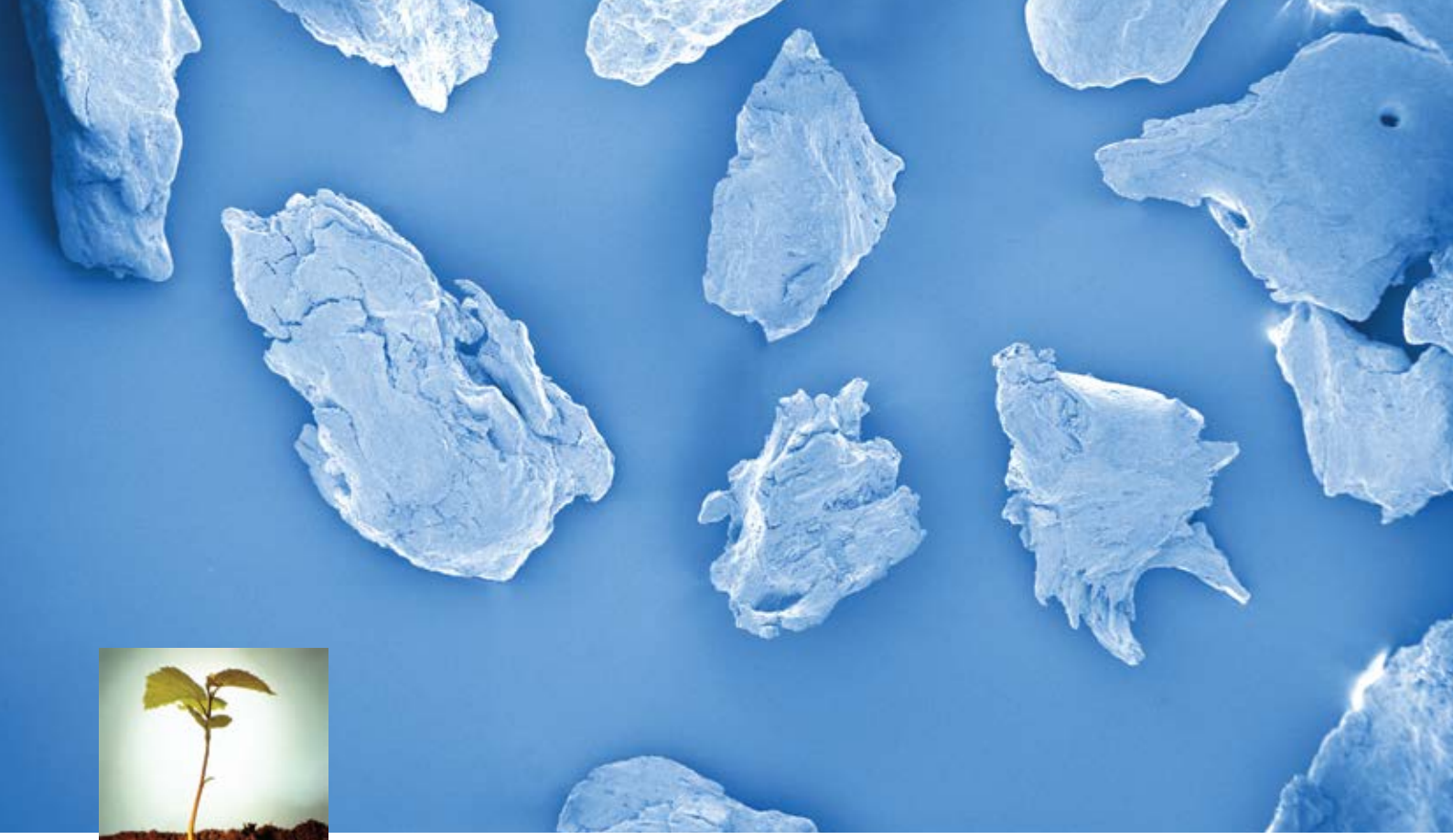

OsteoBiol®
by Tecnoss

Collagen-based biomaterials

REGENERATION SCIENCE

INSPIRED BY NATURE

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OUR MISSION

«To create xenogenic bone substitutes and collagen membranes as similar as possible to autogenous bone and soft tissues.»

Giuseppe Oliva, MD

Founder of **Tecnoss S.r.l.** & inventor of **OsteoBiol**® biomaterials

OUR VISION

We want to reduce the invasiveness of surgical procedures and improve patients' lives by delivering innovative and scientifically validated xenogenic collagenated biomaterials to healthcare professionals.

PATIENTS FIRST

Combining the best skills and the best materials, within the limits and guidelines provided by scientific evidence, is the key for clinical success: however, let us all remember that the patients are and will always be the centre of all our attentions.

Meeting their expectations, helping them to recover function and esthetics with long term success[1,2] is the greatest reward for any surgeon and fulfillment of our company mission.

(1) Barone A et al. J Periodontol, 2011 Feb; 82(2):219-26
(2) Scarano A et al. J Oral Maxillofac Surg, 2010 Aug;68(8):1869-73

Tecnoss®

The Manufacturer

OsteoBiol® by Tecnoss

The Biomaterials line

Collagenic bone matrix

Collagen membranes

The Devices

COLLAGENIC BONE MATRIX

THE ADVANTAGES OF A

WHY COLLAGEN?

Natural human hard bone tissue contains approximately 25% collagen. Collagen is also considered the ideal substrate for bone-forming cells as it is a chemotactic molecule[1,2] and stimulates new blood vessels formation[3].

SIMILARITY TO AUTOGENOUS BONE

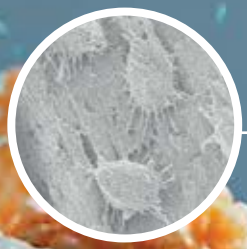
About 22% collagen is retained in each OsteoBiol® xenogenic granule, making it chemically and physically similar to autogenous bone[4].

MESENCHYMAL STEM CELLS DIFFERENTIATION

Collagen acts as a chemoattractant towards mesenchymal stem cells and promotes their differentiation into osteogenic cells[3].

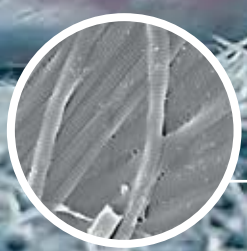
NEW BONE FORMATION

Collagen also recruits osteogenic cells such as osteoclasts and osteoblasts at the defect site. The former progressively resorb OsteoBiol® collagenic xenograft[1,2] while the latter simultaneously deposit newly formed bone[1,2].



Osteoblasts landed on OsteoBiol® Dual-Phase bone matrix.

Author: Prof Ulf Nannmark, University of Göteborg, Sweden



Collagen fibres embedded within OsteoBiol® collagenic xenografts.

Author: Prof Ulf Nannmark, University of Göteborg, Sweden

COLLAGENIC XENOGRAFT

OsteoBiol® Dual-Phase bone granules are not ceramized[4] and their gradual and progressive resorption leads to an adequate amount of newly formed bone at re-entry time.

Osteogenic cells live thanks to the blood supply, which is essential for the success of any bone regeneration procedure. An *in vitro* study demonstrated that OsteoBiol® Dual-Phase bone substitutes promote new blood vessel formation[3,5], thus providing osteoblasts and osteoclasts with oxygen and nutrients.

The bloodstream also provides growth factors, a set of molecules that play a key role in bone regeneration, including Vascular Endothelial Growth Factor (VEGF) a crucial protein for neovascularization and angiogenesis.

Due to its high similarity with the gold standard for bone regeneration[4], the OsteoBiol® collagenic product line is a valid alternative to autogenous bone for various surgical procedures[6-11].

GRADUAL RESORPTION

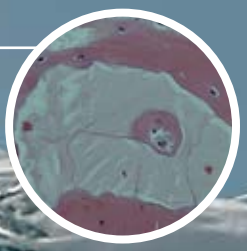
BLOOD VESSELS

GROWTH FACTORS

AN ALTERNATIVE TO GOLD STANDARD

Newly formed bone surrounding a GTO® collagenic granule.

Author: Prof Ulf Nannmark, University of Göteborg, Sweden



1. Nannmark U et al. Clin Implant Dent Relat Res, 2008 Dec;10(4):264-70
2. Falacho RI et al. Molecules, 2021 Mar 2;26(5):1339
3. Rombouts C et al. Dent Mater J, 2016 Dec 1;35(6):900-907
4. Figueiredo M et al. J Biomed Mater Res B Appl Biomater, 2010 Feb;92(2):409-419
5. Jeanneau C et al. Materials, 2024; 17(3):625
6. Correia F et al. Materials (Basel), 2021 Jun 21;14(12):3439
7. Correia F et al. Materials, 2023; 16(3):1220
8. Correia F et al. Dentistry Journal, 2024; 12(2):33
9. Felice P et al. Int J Periodontics Restorative Dent, 2017 Jul/Aug;37(4):469-480
10. Villa G et al. Int J Periodontics Restorative Dent, 2023 July-Aug;43(4):435-441
11. Happe A et al. J Clin Med, 2023 Nov 9;12(22):7013

THE ADVANTAGES OF A

OSTEOBIOL® COLLAGENIC XENOGRAFT: A UNIQUE PRODUCT LINE

Tecnoss® developed several biomaterials for every clinical indication[1] to provide the best handling, the ideal granulometry and consistency, and optimal regenerative results within adequate re-entry time.

Today it is finally possible to achieve predictable clinical success in most regenerative protocols without the availability limitations of autogenous bone[1-5].

Enjoy one of the widest and most complete product line of biomaterials, with the security and support of more than 25 years of clinical research.

Predictable results in sinus lift procedures

Easy-handling collagenated xenograft

Predictable outcomes in the esthetic area

DUAL-PHASE BIOMATERIAL

Various clinical studies showed that the OsteoBiol® product line can contribute to the formation of an appropriate amount of newly formed bone[6,7]. Hence, implants are stable over long follow-up periods (> 5 years)[8-11] with a minimal bone loss around the implant surface.

IMPLANT STABILITY OVER LONG PERIODS

Hard and soft tissue volume loss is a common post-operative complication. Scientific studies report that OsteoBiol® collagenic xenografts prevent both hard[12] and soft[13] tissue volume shrinkage.

PREVENTION OF VOLUME LOSS

Since the last 25 years, scientific studies showed that OsteoBiol® product line is reliable and safe over long follow-up periods[8-11] and in complex regenerative procedures[4,14].

SAFETY

25 years of clinical experience[1] demonstrated that the OsteoBiol® bone substitutes are a valid alternative to autogenous bone particles in several surgical procedures[2-5].

A LONG HISTORY OF CLINICAL EXCELLENCE

1. Romasco T et al. J Funct Biomater, 2022 Aug 18;13(3):121
2. Felice P et al. Int J Periodontics Restorative Dent, 2017 Jul/Aug;37(4):469-480
3. Correia F et al. Dentistry Journal, 2024; 12(2):33
4. Villa G et al. Int J Periodontics Restorative Dent, 2023 July-Aug;43(4):435-441
5. Happe A et al. J Clin Med, 2023 Nov 9;12(22):7013
6. Hirota A et al. Oral Maxillofac Surg, 2020 Sep;24(3):299-308
7. Barone A et al. J Periodontol, 2008 Aug;79(8):1370-7
8. Pistilli R. et al. J Dent, 2022 Jun;121:104137
9. Testori T et al. Int J Oral Implantol (Berl), 2024 May 27;17(2):189-198
10. Schuh PL et al. Materials (Basel), 2021 Sep 9;14(18):5180
11. Esposito M. et al. Clinical Trials In Dentistry, 2020;02(4):21-37
12. Barone A et al. Clin Implant Dent Relat Res, 2017 Aug;19(4):750-759
13. Fischer KR et al. Clin Implant Dent Relat Res, 2019 Oct;21(5):923-930
14. Köttgen C et al. Int J Esthet Dent, 2024 May 10;19(2):152-169

Porcine origin

Codes	Packaging	Size	Granulometry	Mean observed re-entry time
MU0005S	1 Syringe	0,5 cc	0,6-1 mm	About 5 months
MU0020S	1 Wide-tip syringe	2 cc	0,6-1 mm	About 5 months

Equine origin

Codes	Packaging	Size	Granulometry	Mean observed re-entry time
MU0005E	1 Syringe	0,5 cc	0,6-1 mm	About 5 months
MU0020E	1 Wide-tip syringe	2 cc	0,6-1 mm	About 5 months

Description

Collagenated bone mix granules pre-hydrated blended with a thermosensitive copolymer

Pre-hydrated granules and *TSV Gel*

Heterologous bone mix

Characteristics

GTO® is sticky, gradually resorbable and osteoconductive[1].

Thanks to its high collagen content[1], ***GTO®*** allows an excellent rate of new bone formation[2-4], delivering adequate graft volume preservation[5], healthy new bone tissue and, ultimately, a successful implant rehabilitation[2-7]. ***GTO®*** is a mixture of heterologous collagenated cortico-cancellous granules and ***TSV Gel***, the component that provides its sticky properties[8].

How to handle *GTO®*

GTO® has been conceived as a universal biomaterial, easily adaptable to any bone defect.

It is ready-to-use, pre-hydrated and remains stable into the defect site.

Thus, clinicians can skip the hydration step with saline or blood, saving time and decreasing the risk of accidental exposure to pathogens.

1. Jeanneau C et al. Materials, 2024; 17(3):625
2. Canullo L et al. J Dent, 2024 Nov;150:105337
3. Passarelli PC et al. Am J Dent, 2024 Sept;37(SIA):9A-12A
4. Lopez MA et al. Am J Dent, 2024 Sept;37(SIA):41A-44A
5. Menini M et al. Dentistry Journal, 2024; 12(7):198
6. Passarelli PC et al. Am J Dent, 2024 Sept;37(SIA):4A-8A
7. Cinquini C et al. Clin Implant Dent Relat Res, 2025 Aug;27(4):e70085
8. Taniguchi Z et al. Int J Oral Maxillofac Implants, 2024 Oct 4;0(0):1-28

Porcine origin

Codes	Packaging	Size	Granulometry	Mean observed re-entry time
A3095FS	1 Syringe	0,5 cc	0,6-1 mm	About 5 months
A3005FS	1 Syringe	1 cc	0,6-1 mm	About 5 months
A3010FS	1 Wide-tip syringe	2 cc	0,6-1 mm	About 5 months
A3210FS	1 Wide-tip syringe	2 cc	1-2 mm	About 5 months

Equine origin

Codes	Packaging	Size	Granulometry	Mean observed re-entry time
A3095FE	1 Syringe	0,5 cc	0,6-1 mm	About 5 months
A3005FE	1 Syringe	1 cc	0,6-1 mm	About 5 months
A3010FE	1 Wide-tip syringe	2 cc	0,6-1 mm	About 5 months
A3210FE	1 Wide-tip syringe	2 cc	1-2 mm	About 5 months

Description

Collagenated bone granules pre-hydrated with collagen gel

Heterologous cortico-cancellous bone mix

Characteristics

mp3® is a Dual-Phase pre-hydrated biomaterial. Hence, it is possible to skip the hydration phase and decrease the risk of accidental exposure of the material to pathogens during the manipulation phase.

Dual-Phase collagenic bone granules are endowed with characteristics very similar to autogenous bone[1], and can be used as a viable alternative to autogenous bone providing similar performances over time[2].

mp3® granules are gradually resorbable[3,4], and preserve the original shape and volume of the bone surrounding the defect[5] allowing a successful regeneration.

How to handle *mp3*®

mp3® must be used in a sterile environment.

After adapting the material to the defect shape, it is necessary to remove non stable residues before proceeding to the soft tissues suture.

1. Correia et al. Materials (Basel), 2021 Jun 21;14(12):3439
2. Correia et al. Dentistry Journal, 2024; 12(2):33
3. Nannmark U et al. Clin Implant Dent Relat Res, 2008 Dec; 10(4):264-70
4. Giuliani A et al. Clin Oral Investig, 2018 Jan;22(1):505-513
5. Barone A et al. Clin Oral Implants Res, 2016 Nov;27(11):e105-e115

Porcine origin

Codes	Packaging	Size	Granulometry	Mean observed re-entry time
05GEL40S	1 Syringe	0,5 cc	≤ 0,300 mm	About 4 months

Description

Collagenic bone matrix and collagen gel
Heterologous cortico-cancellous bone mix

Characteristics

The composition of ***Gel 40*** facilitates the gentle detachment of the sinus membrane[1].

