Trusted Clinical Solutions

Biomaterials

Portfolio

ZimVie


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The Power of Puros® Allografts

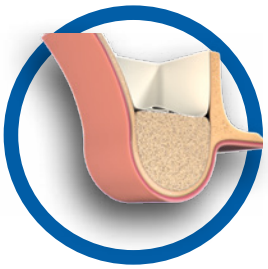
Clinicians around the globe have counted on the Puros® family of allografts for hard tissue augmentation procedures for years.

The brand's renowned reputation is based on:*

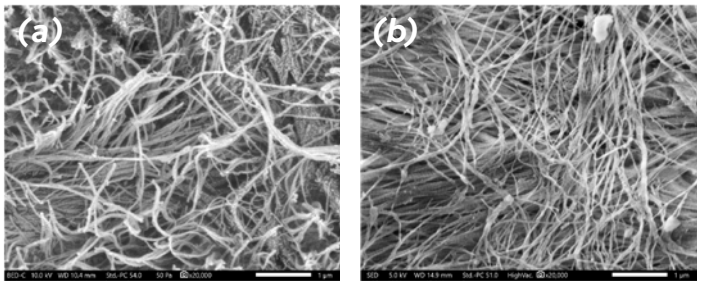
- Predictable processing and configuration
- Clinical use in dentistry since 1999[1-3]
- Collectively backed up by more than 400 scientific articles[1-5]
- Supporting creation of healthy, vital bone[6-9]
- Predictable remodeling shown in human clinical studies[10-15]
- Ease of use and terminal sterilization[16]
- Quick hydration, five-year shelf life, and storage at room temperature[16]

More Studies Than Any Other Allograft[5]

Up to **23.7%** more vital bone formation with Puros Cancellous Particulate Allograft and Puros Cortical Particulate Allograft (1:1 ratio) – compared to freeze-dried allograft bone in sinus lift procedures.[20]



Visual Comparison of Puros Cancellous Allograft to Natural Bone in SEM Image



The collagen fibrils are visible for Puros Cancellous Allograft following Tutoplast Processing and are similar to those seen in natural bone.[19]

Fig. 1

SEM images at 20,000x magnification of:
(a) Bone**
(b) Puros Cancellous Allograft

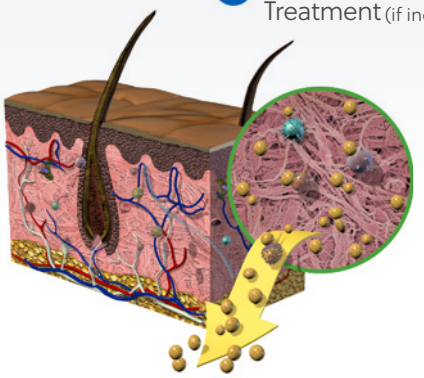
** Osteoclast-resorbed surface of human bone received unfixed, disinfected in 70% ethanol, air-dried, and rinsed in PBS.

*Claims referenced apply to Tutoplast processed grafts. [1] Gambini A. et al. Chir Organi Mov (1999) 84:359-66. [2] Rocci A. et al. Quintessence International, Edizione Italiana (1999) 15:373-380. [3] Semergidis T. et al. Int. J. Oral Maxillofac Surg (1999) 28:91. [4] Baldi D. et al. Implant Dent (2019) 28:472-477. [5] Pubmed search (July 6th. 2020). [6] Tsao Y.P. et al. J Periodontol (2006) 77:416-25. [7] Leonetti J.A. et al. Implant Dent (2003) 12:217-226. [8] Keith J.D. et al. Int J Periodont Rest (2006) 26:321-327. [9] La Monaca G. et al. Case reports in dentistry (2019) 8, Article ID 6725351. [10] Froum S.J. et al. Int J Periodont Rest (2006) 26:543-51. [11] Noumbissi S.S. et al. J Oral Implantol (2005) 31:171-9. [12] Block M.S. et al. J Am Dent Assoc (2002) 133:1631-1638. [13] Minichetti J.C. et al. J Oral Implantol (2004) 30:74-82. [14] Schmitt C.M. et al. Clin Oral Implants Res (2013) 24:576-85. [15] Soardi C.M. et al. Int J Oral Maxillofac Implants (2016) 31:352-8. [16] Puros Allograft IFU latest revision. [17] Data on File with RTI Surgical Inc. [18] Tadic D. et al. Biomaterials (2004) 25:987-94. [19] Ajami E, et al. J Oral Implantol (2023) 38: 169-180. [20] Monje A. et al. Int J Oral Maxillofac Implants (2017) 32:121-127.

