | |
| 1.2 mm diam. Latch Type Pilot Drill | PFPD |
| Autoclavable Tecapro™ storage tray | PFT |



Tenting Kit

PFTK12

- (1) Autoclavable Tecapro™ storage tray w/ screw organizer dial
 - (1) Stainless steel driver handle
 - (1) 76 mm cruciform driver blade
 - (1) 56 mm cruciform driver blade
 - (4) 1.5 x 3.0 mm self-drilling tenting screws (7 mm total length: see below)
 - (4) 1.5 x 4.0 mm self-drilling tenting screws (8 mm total length: see below)
 - (4) 1.5 x 5.0 mm self-drilling tenting screws (9 mm total length: see below)
- For individual Pro-Fix™ driver and container components, see page 19.

Pro-fix™ Tenting Screws are designed with a self-drilling tip, polished neck, and broader head to maintain space under resorbable and non-resorbable membranes in horizontal and vertical bone regeneration procedures.

Self-Drilling Tenting Screws

1.5 mm x 3.0 mm

3.0 mm polished neck + 4.0 mm threaded portion = 7 mm total length

- 1 screw PFT3
- 5 screws PFT3-5



1.5 mm x 4.0 mm

4.0 mm polished neck + 4.0 mm threaded portion = 8 mm total length

- 1 screw PFT4
- 5 screws PFT4-5



1.5 mm x 5.0 mm

5.0 mm polished neck + 4.0 mm threaded portion = 9 mm total length

- 1 screw PFT5
- 5 screws PFT5-5



Fully Threaded Tenting Screws

1.5 mm x 8.0 mm

- 1 screw PFT8



1.5 mm x 10.0 mm

- 1 screw PFT10



Pro-Fix™ Bone Fixation

Precision Fixation System

Bone Fixation Kit

PFBK12

- (1) Autoclavable Tecapro™ storage tray w/ screw organizer dial
- (1) Stainless steel driver handle
- (1) 76 mm cruciform driver blade
- (1) 56 mm cruciform driver blade
- (1) 1.2 mm diameter latch type pilot drill
- (2) 1.5 x 8 mm bone fixation screws
- (4) 1.5 x 10 mm bone fixation screws
- (4) 1.5 x 12 mm bone fixation screws
- (2) 1.5 x 14 mm bone fixation screws

For individual Pro-Fix™ driver and container components, see page 19.

Pro-fix™ Bone Fixation Screws are designed with finer pitched, self-tapping threads that give the screws greater clamping force while using less driver torque. The screws' threads are equipped with a cutting flute that allows for easier insertion into harder bone. The screws are placed into a 1.2 mm pre-drilled pilot hole.

Self-Tapping Bone Fixation Screws

1.5 mm x 8 mm

1 screw

PFB8

5 screws

PFB8-5

1.5 mm x 10 mm

1 screw

PFB10

5 screws

PFB10-5

1.5 mm x 12 mm

1 screw

PFB12

5 screws

PFB12-5

1.5 mm x 14 mm

1 screw

PFB14

5 screws

PFB14-5

 actual size

 actual size

 actual size

 actual size



Micross

Minimally invasive cortical bone collector

Holds up to 0.25 cc at a time

4049 (1 sterile scraper per package)

Applications

- Extraction defects
- Periodontal defects
- Sinus lift procedures

Harvesting Sites

- Oblique external line with tunnel
- Lingual bone
- Sinus window
- Palate
- Zygomatic area with tunnel
- Small areas near the defect



not actual size.



The cannula's 5 mm external diameter allows the Micross to be easily inserted into tissue tunnels.

Smartscraper

Cortical bone collector and syringe in one

Holds up to 0.3 cc at a time

4890 (3 sterile scrapers per package)

Applications

- Extraction defects
- Periodontal defects
- Sinus lift procedures
- Ridge augmentation

Harvesting Sites

- Oblique external line w/ tunnel
- Ramus
- Mandibular symphysis
- Sinus window
- Lingual bone
- Zygomatic area
- Nasal spine
- Palate
- Small areas near the defect



not actual size.



The Smartscraper is opened with a simple movement. The syringe, in which the bone particulate has been collected, can then be used to place graft directly into areas with limited access.



Safescraper® Twist - Curve Version

Versatile cortical bone collector

Holds up to 2.5 cc at a time

3987 (3 sterile scrapers per package)



not actual size.