Cortico-cancellous Dual-Phase bone granules provide the necessary scaffold function[2], allowing the subsequent invasion of regenerative cells and new bone formation[1,2].

Gel 40 provides an osteoconductive matrix for new bone growth, while promoting soft tissue healing, when used in narrow self-contained bone defects[1,2].

How to handle *Gel 40*

The distinctive viscosity and density of ***Gel 40*** facilitate the handling of the bone gel.

It was documented that, in case of adequate height of the bone crest, immediate implant placement reduces the physiological shrinkage of the biomaterial[1] after crestal access sinus lifting procedures.

1. Lombardi T et al. Int J Implant Dent, 2022 Jul 22;8(1):32
2. Kobe T et al. Clin Exp Dent Res, 2024 Feb;10(1):e853

Porcine origin

Codes	Packaging	Size	Granulometry	Mean observed re-entry time
HPT52S	1 Syringe	0,25 cc	≤ 0,300 mm	About 4 months
HPT09S	1 Syringe	0,5 cc	≤ 0,300 mm	About 4 months
HPT61S	1 Wide-tip syringe	1 cc	≤ 0,300 mm	About 4 months

Equine origin

Codes	Packaging	Size	Granulometry	Mean observed re-entry time
HPT52E	1 Syringe	0,25 cc	≤ 0,300 mm	About 4 months
HPT09E	1 Syringe	0,5 cc	≤ 0,300 mm	About 4 months
HPT61E	1 Wide-tip syringe	1 cc	≤ 0,300 mm	About 4 months

Description

Collagenic bone paste

Heterologous cortico-cancellous bone mix

Characteristics

Putty is a pre-hydrated injectable bone paste containing collagenic bone granules with a granulometry of ≤ 300 mm.

The small diameter bone granules facilitates the application of ***Putty*** into peri-implant lesions with intact bony walls[1].

Putty should be used in defects able to firmly contain it[1-3], in order to stabilize the graft and allow its gradual resorption and new bone deposition.

How to handle *Putty*

Putty should be injected into the defect and adapted to its morphology without extensive compression.

Any non-stable residue must be removed before soft tissue suture.

1. Barone A et al. Eur J Implant Prosthodontics, 2006, 2:99-106
2. Cassetta M et al. Int J Periodontics Restorative Dent, 2012 Oct;32(5):581-9
3. Saglanmak A et al. J Clin Med, 2024 Apr 11;13(8):2225

Porcine origin

Codes	Packaging	Size	Granulometry	Mean observed re-entry time
M1052FS	1 Vial	0,25 g	0,25-1 mm	About 5 months
M1005FS	1 Vial	0,5 g	0,25-1 mm	About 5 months
M1010FS	1 Vial	1 g	0,25-1 mm	About 5 months
M1020FS	1 Vial	2 g	0,25-1 mm	About 5 months
M0210FS	1 Vial	1 g	1-2 mm	About 5 months
M0220FS	1 Vial	2 g	1-2 mm	About 5 months

Equine origin

Codes	Packaging	Size	Granulometry	Mean observed re-entry time
M1052FE	1 Vial	0,25 g	0,25-1 mm	About 5 months
M1005FE	1 Vial	0,5 g	0,25-1 mm	About 5 months
M1010FE	1 Vial	1 g	0,25-1 mm	About 5 months
M1020FE	1 Vial	2 g	0,25-1 mm	About 5 months

Description

Heterologous dry cortico-cancellous collagenic bone mix

Slightly radiopaque granules

Characteristics

Gen-Os® has a similar structure to human bone (matrix and porous form)[1] and presents osteoconductive properties[2].

Thanks to its collagen content, ***Gen-Os***® has chemotactic properties and facilitates blood clotting and the subsequent invasion of repairing and regenerative cells[2].

In addition, it is gradually resorbable and provides appropriate support in bone neoformation[3] and neo-angiogenesis[4].

Gen-Os® is a hydrophilic Dual-Phase xenograft, and it has been also used in association with growth factors[5].

How to handle *Gen-Os*®

Gen-Os® must always be hydrated and thoroughly mixed with either a few drops of sterile physiological solution or the patient's blood to activate its collagen matrix embedded within the xenogenic bone granules.

1. Figueiredo M et al. J Biomed Mater Res B Appl Biomater, 2010 Feb; 92(2):409-19
2. Nannmark U et al. Clin Implant Dent Relat Res, 2008 Dec;10(4):264-70
3. Cardaropoli D et al. Int J Periodontics Restorative Dent, 2008 Oct; 28(5):469-77
4. Rombouts C et al. Dent Mater J, 2016 Dec 1;35(6):900-907
5. Mijiritsky E et al. Materials, 2017 Sep 8;10(9)

Porcine origin

Codes	Packaging	Size	Granulometry	Mean observed re-entry time
A1005FS	1 Vial	0,5 g	0,6-1 mm	About 5 months
A1010FS	1 Vial	1 g	0,6-1 mm	About 5 months
A1020FS	1 Vial	2 g	0,6-1 mm	About 5 months
A0210FS	1 Vial	1 g	1-2 mm	About 5 months
AC1005FS	1 Vial	0,5 g	0,6-1 mm	About 5 months
AC1010FS	1 Vial	1 g	0,6-1 mm	About 5 months

Equine origin

Codes	Packaging	Size	Granulometry	Mean observed re-entry time
A1005FE	1 Vial	0,5 g	0,6-1 mm	About 5 months
A1010FE	1 Vial	1 g	0,6-1 mm	About 5 months
A1020FE	1 Vial	2 g	0,6-1 mm	About 5 months
A0210FE	1 Vial	1 g	1-2 mm	About 5 months

Description

Apatos® Mix: Dry cortico-cancellous collagenic bone mix

(ref: A1005FS A1010FS A1020FS A0210FS A1005FE A1010FE A1020FE A0210FE)

Apatos® Cortical: Dry cortical collagenic bone granules

(ref: AC1005FS AC1010FS)

Radiopaque granules of mineral hydroxyapatite

Characteristics

Apatos® is a biocompatible and osteoconductive[1] collagenic xenograft with characteristics similar to mineralised human bone[2].

The natural microporous consistency of ***Apatos®*** facilitates the formation of new bone tissue in the bone defect area[3], accelerating the physiological process.

Apatos® Cortical is characterised by a long resorption time[4], contributing to the preservation of the grafted volume.

How to handle *Apatos®*

Apatos® must always be hydrated and thoroughly mixed with a few drops of sterile saline. It can also be mixed with the patient's blood.

The mixture thus obtained should be positioned with a sterile spatula or syringe for biomaterials.

1. Cakir M et al. Int J Oral Maxillofac Implants, 2015 Mar-Apr;30(2):279-85
2. Kolmas J et al. Pharm Biomed Anal, 2012 Mar 5;61:136-41
3. Barone A et al. J Clin Periodontol, 2017 Feb;44(2):204-214
4. Scarano A et al. Clin Implant Dent Relat Res, 2011 Mar;13(1):13-8

Porcine origin

Codes	Size	Packaging	Mean observed re-entry time
TSV005S	0,5 cc	1 Syringe	About 5 months

Description

Collagen gel and aqueous solution of a biocompatible copolymer

Characteristics

TSV Gel is a heterologous type I and III collagen gel diluted in aqueous solution containing a biocompatible synthetic copolymer that gives ***TSV Gel*** thermo-reversible and thermo-gelling properties.

In vitro and clinical studies demonstrated that ***TSV Gel*** components enhance osteoblast activity[1] and support new bone formation[2].

At low temperature (+4°C), the gel is relatively flowable and easy to mix with the graft, but it becomes more viscous *in situ* when exposed to body temperature.

How to handle *TSV Gel*

The purpose of ***TSV Gel*** is to provide mechanical stability to bone substitutes[2,3] and collagen membranes[4].

TSV Gel should be refrigerated for at least 20 minutes at +4°C before use, in order to reach the low viscosity phase. It is recommended to mix ***TSV Gel*** with dry bone granules (e.g. ***Gen-Os®***[2] or ***Apatos®***).

1. Pierfelice TV et al. Int J Mol Sci, 2025 Aug 6;26(15):7621
2. Cinquini C et al. Clin Implant Dent Relat Res, 2025 Aug;27(4):e70085
3. Lopez MA et al. Am J Dent, 2024 Sept;37(SIA):33A-36A
4. Passarelli PC et al. Am J Dent, 2024 Sept;37(SIA):29A-32A

Equine origin

Codes	Packaging	Size	Mean observed re-entry time
BN0E	1 Blister	10x10x10 mm	About 8 months
BN1E	1 Blister	10x10x20 mm	About 8 months
BN2E	1 Blister	10x20x20 mm	About 8 months
BN8E	1 Blister	35x10x5 mm	About 8 months

Description

Dry cancellous collagenic bone block

Characteristics

Sp-Block is a xenogenic cancellous block. The bone matrix is not ceramized and the collagen is preserved in its natural structure, thus accelerating physiological resorption and new bone formation[1-6].

Sp-Block is able to maintain the original graft volume, which is particularly important in case of large regenerations.

How to handle *Sp-Block*

Sp-Block must be hydrated for 5/10 minutes before use with a sterile physiological solution.

Afterwards, the block can be adapted to the receiving site which must be accurately decorticated in order to guarantee maximum contact.

The blocks should be always fixed with osteosynthesis microscrews. When used for vertical augmentation with inlay technique, ***Sp-Block*** should also be fixed with miniplates.

Protection with collagen membranes, like ***Evolution***, is recommended. Gaps between the block and bone should be filled with bone sobstitutes, like ***mp3***®[6].

1. Scarano A et al. Biomed Res Int, 2016;2016:4086870
2. Sakaguchi R et al. Materials (Basel), 2023 Oct 18;16(20):6742
3. Kaneko N et al. Materials (Basel), 2023 Dec 3;16(23):7490
4. Felice P et al. Int J Periodontics Restorative Dent, 2013 Mar-Apr;33(2):159-66
5. Felice P et al. Int J Periodontics Restorative Dent, 2017 Jul/Aug;37(4):469-480
6. Marconcini S et al. J Oral Maxillofac Surg, 2019 Feb;77(2):289-298

Porcine origin

Codes	Packaging	Size	Thickness	Mean observed re-entry time
LS10HS	1 Blister	35x35 mm	1 mm	About 6 months
LS23FS	1 Blister	25x35 mm	0,4-0,6 mm	About 5 months
LS25FS	1 Blister	25x25 mm	0,4-0,6 mm	About 5 months
LS24LS	1 Blister	20x40 mm	1 mm	About 6 months
LS03SS	1 Blister	30x30 mm	2-4 mm	About 8 months
LS15LS	1 Blister	35x15 mm	0,6-0,8 mm	About 7 months
LS35LS	1 Blister	35x35 mm	1 mm	About 6 months

Equine origin

Codes	Packaging	Size	Thickness	Mean observed re-entry time
LS10HE	1 Blister	35x35 mm	1 mm	About 6 months
LS25FE	1 Blister	25x25 mm	0,4-0,6mm	About 5 months

Description

Heterologus cortical collagenic bone lamina

Lamina® Soft: semi-rigid flexible dried lamina
(ref: LS25FS LS24LS LS03SS LS25FE LS03SE; Oval LS23FS)

Lamina® Curved: semi-rigid flexible dried lamina, curved version
(ref: LS10HS LS10HE)

Tecnoss® Lamina® Hard: rigid dried lamina, flexible after re-hydration
(ref: LS15LS LS35LS)

Characteristics

Lamina® collagenic bone laminas are made of cortical bone of heterologous origin.

After a process of superficial decalcification, ***Lamina® Soft*** and ***Lamina® Curved*** acquires an elastic consistency, nevertheless maintaining the typical compactness of the bone tissue from which it originates; the margins are soft in order not to cause micro-traumas to the surrounding tissue[1].

Tecnoss® Lamina® Hard undergoes a process of superficial semi-decalcification therefore increasing its consistency, typical of the cortical bone tissue[2].

How to handle *Lamina®*

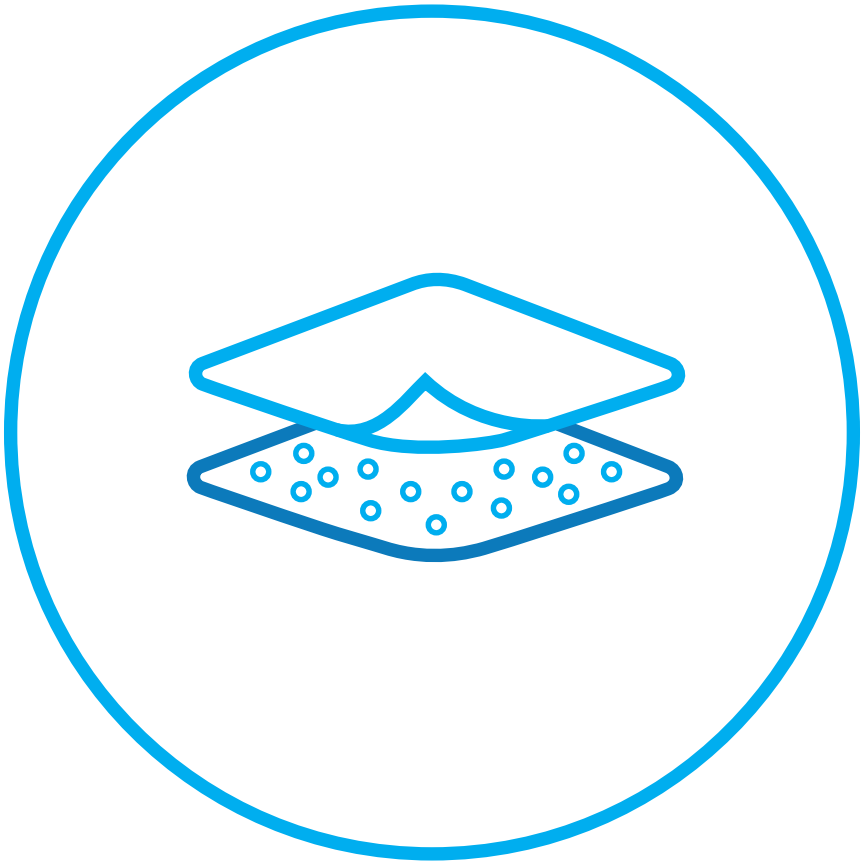
Lamina® Soft, ***Lamina® Curved*** and ***Tecnoss® Lamina® Hard*** must be fixed with osteosynthesis tools[1-3].

Lamina® Curved should always be immobilized[3] either with titanium microscrews or sutured directly to the surrounding tissues with a triangular section non-traumatic needle. ***Lamina® Curved*** should not be hydrated in order to maintain its tenting effect.

Lamina® Soft and ***Tecnoss® Lamina® Hard*** must be hydrated and can be shaped with sterile scissors until the desired size is reached[1], then it must be hydrated for 5/10 minutes in sterile physiological solution.

1. Ghallab NA et al. Oral Maxillofac Surg, 2023 Sep;27(3):497-505
2. Happe A et al. J Clin Med. 2023 Nov 9;12(22):7013
3. Rossi R et al. Int J Esthet Dent. 2020;15(4):454-473

COLLAGEN MEMBRANES



THE ADVANTAGES OF A

WHY COLLAGEN?

Collagen is the most abundant protein in human bone and one of the main components of the extracellular matrix (ECM), the environment that provides structural and biochemical support to any type of cell[1].

A NATURAL COLLAGEN BARRIER

The ECM is also a physical barrier that divides one tissue from another. For example, collagen fibres naturally contained within the ECM and in the OsteoBiol® collagen membranes separate osteogenic cells from epithelial cells and fibroblasts[2].

AVOIDING SOFT TISSUE INGROWTH

Indeed, fibroblasts migration and their subsequent proliferation may jeopardise the work of osteogenic cells. As a consequence, the bone defect is filled by soft tissues and a limited amount of newly formed bone is expected[3]: that is the biological rationale behind the use of OsteoBiol® collagen membranes[4,5].