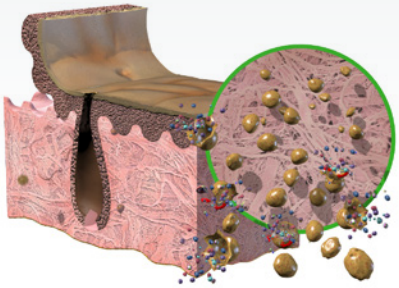
The Proprietary Tutoplast® Process

In 1969 the Tutoplast Tissue Sterilization Process was developed to sterilize and preserve tissue for implantation. More than 11 million implants have been sterilized through the Tutoplast Process with zero confirmed incidence of implant-associated infection.[17]

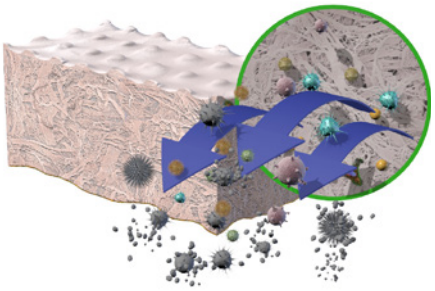
1 Alkaline Treatment (if indicated)



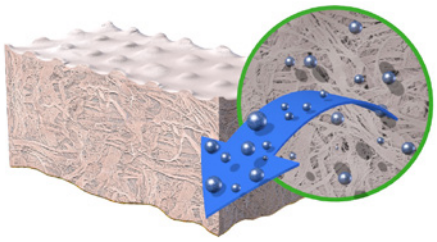
2 Osmotic Treatment



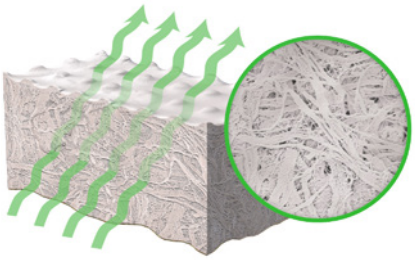
3 Oxidative Treatment



4 Solvent Treatment



5 Irradiation



The Benefits of the Multi-Step Tutoplast Process

For allograft bone grafts, the process preserves the valuable bone mineral, collagen matrix, and tissue integrity[18] while inactivating pathogens and gently removing unwanted materials, such as cells, antigens, and viruses[17] – resulting in predictable, reliable, sterile, and safe tissue.[17]

*Images depict dermal processing

Puros® Cancellous

Particulate Allograft

With a history of well-documented clinical results, Puros Cancellous is an easy-to-handle choice for predictable bone reconstruction and acts as an osteoconductive scaffold for new bone formation.[1-8]

Clinical Evidence

- Up to 127% more vital bone formation compared to non-resorbable xenograft in sinus-lift procedures[2, 3, 9]
- Newly formed vital bone after three to five months[4,8,10] in extraction sockets
- 56% more graft-to-bone contact compared to non-resorbable xenograft[3]
- 9.7 mm vertical gain after four to five months when using Puros Allograft particulate with tenting screws[11]
- Retains osteoconductive properties due to the preservation of the natural bone matrix collagen and mineral composition, trabecular pattern, and original porosity;[1-6, 8, 12-14] enabling the ingrowth of vascular and cellular connective tissue[4]

Clinically successful in procedures for:

- Repair of periodontal bone and furcation defects[1, 6, 15]
- Reconstruction of extraction sockets[4, 7, 8, 10]
- Reconstruction of gaps around block grafts[12, 13]
- Horizontal and vertical alveolar ridge augmentation[16-19]
- Sinus augmentation[2, 9, 20, 21]

PUROS CANCELLOUS PARTICULATE ALLOGRAFT

Item Number	Description
68210	Puros Cancellous Particulate, 0.25 – 1 mm / 0.5 cc
68211	Puros Cancellous Particulate, 0.25 – 1 mm / 1 cc
68209	Puros Cancellous Particulate, 0.25 – 1 mm / 2 cc
68212	Puros Cancellous Particulate, 1 – 2 mm / 0.5 cc
68213	Puros Cancellous Particulate, 1 – 2 mm / 1 cc
68214	Puros Cancellous Particulate, 1 – 2 mm / 2 cc