Applications

- Extraction defects
- Periodontal defects
- Sinus lift procedures
- Ridge augmentation

Harvesting Sites

- Oblique external line w/ tunnel
- Ramus
- Mandibular symphysis
- Sinus window
- Lingual bone
- Zygomatic area
- Nasal spine
- Palate
- Small areas near the defect

Features & Benefits

Ergonomic design

Cortical bone harvesting is easily achieved from intraoral sites with a minimally invasive approach

2.5 cc collection chamber

Large amounts of bone may be collected at once

Bone is collected with coagulated blood

Graft has high biological plasticity, making it easy to handle and mold

Superior harvesting method

The manual harvesting technique allows graft to retain cell viability that can be compromised with other harvesting techniques that mill, grind, or potentially overheat bone

Safe

The disposable scraper is sterile and allows clinicians to harvest autogenous bone, which eliminates any chance of disease transmission

A 160° blade allows clinicians to collect bone from any bony surface.



The Safescraper® Twist's transparent chamber holds up to 2.5 cc of bone, which can be used alone or mixed in combination with other graft materials.



"This unit works really well and has nice contours to use in difficult harvesting sites."

Tom Faerber, DMD; Oral and Maxillofacial Surgeon

Selection of Applicable References

Membrane References

- Changi KK, Greenstein G. Cytocone Procedure: Conservative Repair of a Buccal Plate Dehiscence in Preparation for Implant Placement. *Compend Contin Educ Dent*. 2018 May;39(5):294-299.
- Plonka AB, Urban IA, Wang HL. Decision Tree for Vertical Ridge Augmentation. *Int J Periodontics Restorative Dent*. 2018 Mar/Apr;38(2):269-275.
- Johnson M, Baron D. Tunnel Access for Guided Bone Regeneration in the Maxillary Anterior. *Clinical Advances in Periodontics*. Vol 8. No 1. March 2018.
- Bakhshalian N, Freire M, Min S, Wu I, Zadeh HH. Retrospective Analysis of the Outcome of Ridge Preservation with Anorganic Bovine Bone Minerals: Microcomputed Tomographic Assessment of Wound Healing in Grafted Extraction Sockets. *Int J Periodontics Restorative Dent*. 2018 Jan/Feb;38(1):103-111.
- Urban I, Traxler H, Romero-Bustillos M, Farkasdi S, Barteo B, Baksa G, Avila-Ortiz G. Effectiveness of Two Different Lingual Flap Advancing Techniques for Vertical Bone Augmentation in the Posterior Mandible: A Comparative, Split-Mouth Cadaver Study. *Int J Periodontics Restorative Dent*. 2018 Jan/Feb;38(1):35-40.
- Johnson TM, Berridge JP, Baron D. Protocol for Maintaining Alveolar Ridge Volume in Molar Immediate Implant Sites. *Clinical Advances in Periodontics*. November 2017, Vol. 7, No. 4, Pages 207-214
- Pistilli R, Checchi V, Sammartino G, Simion M, Felice P. Safe New Approach to the Lingual Flap Management in Mandibular Augmentation Procedures: The Digitoclastic Technique. *Implant Dent*. 2017 Oct;26(5):790-795.
- Urban IA, Monje A, Lozada J, Wang HL. Principles for Vertical Ridge Augmentation in the Atrophic Posterior Mandible: A Technical Review. *Int J Periodontics Restorative Dent*. 2017 Sep/Oct;37(5):639-645.
- Cucchi A, Vignudelli E, Napolitano A, Marchetti C, Corinaldesi G. Evaluation of complication rates and vertical bone gain after guided bone regeneration with non-resorbable membranes versus titanium meshes and resorbable membranes. A randomized clinical trial. *Clin Implant Dent Relat Res*. 2017 Jul 26. (epub ahead of print).
- Gultekin BA, Cansiz E, Borahan MO. Clinical and 3-Dimensional Radiographic Evaluation of Autogenous Iliac Block Bone Grafting and Guided Bone Regeneration in Patients With Atrophic Maxilla. *J Oral Maxillofac Surg*. 2017 Apr;75(4):709-722.