PROTECTION AGAINST FOOD AND BACTERIA

In addition, the collagen contained within the ECM around gingival cells acts as a barrier against food contamination and bacteria that may proliferate and damage the anatomical structures around teeth or put at risk new bone formation. Scientific studies demonstrate that OsteoBiol® collagen membranes avoid graft contamination, thus allowing successful post-operative healing[4,5].

COLLAGEN MEMBRANE

The collagen contained within the ECM also acts as a scaffold for the growth of fibroblasts and epithelial cells[1], the two main components of the gingiva.

Being naturally similar to the collagen contained within the ECM, this precious protein retained within the OsteoBiol® collagen membranes allows soft tissues to grow onto *Evolution* and within *Derma* membranes[3-5].

Hence, OsteoBiol® collagen membranes can be used in various surgical procedures to protect and stabilise the graft (*Evolution*) or increase the thickness of the soft tissues (*Derma*).

SUPPORTING SOFT TISSUE GROWTH

A NATURAL COLLAGEN SCAFFOLD

AN ALTERNATIVE TO THE GOLD STANDARD

1.Theocharis AD et al. Adv Drug Deliv Rev, 2016 Feb 1;97:4-27
2.Fischer KR et al. Ann Anat, 2020 Sep;231:151524
3. Barone A et al. J Periodontol, 2014 Jan;85(1):14-23
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THE ADVANTAGES OF OUR

OSTEOBIOL® COLLAGEN MEMBRANES: A UNIQUE PRODUCT LINE

Tecnoss® developed two families of collagen membranes[1] (*Evolution* from xenogenic pericardium and peritoneum and *Derma* from porcine dermis) to provide the best handling, the ideal thickness, consistency, stretchability, and optimal regenerative results in adequate re-entry time.
Today it is finally possible to achieve predictable clinical successes in most regenerative protocols[1] with the security and support of 25 years of clinical research.

Alternative to CTG for soft tissue augmentation

Wide portfolio of membranes

COLLAGEN MEMBRANES

Graft protection and stabilization are necessary to allow bone and soft tissue regeneration. Various *in vitro* and experimental studies demonstrated that OsteoBiol® collagen membranes have an appropriate resorption time[2] to maintain the graft stable and isolated and allow predictable hard and soft tissue healing[3-8].

In some cases, Connective Tissue Graft (CTG), the gold standard for soft tissue regeneration, is necessary to achieve optimal and predictable esthetic outcomes. Because CTG is available in limited quantities and requires to expose patients to multiple surgeries, Tecnoss® designed a collagen membrane to help dentists overcome CTG scarcity: *Derma*. Dozens of international studies showed that *Derma* can be used as an alternative to CTG when augmenting soft tissues around teeth and implants and treating mild gingival recessions[9-12].

25 years of clinical experience[1] demonstrated that the OsteoBiol® collagen membranes protect the graft, stabilise it[3-8] and augment soft tissues[9-12] in several surgical procedures.

PROTECTION AND STABILISATION OF THE GRAFT

AN ALTERNATIVE TO THE GOLD STANDARD

A LONG HISTORY OF CLINICAL EXCELLENCE

1. Romasco T et al. J Funct Biomater, 2022 Aug 18;13(3):121
2. Vallecillo-Rivas M et al. Polymers (Basel), 2021 Sep 5;13(17):3007
3. Barone A et al. J Periodontol, 2014 Jan;85(1):14-23
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5. Barone A et al. Clin Implant Dent Relat Res, 2016 Dec;18(6):1103-1112
6. Esposito et al. Eur J Oral Implantol, 2015 Autumn;8(3):233-44
7. Piana P et al. Int J Periodontics Restorative Dent, 2013 Mar-Apr;33(2):159-66
8. Barone A et al. Clin Oral Implants Res, 2015 Jul;26(7):806-13
9. Matoh U et al. Int J Periodontics Restorative Dent, 2019;39(3):439-446
10. Fischer K et al. Clin Implant Dent Relat Res, 2019;1-8
11. Fischer K et al. Quintessence Int, 2014 Nov-Dec;45(10):853-60
12. Minniti A et al. J Clin Med, 2024 May 17;13(10):2954

Porcine origin

Codes	Packaging	Size	Thickness	Mean observed re-entry time
EM03XS	1 Blister	30x30 mm	0,15-0,25 mm	About 2 months
EM02HS	1 Blister	20x20 mm	0,36-0,45 mm	About 4/6 months
EM03HS	1 Blister	30x30 mm	0,36-0,45 mm	About 4/6 months

Equine origin

Codes	Packaging	Size	Thickness	Mean observed re-entry time
EV02LLE	1 Blister	20x20 mm	0,26-0,35 mm	About 3/4 months
EV03LLE	1 Blister	30x30 mm	0,26-0,35 mm	About 3/4 months
EV02HHE	1 Blister	20x20 mm	0,36-0,45 mm	About 4/6 months
EV03HHE	1 Blister	30x30 mm	0,36-0,45 mm	About 4/6 months
EV04LLE	1 Blister	40x40 mm	0,26-0,35 mm	About 3/4 months
EV06LLE	1 Blister	80x60 mm	0,26-0,35 mm	About 3/4 months

Description

100% heterologous pericardium or peritoneum tissue

Dried membrane with one smooth side and one micro-rough side

Evolution X-Fine: thickness from 0,15 to 0,25 mm
(ref: EM03XS)

Evolution Fine: thickness from 0,26 to 0,35 mm
(ref: EV02LLE EV03LLE EV04LLE EV06LLE)

Evolution Standard: thickness from 0,36 to 0,45 mm
(ref: EM02HS EM03HS EV02HHE EV02HHE)

Characteristics

Evolution membranes originate from xenogenic pericardium or peritoneum.

The membrane structure, made of dense collagen fibres of high consistency and resistance, makes it a valid choice to protect and stabilise the bone graft in most surgical procedures.

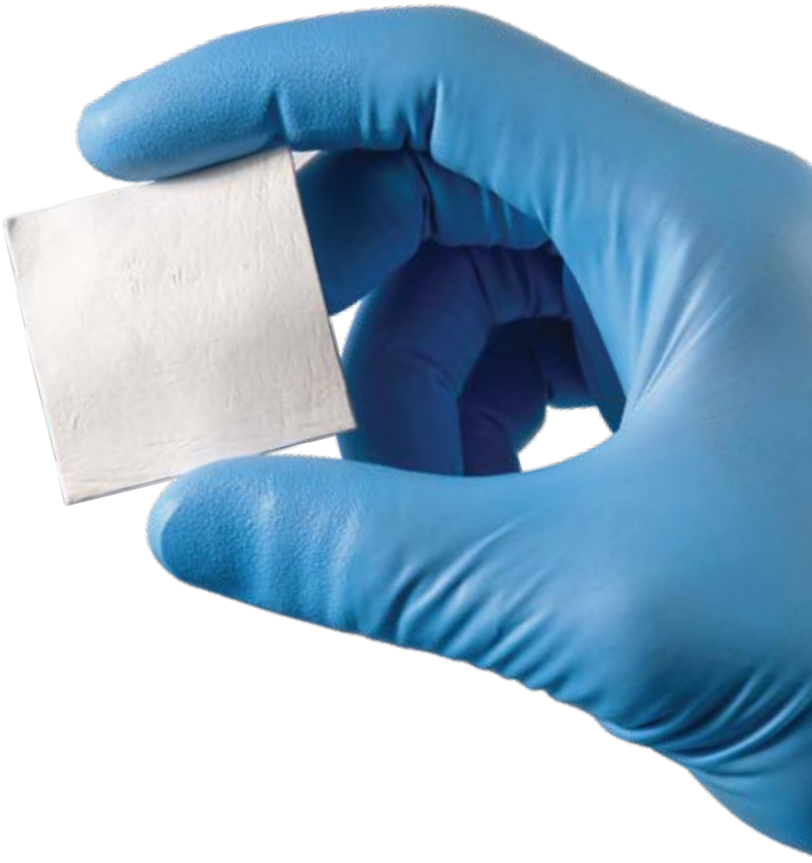
These membranes are gradually resorbable[1] and showed great resistance to degradation *in vitro* tests[2-4].

How to handle *Evolution*

The membrane can be shaped with sterile scissors until the desired size is reached; unless the grafting site is already bleeding, the membrane should be hydrated with physiological solution.

Once it acquires the desired plasticity, it must be adapted to the grafting site.

In addition, when exposed intentionally or unintentionally, ***Evolution*** collagen membranes allow second-intention soft tissue healing[5]



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2. Toledano M et al. Polymers (Basel), 2020 Jun 4;12(6):1290
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5. Barone A et al. J Periodontol, 2014 Jan;85(1):14-23

Porcine origin

Codes	Packaging	Size	Thickness	Mean observed re-entry time
ED02LS	1 Blister	20x20 mm	0,4-0,6 mm	About 1 month
ED75SS	1 Blister	7x5 mm	2-3 mm	About 5 months
ED15SS	1 Blister	15x5 mm	2-3 mm	About 5 months
ED03SS	1 Blister	30x30 mm	2-3 mm	About 5 months
ED05FS	1 Blister	50x50 mm	0,8-1 mm	About 3 months
ED21FS	1 Blister	12x8 mm (Oval)	0,8-1 mm	About 3 months
ED25FS	1 Blister	25x25 mm	0,8-1 mm	About 3 months
ED05SS	1 Blister	50x50 mm	2-3 mm	About 5 months

Description

High density collagen membrane from porcine dermis

Characteristics

Derma is a family of collagen membranes that have been used for soft tissue augmentation[1-8].

They are gradually integrated[1] with the autologous soft tissues thanks to the presence of natural collagen fibres[2].

Their resistance allows perfect stabilization and prolonged protection of the underlying graft[3] in socket regeneration procedures. ***Derma*** strong consistency guides soft tissue closure and avoids its invagination.

Being an alternative to CTG, ***Derma*** has been used to augment soft tissues and to improve the quality of keratinized tissues[4] around teeth, and implants[5] or to treat mild gingival recessions[6,7].

How to handle *Derma*

Derma can be shaped with scissors and must be hydrated in a sterile physiological solution until the desired shape and consistency are obtained.

1. Fickl S et al. Clin Oral Implants Res, 2015 Jul;26(7):799-805
2. De Marco P et al. Biomed Mater, 2017 Sep 13;12(5):055005
3. Tallarico M et al. Eur J Oral Implantol, 2017;10(2):169-178
4. Fischer K et al. Quintessence Int, 2014 Nov-Dec;45(10):853-60
5. Fischer K et al. Clin Implant Dent Relat Res, 2019;1-8
6. Fickl S et al. Quintessence Int, 2013;44(3):243-6
7. Matoh U et al. Int J Periodontics Restorative Dent, 2019;39(3):439-446

THE CLINICAL EXPERIENCE

Why choose OsteoBiol® biomaterials

Clinical cases & information

Scientific evidence

SEM image of ***GTO***® granules
Source: Politecnico di Torino, Italy

GTO®

The sticky xenograft

Why choose GTO®?

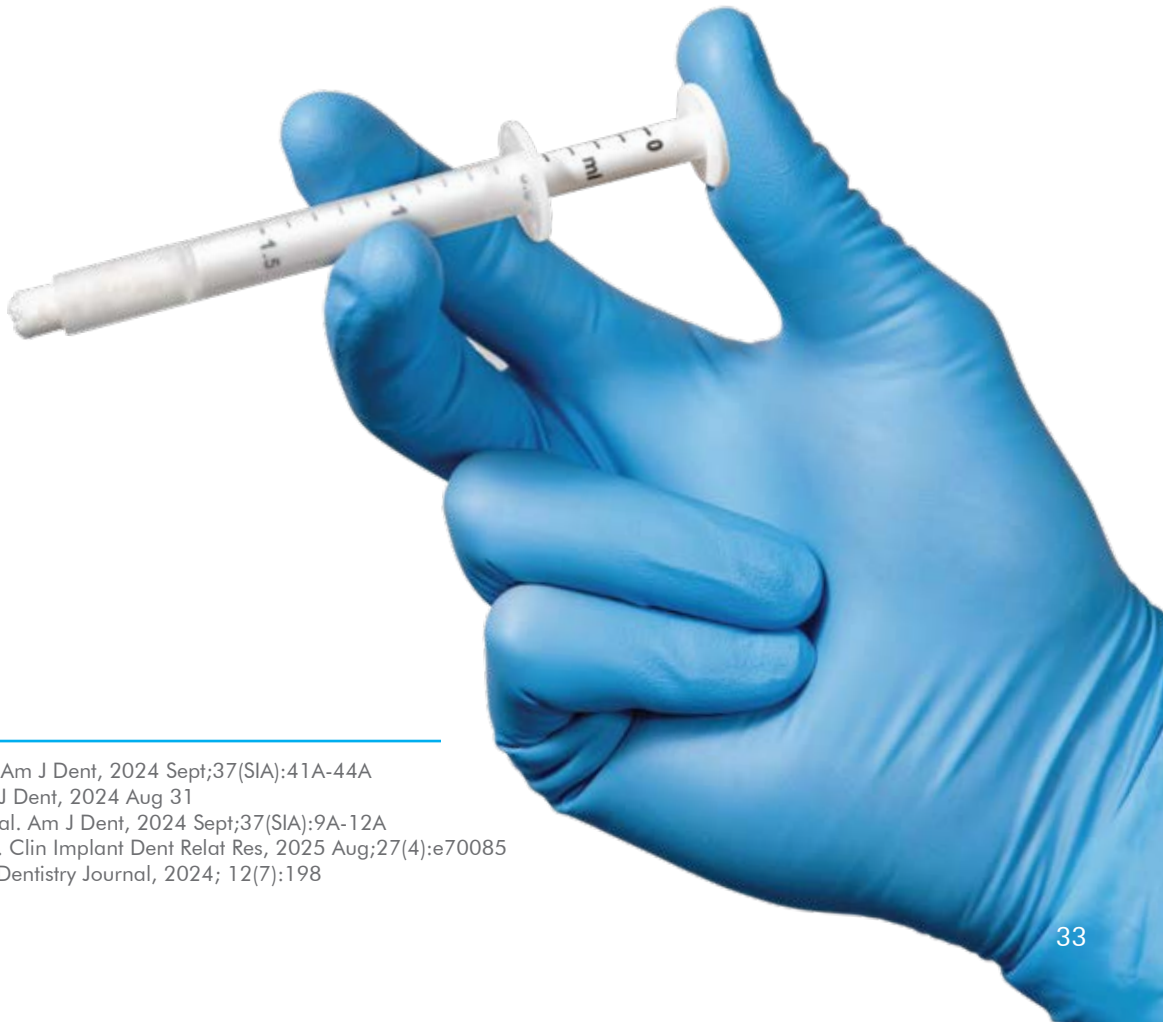
Bone defect conformation varies among patients.

***GTO®* is a Dual-Phase sticky xenograft** characterised by high adaptability to the recipient site and high stability once grafted.

GTO® allows adequate new bone formation[1-4] and socket volume preservation when used for GBR[5] in post-extractive sockets with delayed implant placement, even in case of compromised post-extractive sockets.

In combination with ***Lamina®***, ***GTO®* can also be the appropriate choice for the treatment of horizontal defects[1] (e.g. knife-edge ridges)**.

Thanks to its stickiness and ease of handling, ***GTO®*** can be used to regenerate bone around peri implant dehiscences[5].



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2. Canullo L et al. J Dent, 2024 Aug 31
3. Passarelli PC et al. Am J Dent, 2024 Sept;37(SIA):9A-12A
4. Cinquini C et al. Clin Implant Dent Relat Res, 2025 Aug;27(4):e70085
5. Menini M et al. Dentistry Journal, 2024; 12(7):198

Clinical cases & applications

RECONSTRUCTION OF A SEVERELY COMPROMISED MAXILLA

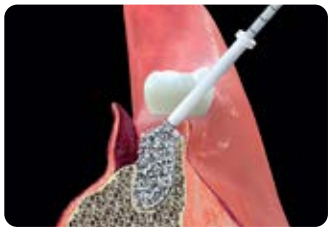
Sex: female - Age: 19 years old - Author: Dr. Patrick Palacci, private practice, France

1. The entire labial plate of bone in missing. The defect is 16 mm wide, 15 mm height, 5 mm depth.

2. *GTO*® is placed on top of the ridge with successive layers.