Shelf-life: Five (5) years

[1] Tsao Y.P. et al. J Periodontol (2006) 77:416-25. [2] Froum S.J. et al. Int J Periodontics Restorative Dent (2006) 26:543-51. [3] Noumbissi S.S. et al. J Oral Implantol (2005) 31:171-9. [4]Minichetti J.C. et al. J Oral Implantol (2004) 30:74-82. [5] Data on File with Rti Surgical Inc. [6] Dayi E. et al. J Int Med Res (2002) 30:168-73. [7] Baldi D. et al. Implant Dent (2019) 28:472-477. [8] Block M.S. et al. J Am Dent Assoc (2002) 133:1631-1638. [9] Schmitt C.M. et al. Clin Oral Implants Res (2013) 24:576-85. [10] Beck T.M. et al. J Periodontol (2010) 81:1765-72. [11] Le B. et al. J Oral Maxillofac Surg (2010) 68:428 435. [12] Keith J.D. et al.Int J Periodontics Restorative Dent (2006) 26:321-327. [13] Leonetti J.A. et al. Implant Dent. (2003) 12:217-226. [14] Tadic D. et al. Biomaterials (2004) 25:987-94. [15] Reddy B. et al. Journal of International Society of Preventive and Community Dentistry (2016) 6:248-253. [16]Block M.S. et al. J Oral Maxillofac Surg (2004) 62:67-72. [17] Le B. et al. Implant Dent (2008) 17:40-50. [18] Ronda M. et al. Clin Oral Implants Res (2014) 25:859-66. [19] La Monaca G. et al. Case reports in dentistry (2019) 8, Article ID 6725351. [20] Soardi C.M. et al. Int J Periodontics Restorative Dent (2020) 40:757–764. [21] Monje A. et al. Int J Oral Maxillofac Implants (2017) 32:121-127.

Puros® Cortical

Particulate Allograft

Puros Cortical can be used in space maintenance and volume enhancement procedures.[1, 2] It is slow-resorbing and maintains an open network for the proliferation of bone-forming cells.[1, 3]

Clinical Evidence

- Without sacrificing ridge contour, cortical particles remodel into a dense, lamellar structure as well as viable bone – with similar density to native bone[4]
- 2 mm in buccal bone thickness when used in a "sandwich" technique for the treatment of localized buccal dehiscence defects[4]
- 40% mineralized bone and 0.47% residual grafting materials after four months healing time in sinus lift procedures[5]
- Clinical and radiographic graft stability after five years follow up in sinus lift procedures[6]
- Reduced vertical and horizontal bone resorption when used in immediate implant placement extraction sites[7]

Clinically successful in procedures for:

- Sinus augmentation[3, 5, 8, 9]
- Alveolar ridge augmentation[2, 10, 11]
- "Tenting" and "Sandwich" grafting techniques[12-16]
- Immediate implant post extraction sockets[7]

PUROS CORTICAL PARTICULATE ALLOGRAFT

Item Number	Description
68271	Puros Cortical Particulate, 0.5 – 1 mm / 0.5 cc
68272	Puros Cortical Particulate, 0.5 – 1 mm / 1 cc
68273	Puros Cortical Particulate, 0.5 – 1 mm / 2 cc
68274	Puros Cortical Particulate, 1 – 2 mm / 0.5 cc
68275	Puros Cortical Particulate, 1 – 2 mm / 1 cc
68276	Puros Cortical Particulate, 1 – 2 mm / 2 cc

Shelf-life: Five (5) years

[1] Wang H.L. et al. Implant Dent (2006) 15:8-17. [2] El Chaar E. et al. Int J Periodontics Restorative Dent (2019) 39:491-500. [3] Berberi A. et al. Journal of Maxillofacial and Oral Surgery (2015) 14:624-629. [4] Park S.H. et al. Int J Periodont. Rest (2006) 26:589-95. [5] Berberi A. et al. Implant Dent. (2016) 25:353-60. [6] Annibali S. et al. Implant Dent (2011) 20:445-54. [7] Orti V. et al. J Periodontal Implant Sci (2016) 46:291-302. [8] Soardi C.M. et al. Int J Periodontics Restorative Dent (2020) 40:757–764. [9] Monje A. et al. Int J Oral Maxillofac Implants (2017) 32:121-127. [10] Abed P.F. et al. J Int Acad Periodontol (2020) 22:11-20. [11] Wen S. et al. Int J Periodontics Restorative Dent (2018) 38:79. [12] Leong D.J. et al. Implant Dent (2015) 24:4-12. [13] Fu J.H. et al. Clin Oral Implants Res (2014) 25:458-67. [14] Fu J.H. et al. Clin Oral Implants Res (2014) 26:1150-7. [15] Fu J.-H. et al. Clin Adv Periodontics (2012) 2:172-177. [16] Lee A. et al. Implant Dent (2009) 18:282-90.

Puros® Cortico-Cancellous

Particulate Allograft

An anatomic-based mix of 70% cortical and 30% cancellous bone particulate. This mixture combines the clinical advantages of both Puros Cortical and Puros Cancellous Particulate Allograft materials.