- Laurito D, Lollobrigida M, Gianni F, Bosco S, Lamazza L, De Biase A. Alveolar Ridge Preservation with nc-HA and d-PTFE Membrane: A Clinical, Histologic, and Histomorphometric Study. *Int J Periodontics Restorative Dent*. 2017 Mar/Apr;37(2):283-290.
- Walker CJ, Prihoda TJ, Mealey BL, Lasho DJ, Noujeim M, Huynh-Ba G. Evaluation of healing at molar extraction sites with and without ridge preservation: a randomized controlled clinical trial. *J Periodontol*. 2017 Mar;88(3):241-249.
- Laurito D, Cugnetto R, Lollobrigida M, Guerra F, Vestri A, Gianni F, Bosco S, Lamazza L, De Biase A. Socket Preservation with d-PTFE Membrane: Histologic Analysis of the Newly Formed Matrix at Membrane Removal. *Int J Periodontics Restorative Dent*. 2016 Nov/Dec;36(6):877-883.
- Ronda M, Stacchi C. A Novel Approach for the Coronal Advancement of the Buccal Flap. *Int J Periodontics Restorative Dent*. 2015 Nov-Dec;35(6):795-801.
- Urban IA, Monje A, Wang HL. Vertical Ridge Augmentation and Soft Tissue Reconstruction of the Anterior Atrophic Maxillae: A Case Series. *Int J Periodontics Restorative Dent*. 2015 Sep-Oct;35(5):613-23.
- Al-Hezaimi K, Iezzi G, Rudek I, Al-Daafas A, Al-Hamdan K, Al-Rasheed A, Javed F, Piattelli A, Wang HL. Histomorphometric Analysis of Bone Regeneration Using a Dual Layer of Membranes (dPTFE Placed Over Collagen) in Fresh Extraction Sites: A Canine Model. *J Oral Implantol*. 2015 Apr;41(2):188-95.
- Borg TD, Mealey BL. Histologic healing following tooth extraction with ridge preservation using mineralized versus combined mineralized-demineralized freeze-dried bone allograft: a randomized controlled clinical trial. *J Periodontol*. 2015 Mar;86(3):348-55.
- Cucchi A, Ghensi P. Vertical Guided Bone Regeneration using Titanium-reinforced d-PTFE Membrane and Prehydrated Corticocancellous Bone Graft. *Open Dent J*. 2014 Nov 14;8:194-200.
- Ronda M, Rebaudi A, Torelli L, Stacchi C. Expanded vs. dense polytetrafluoroethylene membranes in vertical ridge augmentation around dental implants: a prospective randomized controlled clinical trial. *Clin Oral Implants Res*. 2014 Jul;25(7):859-66.
- Barboza EP, Stutz B, Mandarino D, Rodrigues DM, Ferreira VF. Evaluation of a dense polytetrafluoroethylene membrane to increase keratinized tissue: a randomized controlled clinical trial. *Implant Dent*. 2014 Jun;23(3):289-94.
- Urban IA, Lozada JL, Jovanovic SA, Nagursky H, Nagy K. Vertical Ridge Augmentation with Titanium-Reinforced, Dense-PTFE Membranes and a Combination of Particulated Autogenous Bone and Anorganic Bovine Bone-Derived Mineral: A Prospective Case Series in 19 Patients. *Int J Oral Maxillofac Implants*. 2014 Jan-Feb;29(1):185-93.
- Carbonell JM, Martin IS, Santos A, Pujol A, Sanz-Moliner JD, Nart J. High-density polytetrafluoroethylene membranes in guided bone and tissue regeneration procedures: a literature review. *Int J Oral Maxillofac Surg*. 2014 Jan;43(1):75-84.
- Vittorini Orgeas G, Clementini M, De Risi V, de Sanctis M. Surgical techniques for alveolar socket preservation: a systematic review. *Int J Oral Maxillofac Implants*. 2013 Jul-Aug;28(4):1049-61.
- Al-Hezaimi K, Rudek I, Al-Hamdan KS, Javed F, Nooh N, Wang HL. Efficacy of using a dual layer of membrane (dPTFE placed over collagen) for ridge preservation in fresh extraction sites: a micro-computed tomographic study in dogs. *Clin Oral Implants Res*. *Clin Oral Implants Res*. 2013 Oct;24(10):1152-7.
- Waasdorp, J, Feldman, S. Bone regeneration around immediate implants utilizing a dense polytetrafluoroethylene membrane without primary closure: A report of 3 cases. *J Oral Implantol*. 2013;39:355-361.