3. Four months later, the newly formed bone is well vascularised and ready to receive an implant treatment.

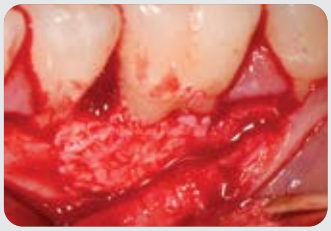
HORIZONTAL/ VERTICAL AUGMENTATION



TREATMENT OF A PERIODONTAL DEFECT

Sex: female - Age: 42 years old - Author: Prof. Patrick R. Schmidlin, University of Zurich, Switzerland

1. The pre-operative x-ray shows a deep intrabony defect.



2. *GTO*® is applied to regenerate the missing bone.

3. The x-ray after six months shows the intrabony defect replaced by an appropriate amount of newly formed bone.

PERIODONTAL REGENERATION

RESOLUTION OF A VESTIBULAR DEHISCENCE

Sex: female - Age: 35 years old - Author: Dr. Arturo Gallardo Flores, private practice, Spain

1. The patient reported a vestibular dehiscence in position 46.

2. *GTO*® is employed to reconstruct the bone vestibularly. A *Derma* is used as a protective collagen membrane.

3. After four months, an appropriate amount of new bone is regenerated.

HORIZONTAL AUGMENTATION

DISCOVER MORE

ON OUR WEBSITE

RECONSTRUCTION OF AN ATROPHIC MAXILLA

Sex: male- Age: 77 years old - Author: Prof. Tiziano Testori, University of Michigan, USA

1. The pre-operative intraoral view shows an edentolous area in the posterior maxilla.

2. Implants are placed simultaneously with *GTO®* after sinus floor elevation.

3. The clinical view reveals that implants are stable after five years.

LATERAL ACCESS SINUS LIFT

TREATMENT OF A COMPROMISED POST-EXTRACTION SOCKET

Sex: male - Age: 47 years old - Author: Prof. Antonio Barone, University of Pisa, Italy

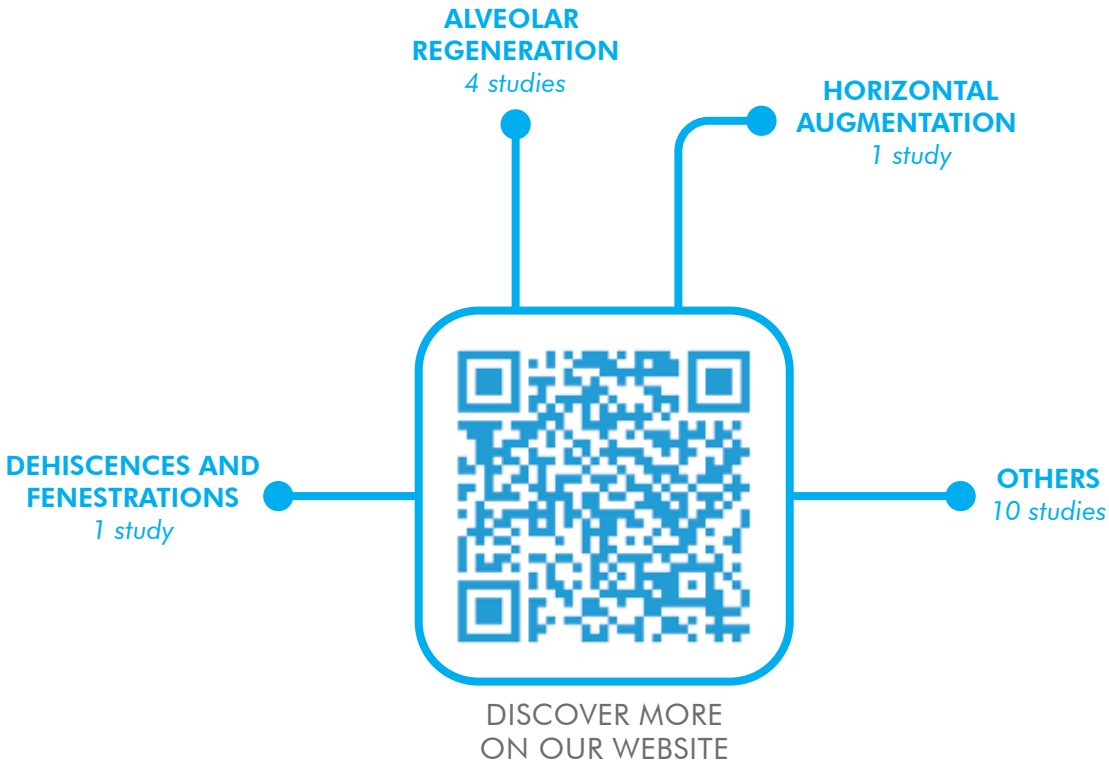
1. Tooth extraction leads to a deep post-extractive socket lacking the buccal bone.

2. The defect is grafted with *GTO®* and the missing buccal bone is reconstructed with *Lamina® Soft*.

3. After six months, the site is ready to receive the implant.

ALVEOLAR REGENERATION

GTO®'s scientific evidence



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Passarelli PC, Lopez MA, Netti A, Felicetti A, Wychowański P, Garcia-Godoy F, Chiapasco M, D'Addona A.
Alveolar regeneration of the post-extraction site with cortical deficiency using the Lamina Socket Sealing Technique: retrospective study with histomorphometric analysis of regenerated bone and evaluation of soft tissue changes. Part 2/2.
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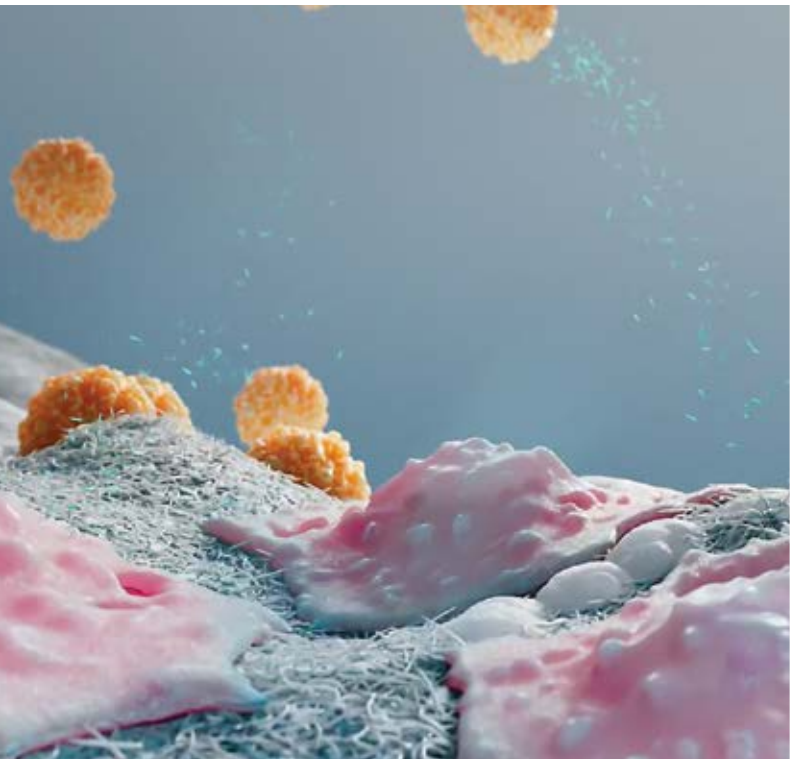
OsteoBiol® GTO®
by Tecnoss

THE STICKY XENOGRAFT



OUTSTANDING STABILITY DUE TO IDEAL VISCOSITY
TSV GEL INSIDE FOR **OPTIMAL STICKINESS**
EASILY **ADAPTABLE** TO THE RECIPIENT SITE
DIRECTLY INJECTABLE INTO BONE DEFECT
READY-TO-USE IN STERILE SYRINGE
FASTER AND SAFER SURGICAL HANDLING
INNOVATIVE **DUAL-PHASE** XENOGRAFTS
CORTICO-CANCELLOUS **COLLAGENIC** MATRIX

SEM image of ***mp3***® granules
Source: Politecnico di Torino, Italy

mp3®

The injectable Dual-Phase xenograft

Why choose mp3®?

Although autogenous bone (AB) is still the gold standard for bone regeneration, its harvesting is an invasive and time-consuming process.

***mp3®* is a ready-to-use Dual-Phase biomaterial** that can be directly injected into sinus cavities, showing comparable results to autogenous bone chips[1,2].

In addition, ***mp3®*** can be easily grafted into post-extractive sockets to preserve the ridge volume[3] and allow a correct second-stage implant placement. ***mp3®*** can be used in combination with ***Evolution*** membranes[1-3].

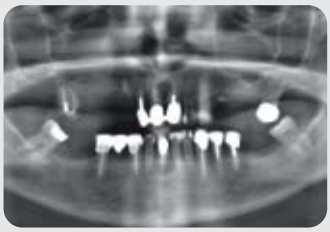
Thanks to its similarity to natural human bone[1,4], ***mp3®* allows adequate graft volume preservation**[3], a healthy new bony tissue formation[1] and ultimately, **a successful implant rehabilitation over time**[1,5-7].

1. Correia et al. Materials (Basel), 2021 Jun 21;14(12):3439
2. Correia et al. Dentistry Journal, 2024; 12(2):33
3. Barone A et al. Clin Implant Dent Relat Res. 2017 Aug;19(4):750-759
4. Figueiredo M et al. J Biomed Mater Res B Appl Biomater, 2010 Feb; 92(2):409-19
5. Pistilli R et al. J Dent, 2022 Jun;121:104137
6. Buonocunto N et al. Clin Implant Dent Relat Res, 2023 Dec;25(6):1044-1055
7. Cinquini C et al. Clin Implant Dent Relat Res, 2024 Dec;26(6):1162-1171

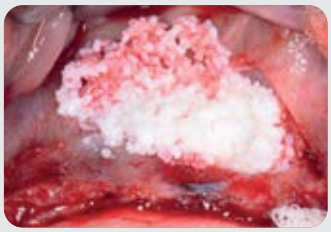
Clinical cases & applications

LATERAL ACCESS SINUS LIFT AND HORIZONTAL AUGMENTATION

Sex: female - Age: 50 years old - Author: Prof. Tiziano Testori, University of Michigan, USA



1. Based on the pre-operative radiograph, all teeth are considered hopeless.



2. Upon sinus membrane elevation, *mp3*® is injected into the antrostomy.

3. Six months later, implants are placed in a high-quality bone tissue.

LATERAL ACCESS SINUS LIFT/ HORIZONTAL AUGMENTATION

TREATMENT OF A COMPROMISED ALVEOLAR SOCKET

Sex: female - Age: 54 years old - Author: Prof. Antonio Barone, University of Pisa, Italy

1. The pre-operative clinical view shows a fractured tooth.

2. *mp3*® is grafted into the post-extractive socket and protected with a *Derma* collagen membrane.

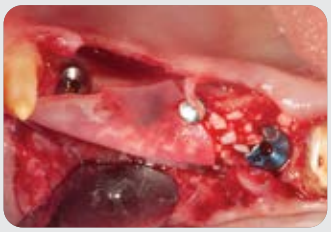
3. After seven years, the clinical view shows no sign of peri-implantitis or mucositis.

ALVEOLAR REGENERATION

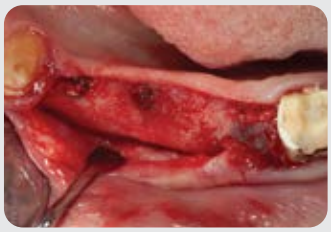
TREATMENT OF A HORIZONTAL DEFECT

Sex: Female - Age: 43 years old - Author: Prof. Michael Weinländer, University of Graz, Austria

1. Three implants are positioned in a narrow ridge.

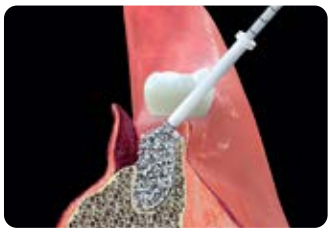


2. *mp3*® and *Lamina*® *Soft* are used to reconstruct the defect.



3. The clinical view shows newly formed bone after eight months.

HORIZONTAL AUGMENTATION

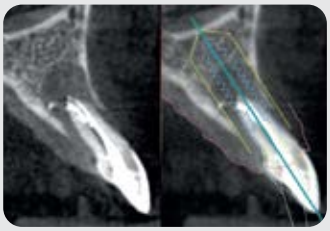


DISCOVER MORE

ON OUR WEBSITE

THE MULTI-LAYER TECHNIQUE

Sex: female - Age: 38 years old - Author: Dr Iñaki Gamborena, private practice, Spain



1. The CBCT shows that both the buccal and the palatal bone are missing.

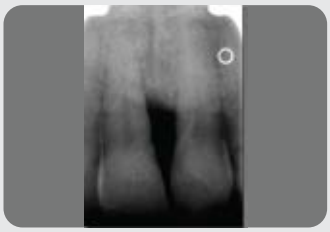
2. *mp3*® is packed around the implant. The buccal and palatal bone are reconstructed with *Lamina*® *Soft*.

3. The four-year follow-up radiograph shows an implant surrounded by vital bone.

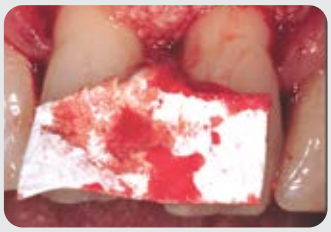
MULTI-LAYER TECHNIQUE

THE MODIFIED PAPILLA PRESERVATION TECHNIQUE

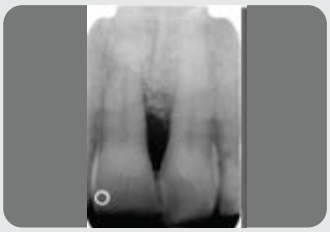
Sex: male - Age: 61 years old - Author: Dr. Gerd Körner, private practice, Germany



1. The initial x-ray shows a deep periodontal defect (9 mm depth).

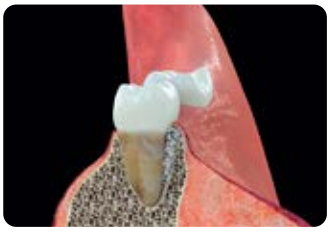


2. The defect is filled with *mp3*® and covered with a tailored *Evolution* membrane.

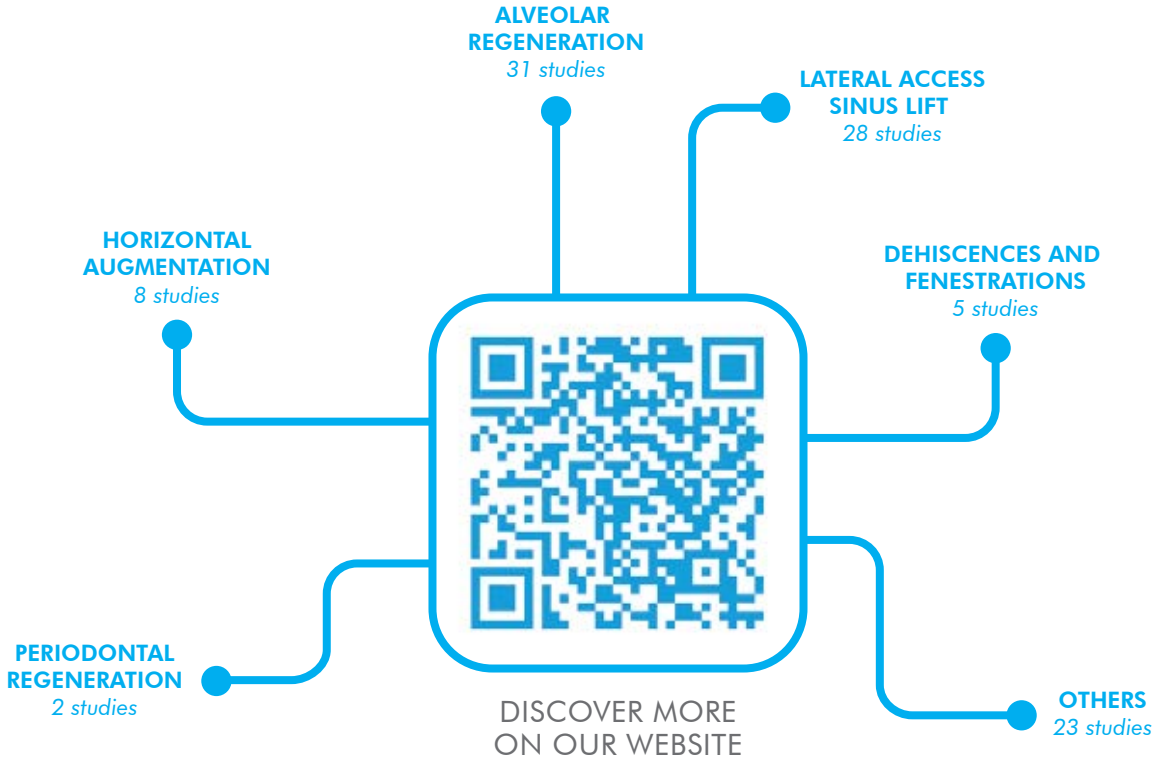


3. After four months, the intrabony defect is resolved.

PERIODONTAL REGENERATION



mp3®'s scientific evidence



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Clinical indications and outcomes of sinus floor augmentation with bone substitutes: an evidence-based review.
Clin Implant Dent Relat Res. 2024 Oct 17

SEM image of ***Gel 40*** granules
Source: Politecnico di Torino, Italy

Gel 40

The injectable Dual-Phase bone gel

Why choose Gel 40?