Key Attributes

- Ideal for filling large and small volume bony voids
- Retains osteoconductive properties due to the preservation of the natural bone matrix collagen and mineral composition, trabecular pattern, and original porosity[1]
- Pre-mixed formulation, no need to mix on site
- Easy handling – quick hydration, five-year shelf life, and room-temperature storage
- Bone from single donor[4]

Clinically successful in procedures for:

- Maxillary sinus floor augmentation[1]
- Vertical ridge augmentation around dental implants[2]
- Immediate implant placement into extraction sockets[3]

PUROS CORTICO-CANCELLOUS PARTICULATE ALLOGRAFT

Item Number	Description
68800	Puros Cortico-Cancellous Particulate, 0.5 cc / 0.25 – 1 mm
68801	Puros Cortico-Cancellous Particulate, 1.0 cc / 0.25 – 1 mm
68802	Puros Cortico-Cancellous Particulate, 2.0 cc / 0.25 – 1 mm
68803	Puros Cortico-Cancellous Particulate, 0.5 cc / 1 – 2 mm
68804	Puros Cortico-Cancellous Particulate, 1.0 cc / 1 – 2 mm
68805	Puros Cortico-Cancellous Particulate, 2.0 cc / 1 – 2 mm

[1] Soardi et al. (2011). Atrophic maxillary floor augmentation by mineralized human bone allograft in sinuses of different size: an histologic and histomorphometric analysis. Clin Oral Implants Res 22, 560-566. [2] Ronda et al. (2013). Expanded vs. dense polytetrafluoroethylene membranes in vertical ridge augmentation around dental implants: a prospective randomized controlled clinical trial. Clin Oral Implants Res 25, 859-866. [3] Sarnachiaro et al. (2016). Immediate Implant Placement into Extraction Sockets with Labial Plate Dehiscence Defects: A Clinical Case Series. Clin Implant Dent Relat Res 18, 821-829.

Puros® Bone Block

Bone Allograft

By eliminating the need to excise an autogenous block graft, these prefabricated blocks may save time and shorten the patient's rehabilitation period.

Clinical Evidence

- Retains osteoconductive properties due to the preservation of the natural bone matrix collagen and mineral composition, trabecular pattern, and original porosity [2, 3]
- Implants can be placed five to six months after grafting [2, 4]
- Prospective studies showing comparable results to grafting with autogenous bone blocks [1, 5, 6]
- Restores volume to severely resorbed ridges effectively as shown after nine years follow up [1, 2, 4, 7]

Clinically successful in procedures for:

- Horizontal bone grafting [1, 2, 8, 9]
- Vertical bone grafting [4, 5]

PUROS BONE BLOCK ALLOGRAFT

Item Number	Description
68220	Puros Bone Block Allograft, 10 x 18 x 8 mm
68221	Puros Bone Block Allograft, 15 x 18 x 8 mm

[1] Schlee M. et al. Head & Face Medicine (2014) 10:21. [2] Keith J.D. et al. Int J Periodontics Restorative Dent (2006) 26:321-327. [3] Tadic D. et al. Biomaterials (2004) 25:987-94. [4] Leong D.J. et al. Implant Dent (2015) 24:4-12. [5] Laino L. et al. Biomed Res Int (2014) 2014:982104. [6] Motamedian S.R. et al. Ann Maxillofac Surg (2016) 6:78-90. [7] Bauchet T. Implant (2020) 26:1-8. [8] Jacotti M. et al. Implant Dent (2012) 21:444-8. [9] Tresguerres F.G.F. et al. Clin Implant Dent Relat Res (2019) 21:1087-1098.

Endobon Xenograft

Bovine Granules

An essentially non-resorbable material that is ideally suited for regeneration of defects when effective space maintenance is required.[1]

Clinical Evidence

- Fully deproteinized bovine-derived hydroxyapatite[2]
- Non-resorbable for predictable volume stability and maintenance[3]
- Using this in a buccal onlay tunnel technique showed two-year ridge width after restoration was 9.8 +-1.2 mm (range, 8.0 – 11.2 mm).[1]
- Xenograft particles will be surrounded by newly formed vital bone[4]

Clinically successful in procedures for:

- Alveolar ridge augmentation, including aesthetic contouring defects[1, 5, 6]
- Extraction socket grafting[7]
- Sinus elevation[4, 8]

ENDOBON XENOGRAFT GRANULES

Item Number	Particle Size	Description
ROX05	Small Particles	Endobon Xenograft Granules, 0.5 – 1 mm, 0.5 ml
ROX10	Small Particles	Endobon Xenograft Granules, 0.5 – 1 mm, 1 ml
ROX20	Small Particles	Endobon Xenograft Granules, 0.5 – 1 mm, 2 ml
ROXLG20	Large Particles	Endobon Xenograft Granules, 1 – 2 mm, 2 ml
ROXLG50	Large Particles	Endobon Xenograft Granules, 1 – 2 mm, 5 ml (5 units @ 1 ml each)
ROXLG80	Large Particles	Endobon Xenograft Granules, 1 – 2 mm, 8 ml (8 units @ 1 ml each)

Shelf-life: 18 months

[1] Block M.S. et al. J Oral Maxillofac Surg (2013) 71:1513-1519. [2] Tadic D. et al. Biomaterials (2004) 25:987-94. [3] Block M.S. et al. J Oral Maxillofac Surg (2012) 70:1321-1330, [4] Nevins M. et al. Int J Periodontics Restorative Dent (2011) 31:227-35. [10] Barone A. et al. Int J Periodontics Restorative Dent (2013) 33:795-802. [11] Castillo R.a.D. Inside Dent (2011) 7:94-96. [12] Fischer K.R. et al. Int J Periodontics Restorative Dent (2018) 38:549-556. [13] Testori T. et al. Int J Periodontics Restorative Dent (2012) 32:295-301.