Selection of Applicable References

- Annibaldi S, Bignozzi I, Sammartino G, La Monaca G, Cristalli MP. Horizontal and Vertical Ridge Augmentation in Localized Alveolar Deficient Sites: A Retrospective Case Series. *Implant Dent*. 2012 Jun;21(3):175-185.
- Levin B. Immediate temporization of immediate implants in the esthetic zone: Evaluating survival and bone maintenance. *Compendium* 2011;32:52-62.
- Barboza EP, Stutz B, Ferreira VF, Carvalho W. Guided bone regeneration using nonexpanded polytetrafluoroethylene membranes in preparation for dental implant placements – A report of 420 cases. *Implant Dent*. 2010;19:2-7.
- Zafiropoulos GG, Deli G, Bartee BK, Hoffman O. Single-tooth implant placement and loading in fresh and regenerated extraction sockets. Five-year results: A case series using two different implant designs. *J Periodontol*. 2010;81:604-615.
- Zafiropoulos GG, Hoffmann O, Kasaj A, Willershausen B, Deli G, Tatakis DN. Mandibular molar root resection versus implant therapy: A retrospective nonrandomized study. *J Oral Implantol*. 2009;35:52-62.
- Fotek PD, Neiva RF, Wang HL. Comparison of dermal matrix and polytetrafluoroethylene membrane for socket bone augmentation: A clinical and histologic study. *J Periodontol*. 2009;80:776-785.
- Hoffman O, Bartee BK, Beaumont C, Kasaj A, Deli G, Zafiropoulos GG. Alveolar bone preservation in extraction sockets using non-resorbable dPTFE membranes: A retrospective non-randomized study. *J Periodontol*. 2008;79:1355-1369.
- Barber HD, Lignelli J, Smith BM, Bartee BK. Using a dense PTFE membrane without primary closure to achieve bone and tissue regeneration. *J Oral Maxillofac Surg*. 2007;65:748-752.
- Walters SP, Greenwell H, Hill M, Drisko C, Pickman K, Scheetz JP. Comparison of porous and non-porous teflon membranes plus a xenograft in the treatment of vertical osseous defects: A clinical reentry study. *J Periodontol*. 2003;74:1161-1168.
- Bartee BK. Extraction site reconstruction for alveolar ridge preservation. Part 1: Rationale and material selection. *J Oral Implantol*. 2001;27:187-193.
- Bartee BK. Extraction site reconstruction for alveolar ridge preservation. Part 2: Membrane-assisted surgical technique. *J Oral Implantol*. 2001;27:194-197.
- Lamb JW III, Greenwell H, Drisko C, Henderson RD, Scheetz JP, Rebitski G. A comparison of porous and non-porous teflon membranes plus demineralized freeze-dried bone allograft in the treatment of class II buccal/lingual furcation defects: A clinical reentry study. *J Periodontol*. 2001;72:1580-1587.
- Bartee BK. Evaluation of a new polytetrafluoroethylene guided tissue regeneration membrane in healing extraction sites. *Compend Contin Educ Dent* 1998;19:1256-1264.
- Bartee BK, Carr JA. Evaluation of a high-density polytetrafluoroethylene (n-PTFE) membrane as a barrier material to facilitate guided bone regeneration in the rat mandible. *J Oral Implantol*. 1995;21:88-95.
- Bartee BK. The use of high-density polytetrafluoroethylene membrane to treat osseous defects: Clinical reports. *Implant Dent*. 1995;4:21-26.

Combination Allograft References

- Chan HL, Benavides E, Tsai CY, Wang HL. A Titanium Mesh and Particulate Allograft for Vertical Ridge Augmentation in the Posterior Mandible: A Pilot Study. *Int J Periodontics Restorative Dent*. 2015 Jul-Aug;35(4):515-22.
- Borg TD, Mealey BL. Histologic healing following tooth extraction with ridge preservation using mineralized versus combined mineralized-demineralized freeze-dried bone allograft: a randomized controlled clinical trial. *J Periodontol*. 2015 Mar;86(3):348-55.

Selection of Applicable References

Suture References

- Silverstein LH, Kurtzman GM, Shatz PC. Suturing for optimal soft-tissue management. *J Oral Implantol*. 2009;35:82-90.
- Silverstein LH. Suturing principles: Preserving needle edges during dental suturing. *PPAD*. 2005;17:562-564.

Bone Scraper References

- Trombelli L, Farina R, Marzola A, Iтро A, Calura G. GBR and autogenous cortical bone particulate by bone scraper for alveolar ridge augmentation: A 2 case report. *Int J Oral Maxillofac Implants*. 2008;23:111-116.
- Zaffe D, D'Avenia F. A novel bone scraper for intraoral harvesting: A device for filling small bone defects. *Clin Oral Implants Res*. 2007;18:525-533.
- Trombelli L, Annunziata M, Belardo S, Farina R, Scabbia A, Guida L. Autogenous bone graft in conjunction with enamel matrix derivative in the treatment of deep periodontal intra-osseous defects: A report of 13 consecutively treated patients. *J Clin Periodontol*. 2006;33:69-75.