The perforation of the Schneiderian membrane is one of the major complications that may occur during transcrestal sinus floor elevation[1].

Various studies reported that ***Gel 40*** simplifies the transcrestal sinus floor elevation[2-6] with immediate implant positioning: the collagen gel contained in ***Gel 40*** gently detaches the sinus membrane making the surgery easier, faster[4], and predictable[4,5].

Finally, in case of accidental perforation of the Schneiderian membrane, ***Gel 40*** bone granules accidentally dispersed into the sinus are easily extruded without major complications[6].

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2. Barone A et al. Int J Periodontics Restorative Dent, 2008 Jun;28(3):283-9
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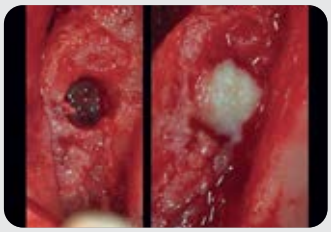
Clinical cases & applications

DISCOVER MORE
ON OUR WEBSITE

CRESTAL SINUS LIFT WITH IMMEDIATE IMPLANT PLACEMENT

Sex: male - Age: 59 years old - Authors: Prof. Claudio Stacchi, University of Trieste, Italy and Dr. Fabio Bernardello, private practice, Italy

1. An implant was inserted to replace tooth in position 16 about ten years before. The implant subject to this case was placed in 17.



2. *Gel 40* is injected into the antrostomy.

3. Seven months after the surgery, *Gel 40* remodeled into new bone above the new implant apex.

CRESTAL ACCESS SINUS LIFT

TREATMENT A PERIODONTAL DEFECT

Sex: female - Age: 49 years old - Author: Dr. Tom Kobe, private practice, Slovenia

1. The patient shows a deep periodontal defect.

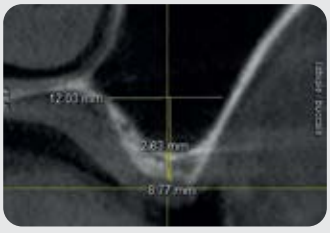
2. *Gel 40* is injected into the defect to regenerate bone around the tooth root.

3. At one-year follow-up, the bone has been reconstructed.

PERIODONTAL REGENERATION

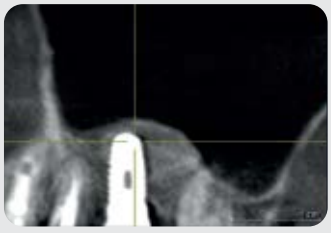
TRANSCRESTAL SINUS FLOOR ELEVATION

Sex: female - Age: 55 years old - Author: Dr. Fabio Bernardello, private practice, Italy



1. Based on the sinus width, the patient is considered eligible for a transcrestal sinus floor elevation.

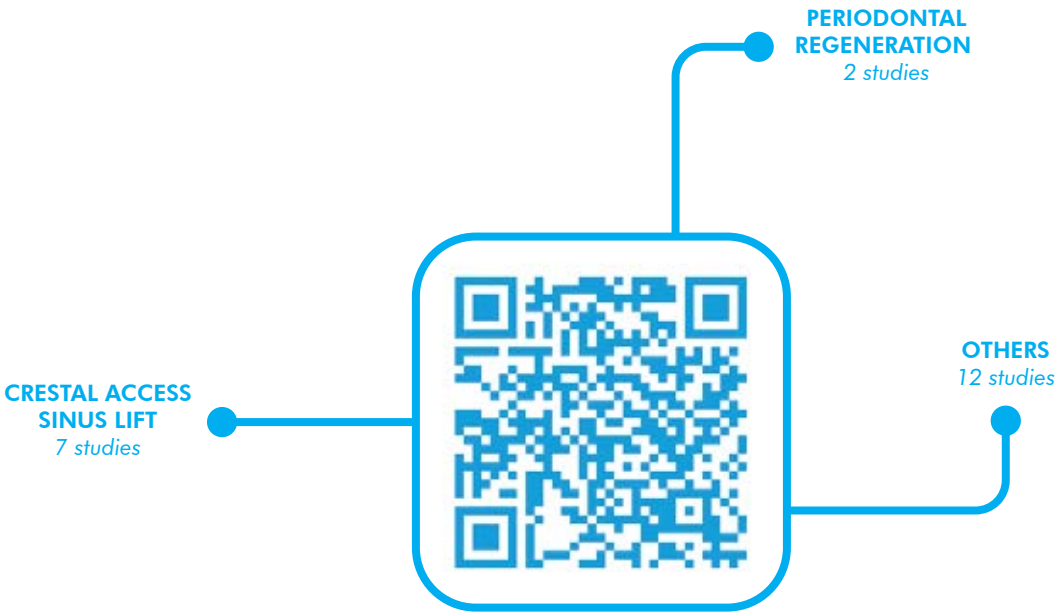
2. *Gel 40* is used to detach the Scheiderian membrane. Immediate implant insertion prevents the biomaterial extrusion.



3. *Gel 40* has been remodeled into new bone above the new implant.

CRESTAL ACCESS SINUS LIFT

Gel 40's scientific evidence



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Clin Exp Dent Res. 2024 Feb;10(1):e853

SEM image of ***Putty*** granules
Source: Politecnico di Torino, Italy

Putty

The injectable Dual-Phase bone paste

Why choose Putty?

Peri-implant and small self-containing bone defects can be effectively grafted with a viscous biomaterial with small-diameter granules.

The "soft" consistency, the small-diameter bone granules of ***Putty*** and the practical ready-to-use syringe packaging make it a valid choice for small self-containing peri-implant lesions[1, 2] and small defects with a self-containing cavity.

Thanks to its collagen gel content, ***Putty*** gently detaches the sinus membrane, thus being a valid option for transcrestal sinus floor elevation[3] with immediate implant placement.

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2. Cassetta M et al. Int J Periodontics Restorative Dent, 2012 Oct;32(5):581-9
3. Saglanmak A et al. J Clin Med, 2024 Apr 11;13(8):2225

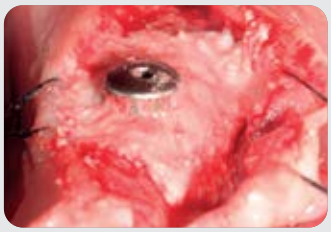
Clinical cases & applications

DISCOVER MORE
ON OUR WEBSITE

TREATMENT OF A PERI-IMPLANT LESION

Sex: male - Age: 59 years old - Author: Dr. Emilio Rodríguez Fernández, private practice, Spain

1. The defect and the implant surface are cleaned and decontaminated.



2. The peri-implant lesion is filled with *Putty*.

3. Three months later, the peri-implant lesion is resolved.

PERI-IMPLANT LESION

TRANSCRESTAL SINUS FLOOR ELEVATION

Sex: female - Age: 51 years old - Author: Dr. Luca Comuzzi, private practice, Italy

1. The initial x-ray shows a bone defect suitable for a transcrestal sinus elevation.

2. The Schneiderian membrane is gently elevated with *Putty*.

3. The twelve-year follow-up radiograph shows an implant surrounded by vital bone.

CRESTAL ACCESS SINUS LIFT

INFERIOR ALVEOLAR NERVE (IAN) TRANSPOSITION AND HORIZONTAL AUGMENTATION

Sex: female - Age: 43 years old - Authors: Prof. Raquel Zita and Dr. Hugo Moreira, private practices, Portugal

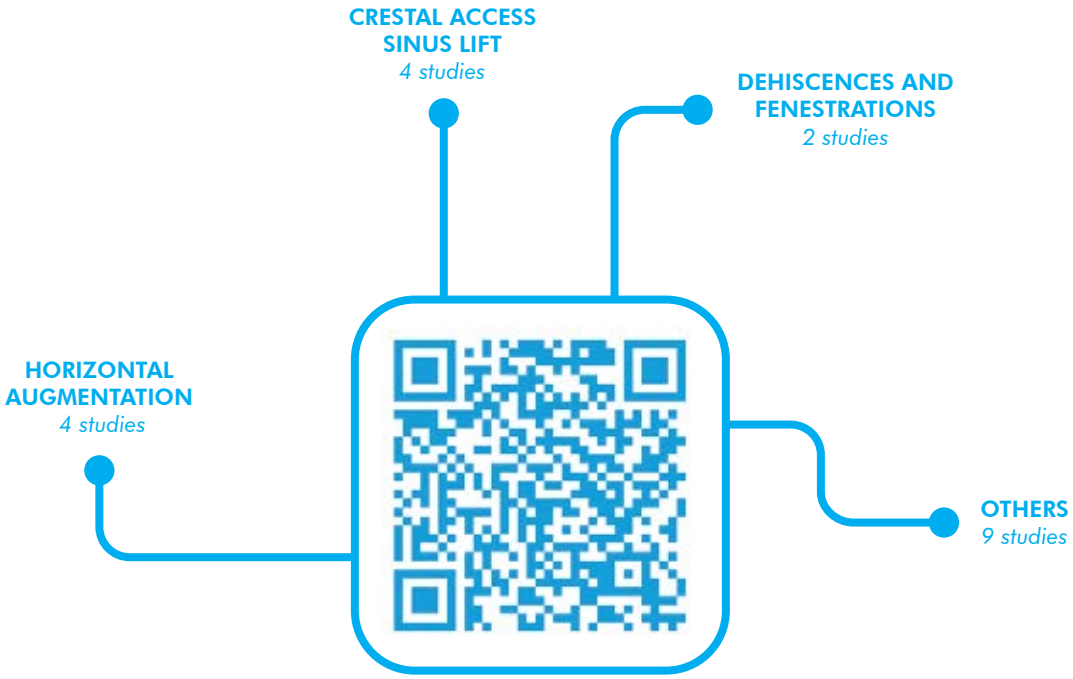
1. The initial panoramic x-ray shows the mental foramen near the bone ridge.

2. *Lamina*® is placed after grafting a mixture of *Putty*, *mp3*® and Plasma Rich Fibrin (PRF)

3. The panoramic x-ray shows that all implants are placed and stable.

HORIZONTAL AUGMENTATION

Putty's scientific evidence



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Clinical indications and outcomes of sinus floor augmentation with bone substitutes: an evidence-based review.
Clin Implant Dent Relat Res. 2024 Oct 17

SEM image of ***Gen-Os***® granules
Source: Politecnico di Torino, Italy

Gen-Os®

The advantages of a Dual-Phase xenograft

Why choose Gen-Os®?

Collagen is a precious protein for bone regeneration.

Gen-Os® is the first Dual-Phase xenogenic bone substitute developed by Tecnoss® physically and chemically similar to autogenous bone[1,2].

Gen-Os® can be used alone or mixed with AB chips whenever necessary[3-5] for pre-implant and peri-implant regeneration procedures.

In addition, due to its granulometry range, ***Gen-Os®*** has been successfully used for the treatment of deep and narrow periodontal defects[6-10].

Finally, more than 25 years of clinical experience and about 100 scientific studies showed that ***Gen-Os®*** is a valid universal bone filler that allows predictable results in various surgical procedures[3-11].

1. University of Duisburg-Essen, Germany
2. Figueiredo M et al. J Biomed Mater Res B Appl Biomater, 2010 Feb; 92(2):409-19
3. Pellegrino G al al. Int J Oral Implantol (Berl), 2024 May 27;17(2):175-185
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Clinical cases & applications

TREATMENT OF A PERIODONTAL DEFECT

Sex: male - Age: 40 years old - Author: Dr. Tom Kobe: private practice, Slovenia

1. A vertical incision (EPPT) at the adjacent tooth is done to expose the defect.

2. The defect is filled with *Gen-Os®*.

3. The one-year follow-up shows the resolution of the bone defect.

PERIODONTAL REGENERATION

MANAGEMENT OF A DEHISCENCE

Sex: female - Age: 45 years old - Authors: Prof. Fernando Guerra and Dr. Rui Falacho, University of Coimbra, Portugal

1. At the time of implant placement, a dehiscence is reported.

2. *Gen-Os®* is grafted to regenerate new bone.

3. The three-year follow up shows the implant surrounded by vital bone.

DEHISCENCES AND FENESTRATIONS

TRANSCRESTAL SINUS FLOOR ELEVATION

Sex: female - Age: 66 years old - Author: Prof. Claudio Stacchi, University of Trieste, Italy

1. The pre-operative x-ray shows 2,5 mm residual bone height and the presence of an Underwood septum.

2. Sinus is grafted by condensing *Gen-Os®* with osteotomes, until a minimum height of 10 mm was obtained.

3. The clinical view shows newly formed bone after eight months.

CRESTAL ACCESS SINUS LIFT

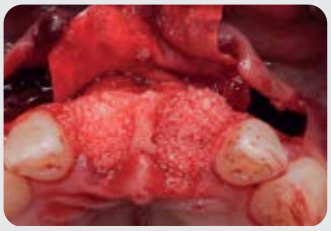
DISCOVER MORE

ON OUR WEBSITE

GBR AND DELAYED IMPLANT PLACEMENT IN THE ESTHETIC ZONE

Sex: female - Age: 68 years old - Author: Dr. Irfan Abas, private practice, The Netherlands

1. After retracting the flap, the inflammatory tissue is removed.



2. Alveoli are reconstructed with sticky bone (*Gen-Os*®+ Plasma Rich Fibrin).

3. A sufficient thickness of tissues for a natural emergence profile is achieved.

ALVEOLAR REGENERATION

AUTOTRANSPLANTED TOOTH WITH BONE FENESTRATION*

Sex: male - Age: 16 years old - Authors: Dr. Francesco Giachi Carù, private practice, Italy and Prof. Tiziano Testori, University of Michigan, USA

1. The superior cuspid is unrecoverable with traditional orthodontic treatment.

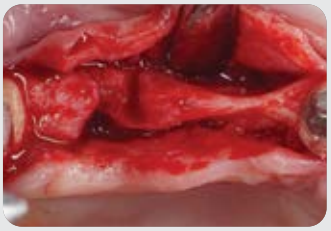
2. The cuspid is transplanted and the bone is reconstructed with sticky bone (*Gen-Os*® + Plasma Rich Fibrin).