Puros® Dermis

Allograft Tissue Matrix

A high-quality, natural, biocompatible dermal matrix used in horizontal and vertical soft-tissue augmentation. [1-3]

Clinical Evidence

- After five years follow-up, no statistical significant differences in tissue thickening and gain of clinical attachment level compared to autogenous connective tissue graft when used to treat multiple gingival recessions [1]
- Superior tissue characteristics due to solvent dehydration processing compared to freeze-dried grafts [4]
- Not cross-linked compared to a xenogeneic soft-tissue graft [5]
- 100% free of antibiotics: Puros Dermis tissue matrix is not treated with antibiotics like a certain freeze dried human dermis graft [6]
- Rehydration in a single bath reduces preparation time [7]

Clinically successful in procedures for:

- Horizontal and vertical soft-tissue augmentation [1-3, 8]
- Periodontal and peri-implant soft tissue management [9-13]

PUROS DERMIS ALLOGRAFT TISSUE MATRIX - THIN

Item Number	Description - Thin
68794	Puros Dermis Tissue Matrix, 10 x 10 mm, 0.3 – 0.8 mm
68795	Puros Dermis Tissue Matrix, 10 x 20 mm, 0.3 – 0.8 mm
68796	Puros Dermis Tissue Matrix, 10 x 40 mm, 0.3 – 0.8 mm
68797	Puros Dermis Tissue Matrix, 20 x 40 mm, 0.3 – 0.8 mm

PUROS DERMIS ALLOGRAFT TISSUE MATRIX - THICK

Item Number	Description - Thick
68793	Puros Dermis Tissue Matrix, 10 x 10 mm, 0.8 – 1.8 mm
68790	Puros Dermis Tissue Matrix, 10 x 20 mm, 0.8 – 1.8 mm
68791	Puros Dermis Tissue Matrix, 10 x 40 mm, 0.8 – 1.8 mm
68792	Puros Dermis Tissue Matrix, 20 x 40 mm, 0.8 – 1.8 mm

[1] Kroiss S. et al. Quintessence Int. (2019) 50:278-285. [2] Petrungaro P. Inside Dent (2007) 3:2-4. [3] Petrungaro P.S. Inside Dent (2010) 2-9. [4] Hinton R. et al. Am J Sports Med (1992) 20:607-12. [5] Geistlich Fibro-Gide® IFU 08/2017. [6] Alloderm IFU 11/2017. [7] Puros Dermis Allograft Tissue Matrix IFU 06/2017. [8] Abou-Arraj R.V. et al. Int J Periodontics Restorative Dent (2017) 37:571-579. [9] Aroni M.a.T. et al. Rev Odontol UNESP (2016) 45:78-84. [10] Wang H.L. et al. J Periodontol (2014) 85:1693-701. [11] Alasmari D.S. J Am Sci (2014) 10:97-99. [12] Farina V. et al. Int J Oral Maxillofac Implants (2015) 30:909-17. [13] Puisys A. et al. Clin Oral Implants Res (2015) 26:123-9.

Puros® Pericardium

Allograft Membrane

Allograft membrane provides a long-lasting barrier when an optimum balance of strength and handling for graft containment are necessary. [1, 2, 4, 6]

Clinical Evidence

- Functions as a barrier during the critical part of wound healing and helps stabilize and maintain bone growth material in the defect space [1, 2, 4, 6]
- Retains the natural collagen matrix and mechanical properties of native pericardium due to the proprietary Tutoplast Process
- Exhibits multi-directional strength
- Rehydrates quickly
- Three convenient sizes can be cut to shape for specific procedures
- Drapeable membrane adapts to the defect or grafted site

Clinically successful in procedures for:

- Guided bone regeneration procedures [3, 4]
- General surgery applications [7]

PUROS PERICARDIUM MEMBRANE

Item Number	Description
68770	Puros Pericardium Allograft Membrane, 15 x 20 mm
68771	Puros Pericardium Allograft Membrane, 20 x 30 mm
68772	Puros Pericardium Allograft Membrane, 30 x 40 mm