NovaBone® References

- Mahesh L, Venkataraman N, Shukla S, Prasad H, Kotsakis GA. Alveolar ridge preservation with the socket-plug technique utilizing an alloplastic putty bone substitute or a particulate xenograft: a histological pilot study. *J Oral Implantol*. 2015 Apr;41(2):178-83.

- Kotsakis GA, Mazor Z. A simplified approach to the minimally invasive antral membrane elevation technique utilizing a viscoelastic medium for hydraulic sinus floor elevation. *Oral Maxillofac Surg*. 2015 Mar;19(1):97-101.

- Ioannou AL, Kotsakis GA, Kumar T, Hinrichs JE, Romanos G. Evaluation of the bone regeneration potential of bioactive glass in implant site development surgeries: a systematic review of the literature. *Clin Oral Investig*. 2015 Mar;19(2):181-91.

- Babbush CA, Kanawati A. Clinical evaluation of 262 osseointegrated implants placed in sites grafted with calcium phosphosilicate putty: a retrospective study. *J Oral Implantol*. 2015 Feb;41(1):63-9.

- Kotsakis GA, Joachim FP, Saroff SA, Mahesh L, Prasad H, Rohrer MD. Histomorphometric evaluation of a calcium-phosphosilicate putty bone substitute in extraction sockets. *Int J Periodontics Restorative Dent*. 2014 Mar-Apr;34(2):233-9.

- Kher U, Mazor Z, Stanitsas P, Kotsakis GA. Implants placed simultaneously with lateral window sinus augmentation using a putty alloplastic bone substitute for increased primary implant stability: a retrospective study. *Implant Dent*. 2014 Aug;23(4):496-501.

- Kotsakis GA, Salama M, Chrepa V, Hinrichs JE, Gaillard P. A randomized, blinded, controlled clinical study of particulate anorganic bovine bone mineral and calcium phosphosilicate putty bone substitutes for socket preservation. *Int J Oral Maxillofac Implants*. 2014 Jan-Feb;29(1):141-51.

- Jodia K, Sadhwani BS, Parmar BS, Anclia S, Sadhwani SB. Sinus elevation with an alloplastic material and simultaneous implant placement: a 1-stage procedure in severely atrophic maxillae. *J Maxillofac Oral Surg*. 2014 Sep;13(3):271-80.

- Kim DM, Nevins M, Camelo M, Nevins ML, Schupbach P, Rodrigues VS, Fiorellini JP. Human histologic evaluation of the use of the dental putty for bone formation in the maxillary sinus: case series. *J Oral Implantol*. 2012 Aug;38(4):391-8.

- Lanka M, Salama M, Kurtzman, Gregori. Socket grafting with calcium phosphosilicate alloplast putty: a histomorphometric evaluation. *Compend Contin Educ Dent*. 2012 Sep;33(8):e109-15.

- Gonshor A, Saroff S, Anderegg C, Joachim F, Charon J, Prasad H, Katta S. Histologic and Clinical Evaluation of a Bioactive Calcium Phosphosilicate Bone Graft Material in Postextraction Alveolar Sockets. *Int J Oral Imp and Clin Res*. 2011;2(2):79-84.

- Hench L. The story of Bioglass. *J Mater Sci Mater Med*. 2006 Nov;17(11):967-78.

- Xynos ID, Edgar AJ, Buttery LD, Hench LL, Polak JM. Gene-expression profiling of human osteoblasts following treatment with the ionic products of Bioglass 45S5 dissolution. *J Biomed Mater Res*. 2001 May;55(2):151-7.

OSTEOGENICS
B I O M E D I C A L

4620 71st Street | Building 78-79
Lubbock, TX 79424
www.osteogenics.com

| | |
|------------------|--|
| CUSTOMER SERVICE | 1.888.796.1923 U.S. and Canada only |
| INTERNATIONAL | +1 806.796.1923 |
| FAX | 806.796.0059 |
| EMAIL | sales@osteogenics.com |



4620 71st Street | Building 78-79
Lubbock, TX 79424
www.osteogenics.com

CUSTOMER SERVICE 1.888.796.1923 U.S. and Canada only
INTERNATIONAL +1 806.796.1923
FAX 806.796.0059
EMAIL sales@osteogenics.com

Revised 9.18 | OBI MKT-003