3. The five-year follow-up clinical view shows no sign of complications in the area of the transplanted cuspid.

ALVEOLAR REGENERATION

TREATMENT OF A WIDE HORIZONTAL DEFECT

Sex: female - Age: 45 years old - Author: Dr. Pavel Yaroshevich, private practice, Russia



1. In the posterior maxilla, a full-thickness, slightly buccal flap is elevated in the keratinized gingiva.

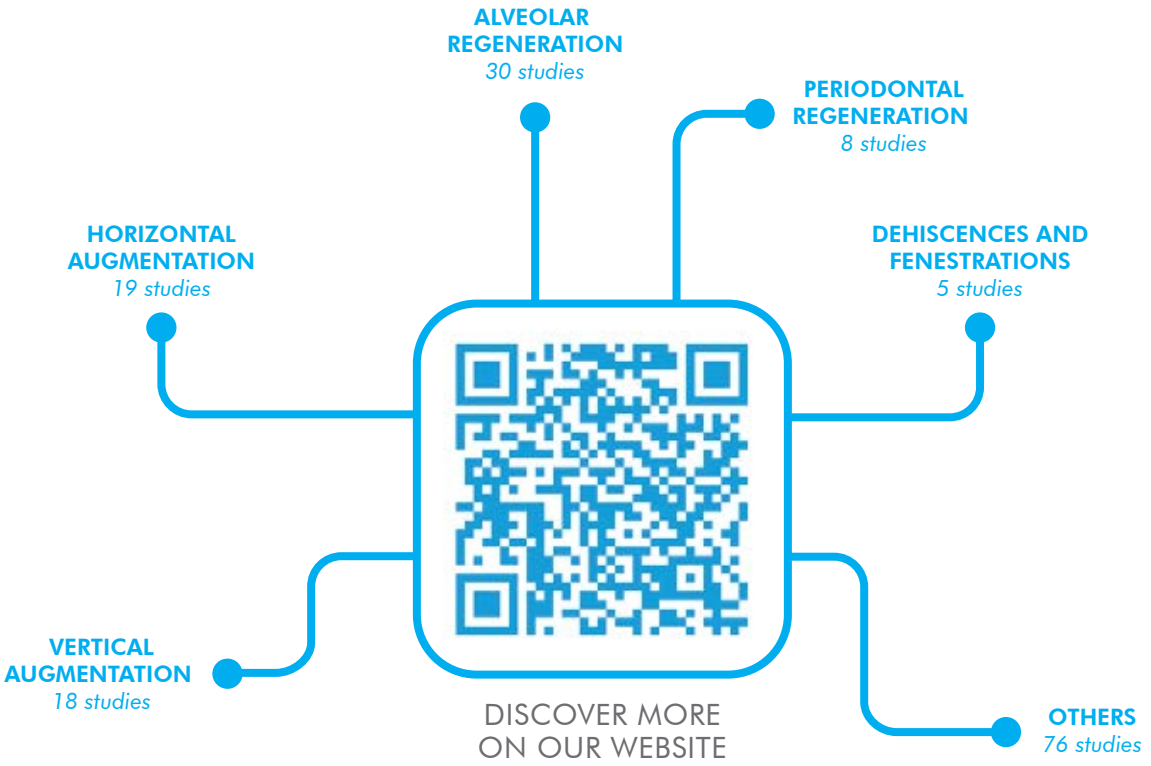
2. *Gen-Os*® is placed buccally and lingually on the defect to reconstruct the bone horizontally.

3. An increase in bone width is observed six months after augmentation.

HORIZONTAL AUGMENTATION

* Courtesy of Quintessenza Edizioni

Gen-Os®'s scientific evidence



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SEM image of ***Apatos***® granules
Source: Politecnico di Torino, Italy

Apatos®

The Dual-Phase microcrystalline hydroxyapatite

Why choose Apatos®?

Because of its capacity to preserve the volume of bone defects[1,2] and its medium-size granulometry, ***Apatos®*** is the proper ally for dentists' daily surgical practice.

Hence, ***Apatos®*** has been used as a valid alternative to autologous bone to regenerate and preserve the volume of bony lesions, treat two-wall defects[3] and molar or premolar extraction sockets[2].

When needed, ***Apatos®*** can be protected with ***Evolution*** membrane[4] or stabilised with ***Lamina®***[5].

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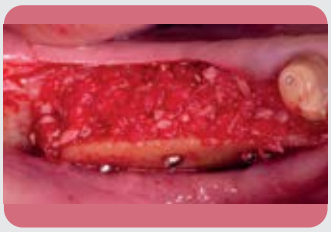
Clinical cases & applications

DISCOVER MORE
ON OUR WEBSITE

RECONSTRUCTION OF AN ATROPHIC MANDIBLE

Sex: female - Age: 45 years old - Author: Dr. Christopher Köttgen, private practice, Germany

1. The missing bony wall is reconstructed with *Tecnoss® Lamina® Hard*.



2. The defect is filled with a mix of 60% autogenous bone and 40% *Apatos®*.

3. The occlusal view of the regenerated area shows two stable implants surrounded by healthy soft tissue.

VERTICAL AUGMENTATION

TREATMENT OF A DEHISCENCE

Sex: female - Age: 42 years old - Author: Dr. Pablo Neira Vazquez, private practice, Spain

1. At the time of implant placement, a dehiscence is reported.

2. *Apatos®* is grafted to regenerate new bone.

3. The six-month follow-up clinical view shows an uneventful healing.

DEHISCENCES AND FENESTRATIONS

MANAGEMENT OF A POST-EXTRACTIVE SOCKET

Sex: male - Age: 25 years old - Authors: Dr. Antonio Acevedo and Dr. Antonio Maté De Haro, private practice, Spain

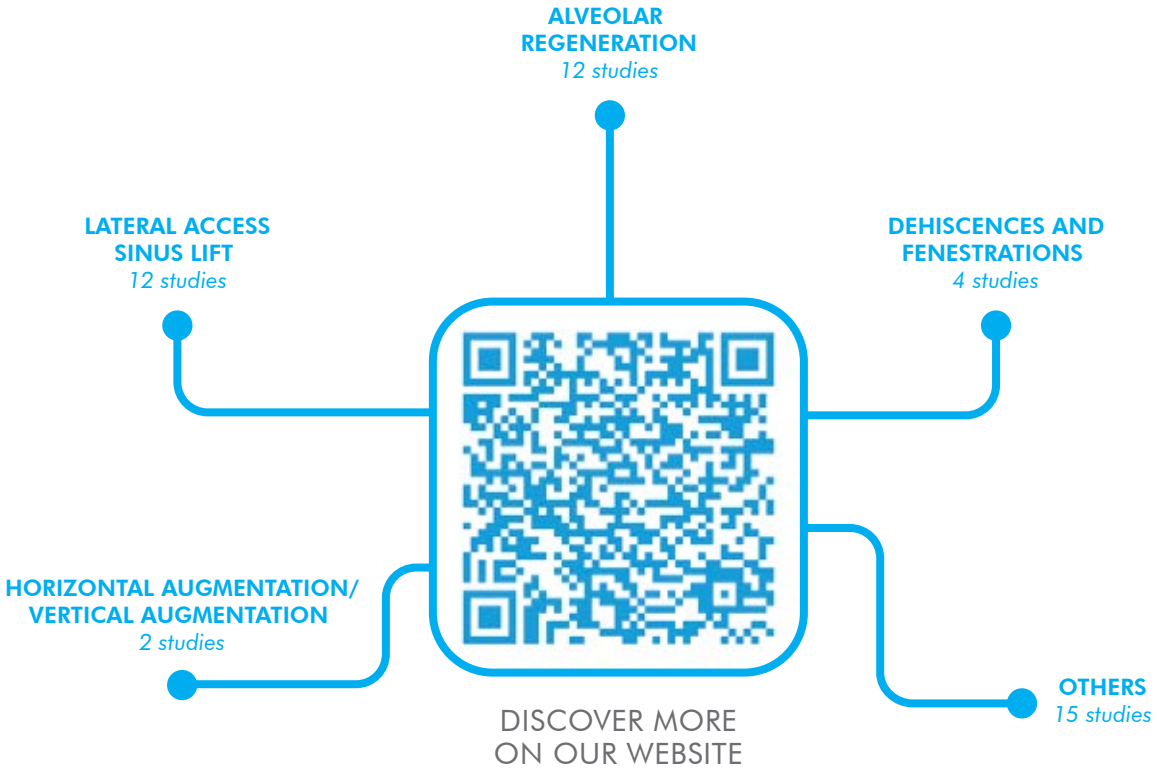
1. The fractured tooth is removed.

2. The post-extractive socket is filled with *Apatos®*. An *Evolution* membrane is used to cover and stabilise the graft.

3. An implant is placed in an appropriate amount of newly formed bone four months after surgery.

ALVEOLAR REGENERATION

Apatos®'s scientific evidence



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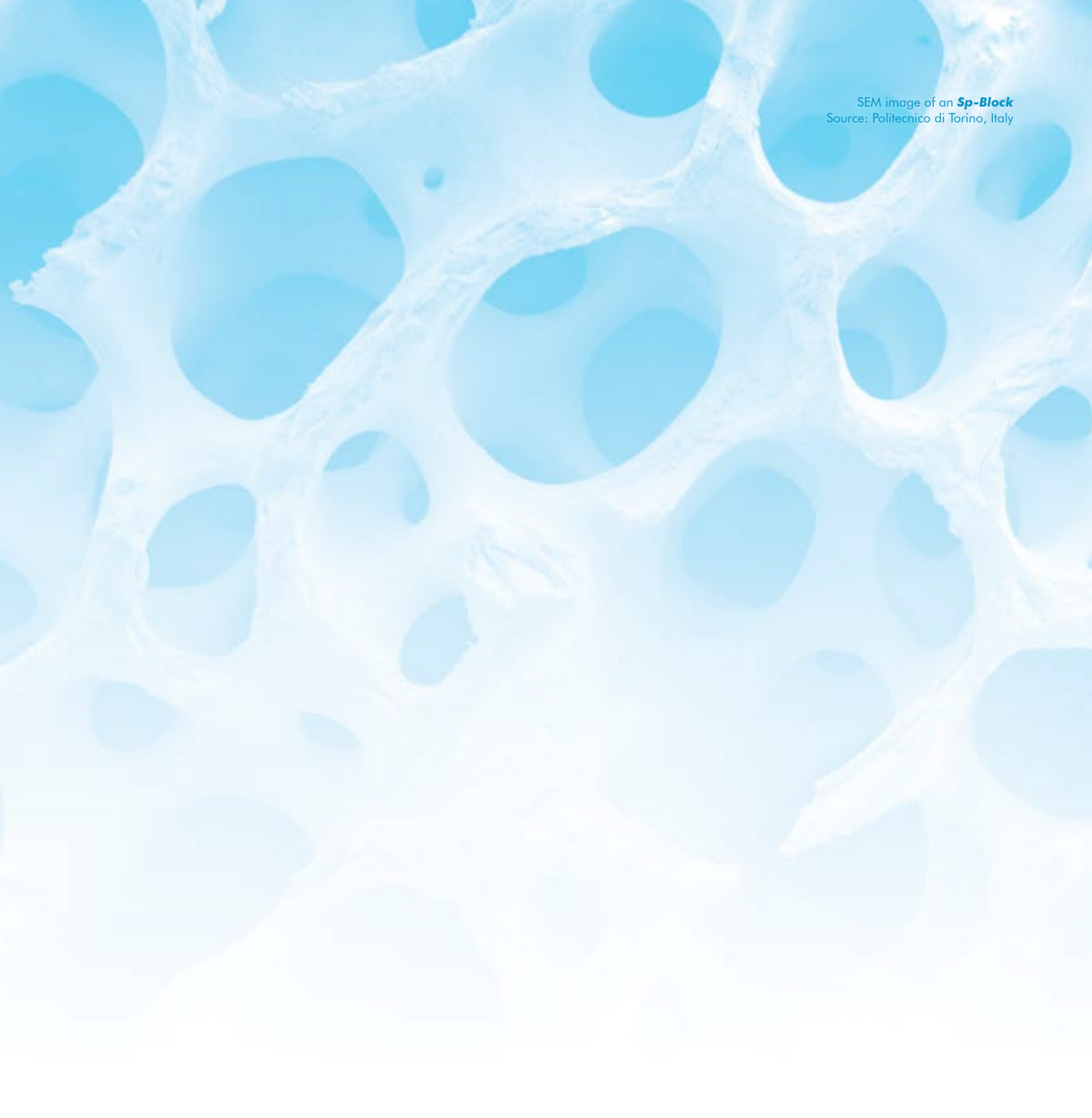

SEM image of an ***Sp-Block***
Source: Politecnico di Torino, Italy

Sp-Block

The Dual-Phase cancellous block

Why choose Sp-Block?

Vertical augmentation usually requires an extensive amount of autogenous bone, which increases surgical time and may cause more post-operative pain to the patient and increase the risk of morbidity.

In case of vertical augmentation with the inlay technique, the time to harvest an adequate amount of autogenous bone can be spared by using ***Sp-Block***.

This Dual-Phase cancellous block can be used as an alternative to autogenous bone blocks when a vertical gain in the posterior mandible is required[1-4] and the amount of residual crestal bone allows the inlay technique protocol.

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Clinical cases & applications

DISCOVER MORE
ON OUR WEBSITE

VERTICAL AUGMENTATION WITH OSTEOTOMY

Sex: male - Age: 77 years old - Authors: Dr Rustam Shamsutdinov and Dr. Ilgam Urazbakhtin, private practice, Russia.

1. A horizontal osteotomy is performed in the upper jaw ridge.

2. The bone is augmented with *Sp-Block*.

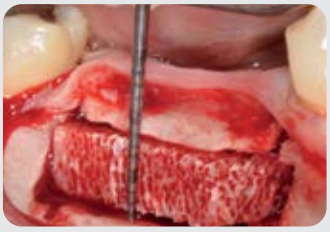
3. Two implants are inserted in the augmented ridge.

VERTICAL AUGMENTATION

THE INLAY TECHNIQUE

Sex: female - Age: 70 years old - Author: Prof. Pietro Felice, University of Bologna, Italy

1. The pre-operative clinical image shows an atrophic posterior right mandible.



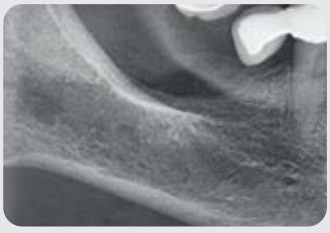
2. The pristine bone is elevated. *Sp-Block* is placed in the obtained space.

3. After one year, implants are stable and soft tissue is healthy.

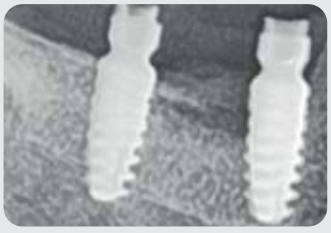
VERTICAL AUGMENTATION

THE INLAY TECHNIQUE

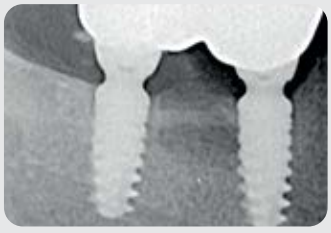
Sex: female - Age: 70 years old - Authors: Prof. Pietro Felice and Dr. Carlo Barausse, University of Bologna, Italy



1. The OPG shows the partially edentulous posterior mandible.



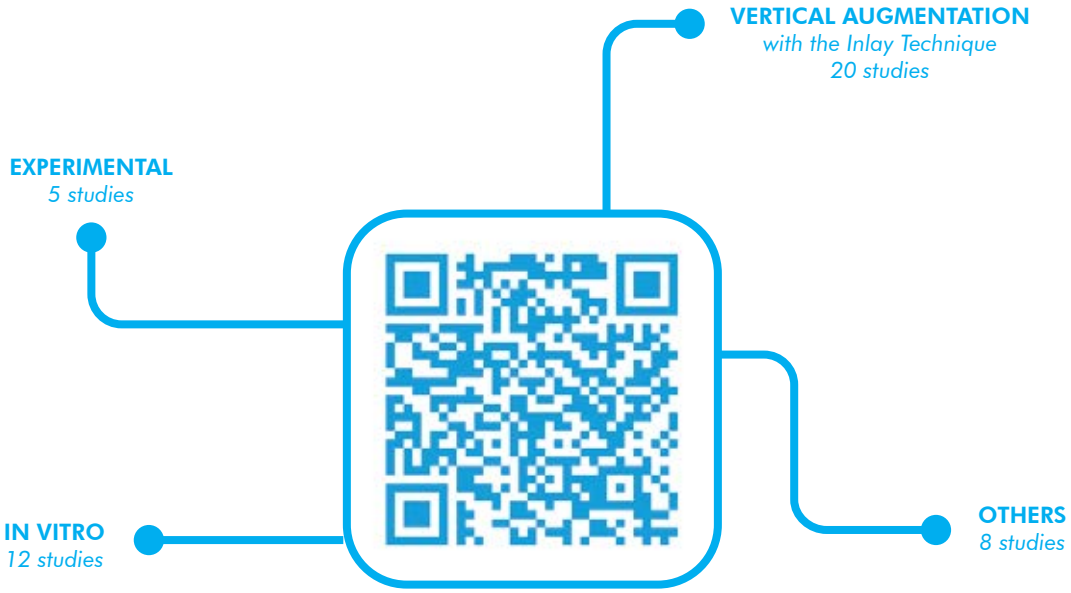
2. An implant is placed in an appropriate amount of newly formed bone four months after the surgery.