Shelf-life: Five (5) years

[1] Sohn DS, Shin HI, Ahn MR, Lee JS. Piezoelectric vertical bone augmentation using the sandwich technique in an atrophic mandible and histomorphometric analysis of mineral allografts: a case report series. Int J Periodontics Restorative Dent. 2010;30(4):383-391. [2] Taskonak B, Ozkan Y. An alveolar bone augmentation technique to improve esthetics in anterios ceramic FPDs: a clinical report. J Prosthodont. 2006;15(1):32-36. [3] Petrungaro PS, Amar S. Localized ridge augmentation with allogenic block grafts prior to implant placement: case reports and histologic evaluations. Implant Dent. 2005;14(2):139-148. [4] Rocci A, Martignoni M. Local enlargement of the alveolar ridge using a mineralized allogenic cortical- cancellous block graft: a clinical case study. Quintessence Int. 1999;11(12):373-380. (Italian Edition). [5] Paolantonio M. Combined periodontal regenerative technique in human intrabody defects by collagen membranes and anorganic bovine bone. A controlled clinical study. J Periodontol. 2002 Feb;73(2):158-166. [6] Shin HI, Sohn DS. A method of sealing perforated sinus membrane and histologic finding of bone substitutes: a case report. Implant Dent. 2005;14(4): 328-335. [7] Keith JD, Salama MA. Ridge preservation and augmentation using regenerative materials to enhance implant predictability and esthetics. Compend Contin Educ Dent. 2007 Nov;28(11):614-621; quiz 622-624.

Socket Repair
Membrane

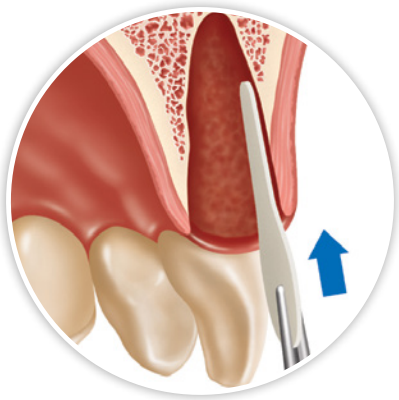
Designed to assist wound healing in alveolar facial plate repair following atraumatic, flapless single-root tooth extraction.

Clinical Evidence

- Made of bovine achilles tendon [1]
- Barrier time 26-38 weeks [1] (accelerated resorption will occur if exposed)
- Flapless approach preserves marginal soft-tissue contours [2] and does not compromise buccal bone tissue. Maintaining this tissue and the vascular supply to the area is important for achieving highly esthetic results [3]

Clinically successful in procedures for:

- Three-wall extraction sockets [3-5]



SOCKET REPAIR MEMBRANE

Item Number	Description
0154	Zimmer Socket Repair Membrane, 10 x 20 mm

[1] Zimmer Socket Repair Membrane IFU latest revision [2] Danesh-Meyer M. Australasian Dental Practice (2008) 150-158. [3] Elian N. et al. Pract Proced Aesthet Dent (2007) 19:99-104. [4] Eskow A.J. et al. J Periodontol (2014) 85:514-24. [5] Hoang T.N. et al. J Periodontol (2012) 83:174-81.

OsseoGuard® and OsseoGuard Flex®

Collagen Membranes

Two levels of drapability for ease of use in various clinical procedures.

Clinical Evidence

- Made of bovine Achilles tendon (OsseoGuard) [1] and highly purified bovine dermis (OsseoGuard Flex) [2]
- Barrier time six – nine months [1-3]
- Not side specific for convenient handling [4]
- Can be trimmed, placed dry, or hydrated and finally sutured in place [1, 2]
- Performs when primary closure has not been achieved (OsseoGuard Flex) [4]
- Space maintaining (OsseoGuard) [5]

OsseoGuard clinically successful in procedures for:

- Periodontal and/or dental surgery procedures [1]
- In the area of periodontal defects, dental implant, bone defect or ridge reconstruction [1, 6-9]

OsseoGuard Flex clinically successful in procedures for:

- Augmentation around implants placed in immediate extraction sockets, delayed extraction sockets [2, 10-12]
- Localized ridge augmentation for later implantation [2, 13]
- Alveolar ridge reconstruction for prosthetic treatment [2]
- Filling of bone defects [2]
- Guided bone regeneration in dehiscence defects [2]

OsseoGuard

OsseoGuard Flex

OSSEOGUARD MEMBRANE

Item Number	Description
OG1520	OsseoGuard Resorbable Collagen Membrane, 15 x 20 mm
OG2030	OsseoGuard Resorbable Collagen Membrane, 20 x 30 mm
OG3040	OsseoGuard Resorbable Collagen Membrane, 30 x 40 mm

OSSEOGUARD FLEX MEMBRANE

Item Number	Description
OGF1520	OsseoGuard Flex Resorbable Collagen Membrane, 15 x 20 mm
OGF2030	OsseoGuard Flex Resorbable Collagen Membrane, 20 x 30 mm
OGF3040	OsseoGuard Flex Resorbable Collagen Membrane, 30 x 40 mm