3. After five years, the implants are osseointegrated and stable.

VERTICAL AUGMENTATION

Sp-Block's scientific evidence



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SEM image of ***Lamina***
Source: Politecnico di Torino, Italy

Lamina®

The Dual-Phase cortical bone Lamina

Why choose Lamina®?

Autogenous bone (AB) cortical plates harvesting is a complex and invasive procedure and may lead to pain at the donor site, increasing the surgical time and cost. In addition, it may happen that such plates do not fully adapt to the anatomy of the defect to treat.

Under the name ***Lamina®*** oral surgeons can find a family of heterologous collagenic bone lamina that can be used as an alternative to AB cortical plates in various surgical procedures.

Lamina® Soft is a viable option to reconstruct the missing buccal bone in the esthetic area, allowing an immediate implant placement[1-4], high PES[3,4] and alveolar contour preservation[2,4].

Lamina® Soft and ***Lamina® Curved*** are also a well-documented choices to treat horizontal defects or knife-edge ridges in combination with Dual-Phase biomaterials[5].

Finally, ***Tecnoss® Lamina® Hard*** is a valid alternative to AB cortical bone plates for vertical augmentation with the Modified Shell Technique[6].

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Clinical cases & applications

COMPLEX RECONSTRUCTION OF AN ATROPHIC MAXILLA

Sex: female - Age: 53 years old - Author: Dr. Iñaki Gamborena, private practice, Spain

1. The clinical image shows the virtual representation of the full contour wax-up and the presence of the defects.

2. *Tecnoss® Lamina® Hard* is used to reconstruct the palatal and buccal walls in combination with *Apatos®* and autogenous bone chips.

3. After the treatment, the patients recovered her natural smile.

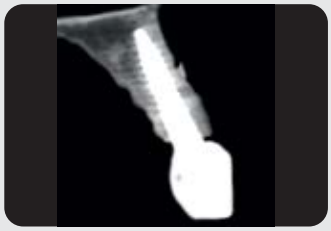
HORIZONTAL/ VERTICAL AUGMENTATION

THE VESTIBULAR SOCKET THERAPY

Sex: female - Age: 35 years old - Author: Dr. Abdelsalam Elaskary, private practice, Egypt

1. The CBCT scan shows a sagittal section of broken central incisor, with lost labial bone plate loss.

2. *Lamina® Soft* is stabilized using two membrane tacs apically according to the VST protocol.



3. The two years post-operative CBCT scan shows the regeneration of the labial plate of bone.

ALVEOLAR REGENERATION

TREATMENT OF A DEFECT IN THE ESTHETIC AREA

Sex: female - Age: 35 years old - Author: Prof. Tiziano Testori, University of Michigan, USA

1. The clinical pre-operative view shows a horizontal/vertical defect in the upper jaw.

2. *Lamina®* is used to protect the underlying collagenic biomaterial and regenerate the missing buccal bone.

3. Five-year follow-up. Soft tissues are healthy and the patient did not report any complication.

HORIZONTAL/ VERTICAL AUGMENTATION

DISCOVER MORE

ON OUR WEBSITE

THE MODIFIED SHELL TECHNIQUE

Sex: female - Age: 28 years old - Author: Prof. Arndt Happe, private practice, Germany

1. The CBCT scan shows a Class V defect with missing palatal wall.

2. *Tecnoss® Lamina® Hard* is fixed buccaly with osteosynthesis screws (1mm diameter) and the defect is filled with AB chips.

3. After four months, the clinical occlusal view shows a regenerated ridge.

VERTICAL AUGMENTATION

THE MULTI-LAYER TECHNIQUE

Sex: female - Age: 64 years old - Authors: Dr. Christian Maischberger and Prof. Hannes Wachtel, private practice, Germany

1. The clinical image shows an intraoral occlusal view of the upper jaw.

2. *Lamina® Soft, GTO®*, and subepithelial connective tissue graft are used for simultaneous hard and soft tissue augmentation.

3. The five-year follow-up clinical view shows no sign of complications in the area of the transplanted cuspid.

ALVEOLAR REGENERATION

TREATMENT OF A KNIFE-EDGE RIDGE

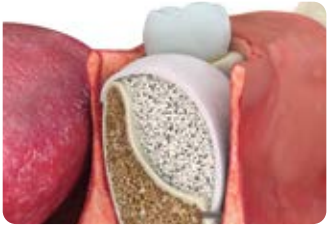
Sex: male - Age: 61 years old - Author: Dr. Pavel Yaroshevich, private practice, Russia

1. The occlusal view of the posterior mandible reveals a knife edge ridge.

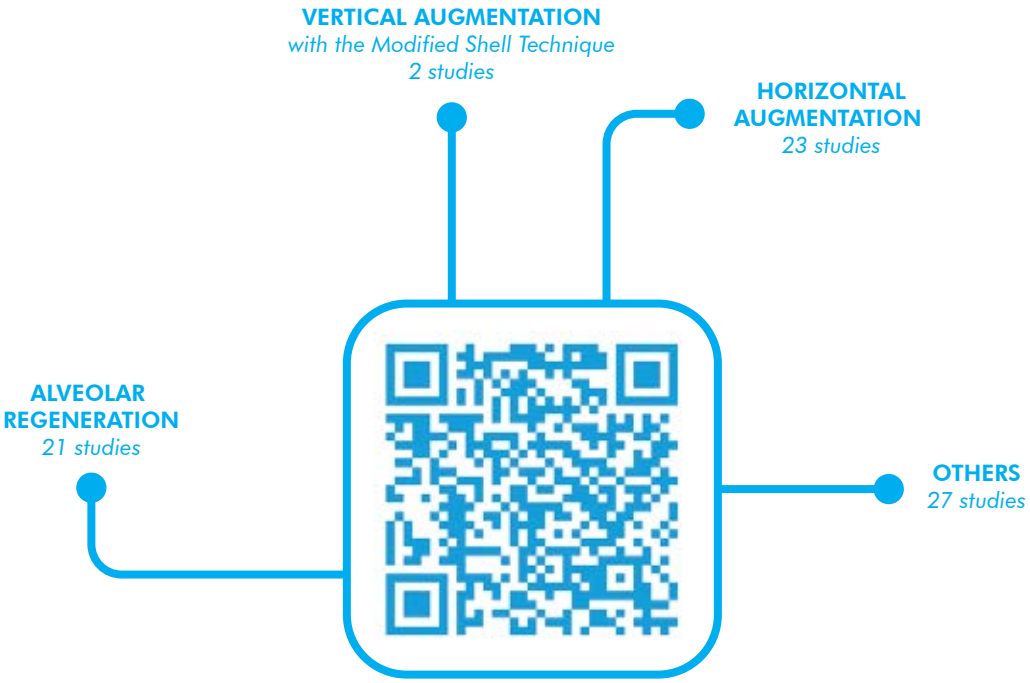
2. *Gen-Os®* is placed to fill the edentulous area for augmentation under a dry *Lamina® Curved*.

3. After six months following augmentation, an increase in the bone width on the buccal-lingual aspect and the bone normal quality is observed.

HORIZONTAL/ VERTICAL AUGMENTATION



Lamina®'s scientific evidence



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Journal of Clinical Medicine. 2023; 12(22):7013

SEM image of an ***Evolution*** membrane
Source: Politecnico di Torino, Italy

Evolution

The natural Evolution of collagen membranes

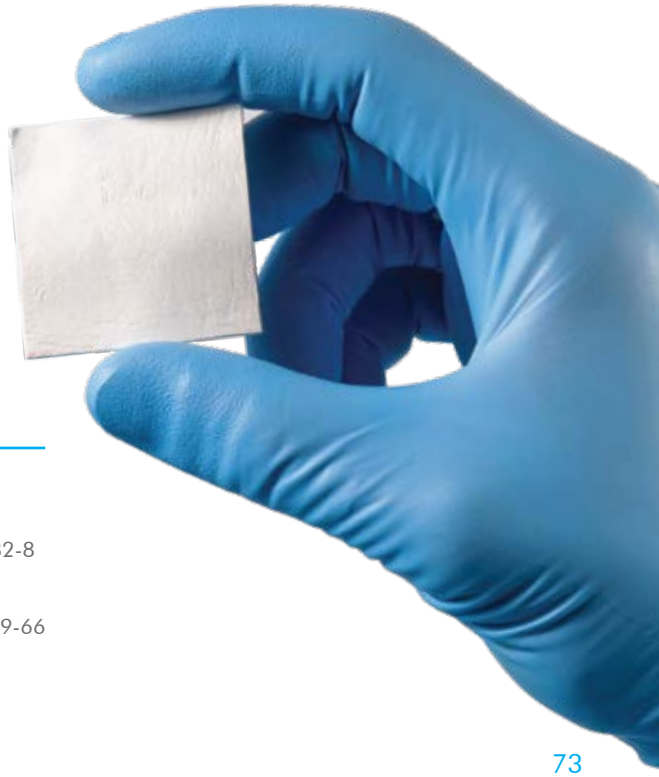
Why choose Evolution?

Graft protection against bacteria and food contamination is necessary to allow hard and soft tissue healing. Thanks to their high consistency, resistance to degradation[1] and stretchability, ***Evolution*** collagen membranes are valid solutions to maintain the bone graft stable and isolated thus reducing the risk of complications[2-7].

The structure made of dense collagen fibres[8] and the appropriate gradual degradation rate prevents the infection from bacteria and soft tissue ingrowth.

In addition, when exposed intentionally or unintentionally, ***Evolution*** collagen membranes allow second-intention soft tissue healing[3] and adequate new bone formation[2-7, 9,10].

More than 25 years of clinical and scientific evidence prove that ***Evolution*** collagen membranes can be used in post-extraction sockets to protect the graft[2,3], in lateral access sinus lift to protect both the antrostomy and the sinus membrane[4], to stabilise the graft around peri-implant lesions[5], periodontal defects[6], and vertical defects[7].



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Clinical cases & applications

TREATMENT OF A FRACTURED TOOTH

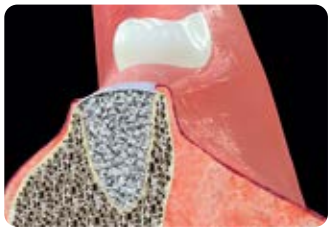
Sex: male - Age: 53 years old - Author: Prof. Antonio Barone, University of Pisa, Italy

1. The periapical x-ray shows a hopeless tooth.

2. The fresh extraction socket is grafted with *mp3*® and covered wtih an *Evolution* collagen membrane.

3. The x-ray at three-year follow-up shows an implant surrounded by appropriate amount of newly formed bone.

ALVEOLAR REGENERATION



THE "ALL-ON-4" PROTOCOL FOR TRANS-SINUS IMPLANTATION

Sex: female - Age: 62 years old - Author: Prof. Aleksei Reshetnikov, private practice, Russia

1. Panoramic radiograph of the bone tissue. The red circle shows the area with the most pronounced atrophy of the alveolar ridge of the upper jaw.

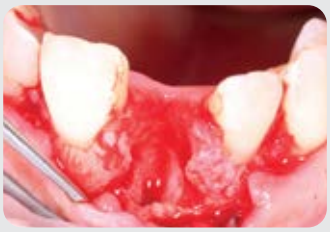
2. The oroantral anastomosis is isolated with an *Evolution* collagen membrane. The antrostomy is filled with *mp3*®.

3. Panoramic radiograph six months after implantation shows a permanent prosthesis installed on the upper jaw.

SINUS MEMBRANE PROTECTION

IMPLANT PLACEMENT IN ESTHETIC REGION AND RECONSTRUCTION OF THE BONE DEFECT

Sex: female - Age: 33 years old - Author: Dr. Matej Kuliš, private practice, Slovenia



1. After extraction and removal of the granulation tissue, a buccal bone defect is reported.

2. The *Evolution* collagen membrane is adapted to the defect anatomy to cover and stabilise the underlying graft.

3. The x-ray taken after second stage surgery reveals an appropriate amount of newly formed bone.

ALVEOLAR REGENERATION

DISCOVER MORE

ON OUR WEBSITE

REPLACEMENT OF A FRACTURED TOOTH

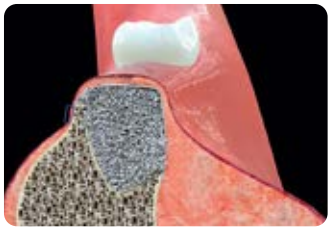
Sex: female - Age: 35 years old - Author: Dr. Guerino Paolantoni, private practice, Italy

1. The x-ray shows the upper left incisor with a horizontal fracture of the root.

2. An *Evolution* collagen membrane is stabilised with titanium pins to cover the graft.

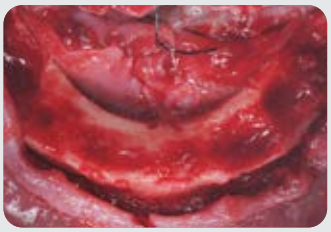
3. The x-ray shows an implant surrounded by healthy new bone.

ALVEOLAR REGENERATION



THE "ALL-ON-4" PROTOCOL

Sex: male - Age: 37 years old - Author: Prof. Aleksei Reshetnikov, private practice, Russia

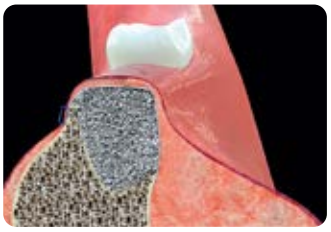


1. After teeth extraction, the lower jaw is ready for implant insertion.

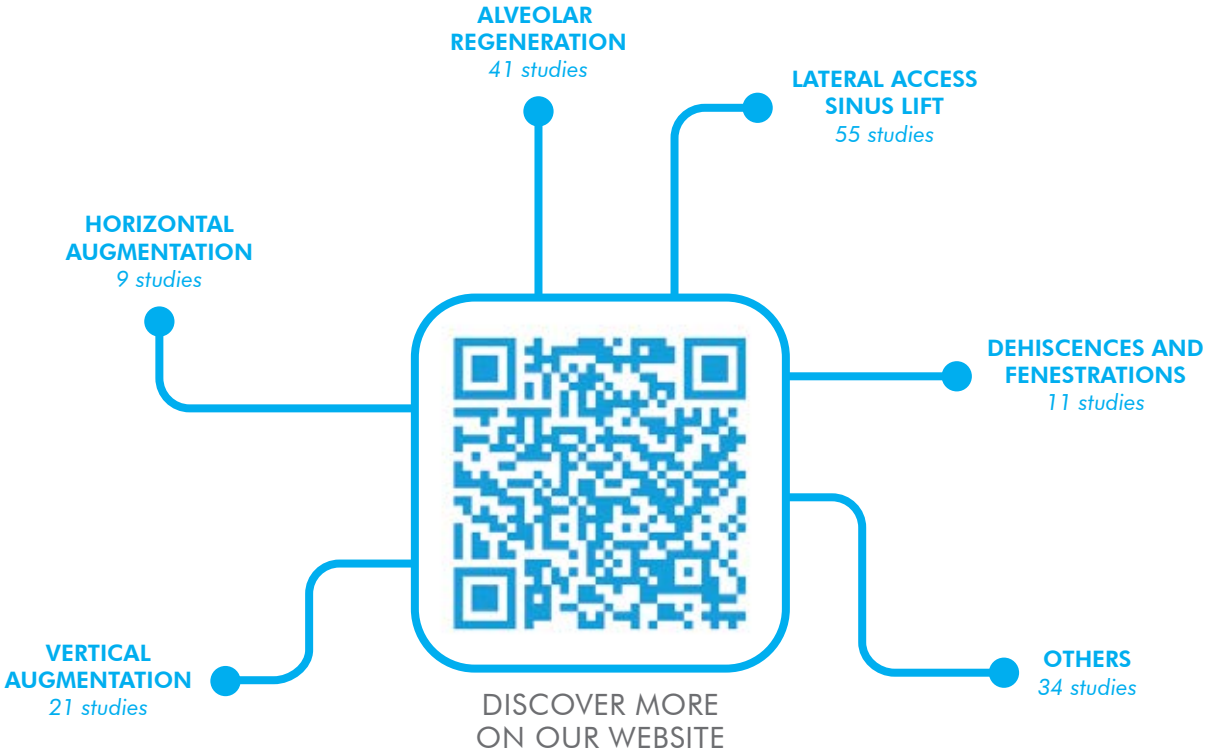
2. *mp3*® is packed around the installed implants and *Evolution* collagen membranes cover alveolar ridge defects.