[1] OsseoGuard Membrane IFU latest revision. [2] OsseoGuard Flex Membrane IFU latest revision. [3] Data on File with Collagen Matrix Inc. [4] Data on File with ZimVie. [5] Block M.S. et al. J Oral Maxillofac Surg (2013) 71:1513-1519. [6] Fischer K.R. et al. Int J Periodontics Restorative Dent (2018) 38:549-556. [7] Tan-Chu J.H. et al. Int J Periodontics Restorative Dent (2014) 34:399-403. [8] Block M.S. et al. J. Oral Maxillofac. Surg. (2012) 70:1321-1330. [9] Nevins M. et al. Int J Periodontics Restorative Dent (2011) 31:227-35. [10] Chasioti E. et al. Case reports in dentistry (2015) Article ID 439706:8pages. [11] Castillo R.a.D. Inside Dent (2011) 7:94-96. [12] Felice P. et al. Eur J Oral Implantol (2015) 8:375-84. [13] Chasioti E. et al. Quintessence Int (2013) 44:763-71.

BioMend® and BioMend Extend™

Collagen Membranes

Resorbable collagen membranes made of bovine Achilles tendon that are rigid enough to create and maintain space.[1]

Clinical Evidence

- Two different options of barrier time: 8 weeks max. (BioMend), 18 weeks max. (BioMend Extend) [2]
- Not side specific for convenient handling [3]
- Cell-occlusive – serves as barrier to prevent epithelial cell migration and allows passage of essential nutrients [2]
- Up to 54% more horizontal bone gain when using BioMend Extend membranes to cover bone graft during implant placement [4]

*Compared to a Porcine Membrane**

- Significantly higher tensile strength in wet and dry state may be useful for guided bone regeneration techniques [9]
- 34% more new bone fill and 28% more bone to-implant contact when using BioMend Extend Membranes for treatment of implant dehiscence defects [1]

Clinically successful in procedures for:

- Guided tissue regeneration procedures in periodontal defects [2]
- Periodontal surgery [2, 5, 6]
- Use in dental surgery procedures as a material for placement in the area of an implant, bone defect, or ridge construction [2, 7]
- Sinus lift procedures [8]

BIOMEND MEMBRANE

Item Number	Description
0103Z	BioMend Resorbable Collagen Membrane, 15 x 20 mm
0105Z	BioMend Resorbable Collagen Membrane, 20 x 30 mm
0107Z	BioMend Resorbable Collagen Membrane, 30 x 40 mm

BIOMEND EXTEND MEMBRANE

Item Number	Description
0140Z	BioMend Extend Resorbable Collagen Membrane, 15 x 20 mm
0141Z	BioMend Extend Resorbable Collagen Membrane, 20 x 30 mm
0142Z	BioMend Extend Resorbable Collagen Membrane, 30 x 40 mm

*Bio-Gide Membrane, Edward Geistlich Sohne AG. [1] Oh T.J. et al. Clin Oral Implants Res (2003) 14:80-90. [2] BioMend and BioMend Extend Absorbable Collagen Membrane IFU latest revision. [3] Data on File with Collagen Matrix Inc. [4] Park S.H. et al. Clin Oral Implants Res (2008) 19:32-41. [5] Wang H.L. et al. J Periodontol (1994) 65:1029-36. [6] Wang H.-L. et al. Periodontol 2000 (2012) 59:140-157. [7] Saravanan P. et al. J Oral Implantol (2013) 39:455-62. [8] Ranaan J. et al. Clin Oral Implants Res (2018). [9] Coïc M. et al. Rev Stomatol Chir Maxillofac Chir Orale (2010) 111:286-290.

Collagen Matrices

Plug, Tape, and Patch

Highly porous, absorbable Collagen Wound Dressings to protect, heal, and repair oral wounds.

Clinical Evidence

- Resorption and remodeling profiles of carbonate apatite mimic natural bone mineral [1]
- Higher osteoconductive properties and earlier bioresorption, compared to HA samples [2, 3, 4]

COLLAGEN MATRICES: PLUG, TAPE AND PATCH

Item Number	Description
0100Z	Zimmer Collagen Tape, 25 x 75 x 1 mm, 10 u/pk
0101Z	Zimmer Collagen Patch, 20 x 40 x 3 mm, 10 u/pk
0102Z	Zimmer Collagen Plug, 10mm x 20 mm, 10 u/pk

Key Attributes

- Made of porcine collagen [1]
- Holds up to 30x own weight in fluid [2]
- No removal needed – resorbs in fewer than 30 days [2]
- Greater than 90% open pores [2]
- Protects wound bed – adheres and provides coverage to oral wounds and sores
- Designed to aid healing – porous, absorbable matrix supports delicate new tissue

Clinically successful in procedures for:

- Periodontal surgical wounds [1]
- Suture sites [1]
- Extraction sites [1]
- Surgical wounds [1]
- Traumatic wounds [1]

Collagen Plug
10 x 20 mm

Collagen Tape
25 x 75 mm, 1 mm thick

Collagen Patch
20 x 40 mm, 3 mm thick

[1] ZimVie Collagen Absorbable Wound Dressings IFU latest revision. [2] Data on File with Collagen Matrix Inc.

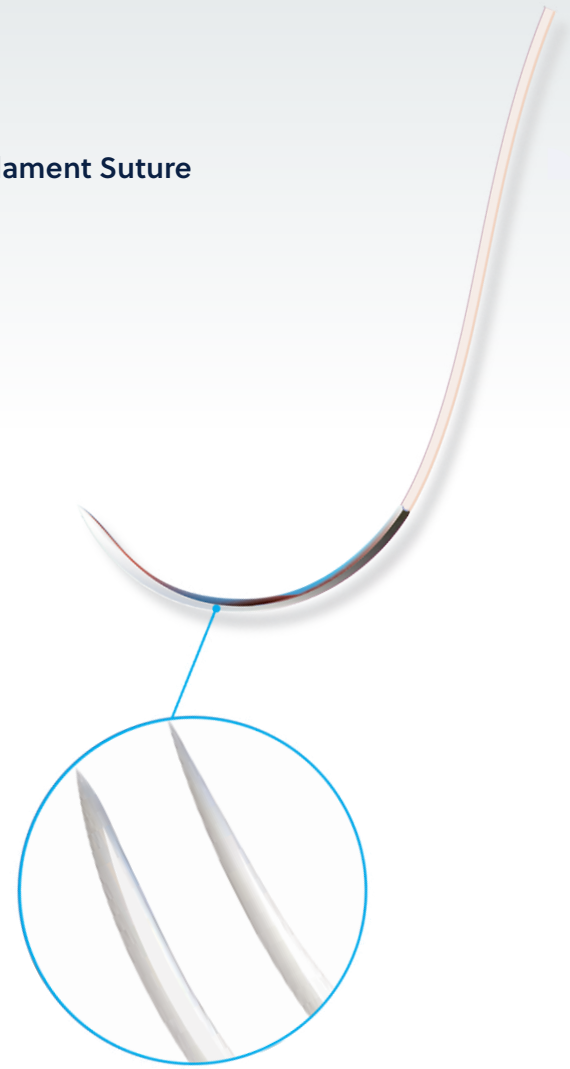
OsseoGuard®

Non-Resorbable Sutures

Non-Resorbable PTFE Soft Monofilament Suture

Key Attributes

- 100% medical grade PTFE
- Very low package memory
- Biologically inert
- Does not allow bacteria wicking into the surgical site
- Comfortable for patients
- Excellent handling, knots securely
- Keeps the surgical site reliably closed



OSSEOGUARD NON-RESORBABLE SUTURES

Item Number	Description
OS4013PE	USP 4-0, 13 mm, 1/2 circle round body, taper point
OS4013PR	USP 4-0, 13 mm, 3/8 circle precision, reverse cutting
OS3016	USP 3-0, 16 mm, 3/8 circle precision, reverse cutting
OS4016	USP 4-0, 16 mm, 3/8 circle precision, reverse cutting
OS2019	USP 2-0, 19 mm, 3/8 circle precision, reverse cutting
OS3019	USP 3-0, 19 mm, 3/8 circle precision, reverse cutting
OS3016B	USP 3-0, 16 mm, 3/8 circle precision, reverse cutting black
OS3019B	USP 3-0, 19 mm, 3/8 circle precision, reverse cutting black

Safescraper Twist

Cortical Bone Collector

Effectively harvesting autogenous bone which contains viable bone cells which might contribute to the outcome of bone grafting procedures.[1]

Key Attributes

- Provides 160° cutting area to effectively harvest up to 5 cc of cortical bone
- Available in curved and straight designs facilitating access to hard-to-reach posterior regions
- Harvested bone is contained in a sterile chamber
- Harvested bone contains viable bone cells and shows high osteogenic potential [1, 2]
- Higher cell viability, cell proliferation, osteogenic potential, and release of growth factors compared to other harvesting methods [2, 3]

Straight

Curved

SAFESCRAPER TWIST BONE COLLECTOR

Item Number	Description
3598	Disposable Cortical Bone Collector, 3 Units/pk, Straight
3987	Disposable Cortical Bone Collector, 3 Units/pk, Curved

[1] Zaffe D. et al. Clin Oral Implants Res (2007) 18:525-533. [2] Miron R.J. et al. J Dent Res (2011) 90:1428-33. [3] Miron R.J. et al. Clin Implant Dent Relat Res (2013) 15:481-489.

For more information, visit ZimVie.com.au

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