3. Six months after the surgery, the soft tissue is healthy.

ALVEOLAR REGENERATION



Evolution's scientific evidence



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SEM image of a ***Derma*** membrane
Source: Politecnico di Torino, Italy

Derma

The versatile collagen membrane

Why choose Derma?

Connective Tissue Graft (CTG) is considered the gold standard for soft tissue regeneration; however, autologous soft tissue is available in limited quantities via palatal harvesting and causes post-operative discomfort to patients.

Derma is a valid alternative to CTG for soft tissue augmentation around teeth and implants and for the treatment of gingival recessions[1-4].

Natural dense collagen fibres make ***Derma*** a resistant membrane also for sealing the socket and stabilising the graft in alveolar regeneration procedures[4-6] where it can be left exposed without any risk of infection[4-6].

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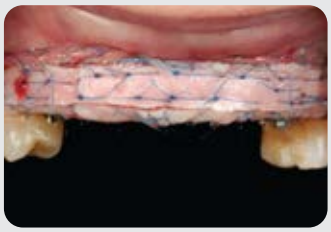
Clinical cases & applications

SOFT TISSUE REGENERATION IN THE ESTHETIC AREA

Sex: female - Age: 53 years old - Author: Dr. Iñaki Gamborena, private practice, Spain

1. The patient lost her natural smile.



2. The strip gingival autograft technique is selected in order to blend the gingival color with the rest of the soft tissues in conjunction with *Derma*.

3. After the treatment, the patient recovered a natural smile.

SOFT TISSUE AUGMENTATION

SEALING OF A LOWER MOLAR POST-EXTRACTION SOCKET

Sex: female - Age: 42 years old - Author: Dr. Domenico Patarino, private practice, Italy

1. The clinical image shows a post-extractive molar socket.

2. *Derma* is used to protect the underlying *Gen-Os*® bone graft.

3. *Derma* did not get infected and favoured soft tissue healing.

ALVEOLAR REGENERATION

THE MATRIX TISSUE GRAFT (MTG) TECHNIQUE

Sex: female - Age: 37 years old - Author: Dr. Alessandro Minniti, private practice, Italy

1. The intial situation shows a buccal and lingual hard and soft tissue atrophy.

2. *Derma* is inserted buccally to augment the soft tissue.

3. A sufficient tissue thickness is gained for a natural soft tissue emergence profile.

SOFT TISSUE AUGMENTATION

DISCOVER MORE

ON OUR WEBSITE

TREATMENT OF SEVERE GINGIVAL RECESSION

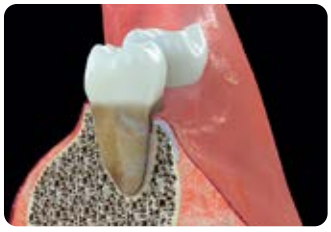
Sex: female - Age: 55 - Author: Prof. Rok Gašperšič, University of Lubijana, Slovenia

1. The patient shows a severe gingival recession.

2. *Derma* is sutured with mattress sutures.

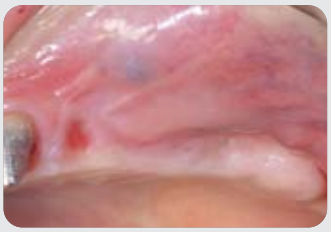
3. Two years after surgery, the patient shows a normal soft tissue profile.

SOFT TISSUE AUGMENTATION

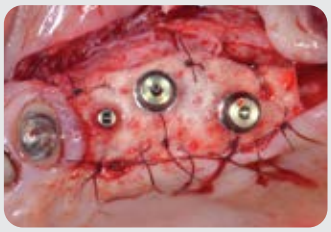


SINUS LIFT COMBINED WITH ALVEOLAR RECONSTRUCTION

Sex: female - Age: 67 - Author: Dr Ferdinando D'Avenia, private practice, Italy



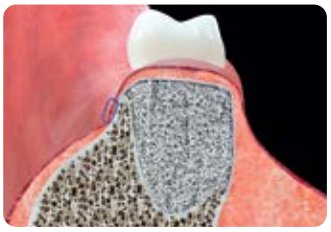
1. Clinical view before soft tissue management.



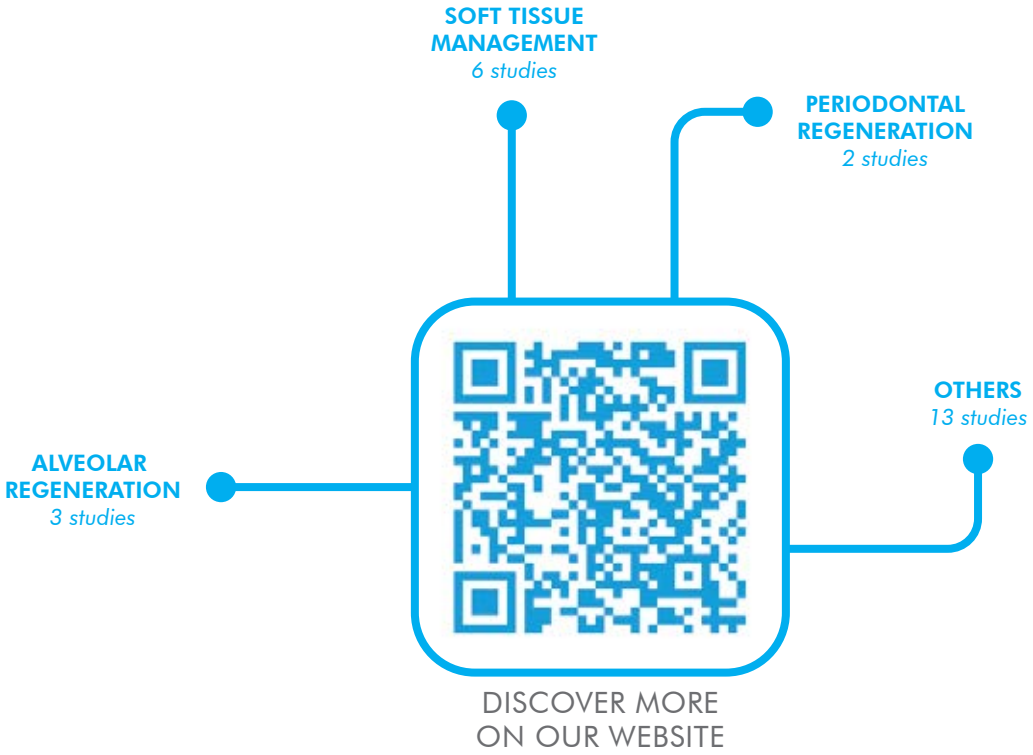
2. *Derma* graft is used for connective tissue protection.

3. Eight weeks healing, at the time of provisonal restoration application.

SOFT TISSUE AUGMENTATION



Derma's scientific evidence



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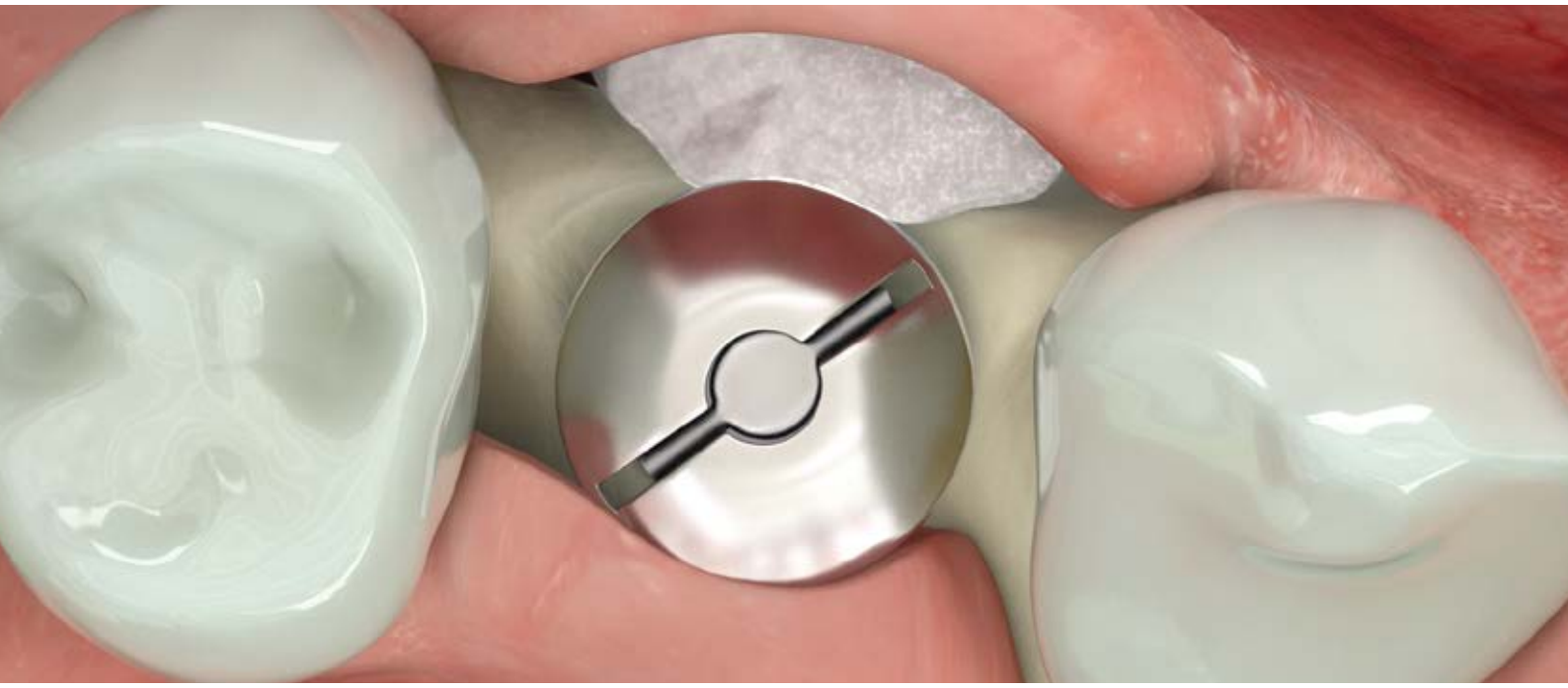
OsteoBiol® Derma
by Tecnoss

PORCINE DERMAL MATRIX
Natural xenogenic origin



Clinical evidence:

- *Horizontal soft tissue augmentation around implants*
- *As an alternative to connective tissue graft to improve the quality of keratinized tissues*
- *As prolonged protection of the underlying graft in socket regeneration procedures and in open healing situations*

Our history

1998 TECNOSS® FOUNDATION

2001 FIRST INTERNATIONAL DISTRIBUTOR

2005 FIRST PARTICIPATION AT IDS IN COLOGNE

2010 DISTRIBUTION IN 30 COUNTRIES

2016 100 PUBLICATIONS ON OSTEOBIOL BIOMATERIALS

2017 FIRST BBB ACADEMY SPONSORSHIP

2023 300 PUBLICATIONS ON OSTEOBIOL BIOMATERIALS

2025 DISTRIBUTION IN 80 COUNTRIES

Quality system

ALWAYS FROM THE PATIENT'S SIDE

Tecnoss®, the Manufacturer of OsteoBiol® biomaterials, meets strict regulations that guarantee the safety of the OsteoBiol® product line.

First and foremost, the OsteoBiol® product line received the CE Certification, which guarantees the respect of high standards of safety: the conformity to such regulations is annually checked by Notified Bodies. OsteoBiol® product line meets the high-quality standards of biocompatibility as defined by ISO 10993.

OsteoBiol® collagenic xenografts are also sterilized according to international standard procedures such as EN ISO 11137-1, EN ISO 11137-2, and EN 556-1.

Product safety is also guaranteed by Tecnoss® risk management system (ISO 14971) and the quality management system is certified under EN ISO 13485.

Finally, more than 1 million surgeries, 350 scientific papers, and 25 years of clinical experience demonstrated OsteoBiol® product line is safe and trustworthy.

A CHOICE THAT MATTERS

OsteoBiol® heterologous biomaterials are porcine or equine xenografts. For this reason, they are free from BSE (Bovine Spongiform Encephalopathy) and TSE (Transmittable Spongiform Encephalopathy) diseases. They are classified as "tissues with no detectable infectivity" (EN ISO 22442-1, and EN ISO 22442-3).

Raw materials are sourced from certified suppliers, where animals are checked by the local Veterinary Service. Furthermore, the OsteoBiol® product line is free from *Taenia solium* eggs/larvae since Tecnoss® processes only bone and mesenchymal tissue, whereas only striated muscles from the heart, tongue, and intercostal muscles are reservoirs of the aforementioned parasites.

Our official distribution

WE ARE WORLDWIDE

Find your dealer

Our international courses

Each year we plan regeneration courses with top international speakers in exclusive locations.

Join the OsteoBiol® community to enhance your knowledge on our biomaterials and to experience their application in hands-on sessions.

JOIN OUR COURSES

Bone, Biomaterials & Beyond

Academy

Bone, Biomaterials & Beyond Academy is an international non-profit scientific association.

The Academy goal is to favor and disseminate the study of collagenic "Dual-Phase" bone substitutes of porcine or equine origin, and to investigate their clinical efficacy and predictability in oral surgery.

These goals are pursued by sustaining scientific research via professional courses, symposia and congresses, by organising contests, prizes and promoting scientific publications and any other initiative contributing to scientific progress.

CONGRESSES

CONTESTS

WEBINARS

Scan for more information about BBB Academy activities

Bone Substitutes

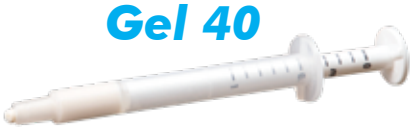
GTO®

Codes	Size	Origin	Type	Granulometry	Mean observed re-entry time
MU0005S	0,5 cc	Porcine	Bone Mix+TSV Gel	0,6-1 mm	About 5 months
MU0020S	2 cc	Porcine	Bone Mix+TSV Gel Wide tip syringe	0,6-1 mm	About 5 months
MU0005E	0,5 cc	Equine	Bone Mix+TSV Gel	0,6-1 mm	About 5 months
MU0020E	2 cc	Equine	Bone Mix+TSV Gel Wide tip syringe	0,6-1 mm	About 5 months

mp3®

Codes	Size	Origin	Type	Granulometry	Mean observed re-entry time
A3095FS	0,5 cc	Porcine	Bone Mix	0,6-1 mm	About 5 months
A3005FS	1 cc	Porcine	Bone Mix	0,6-1 mm	About 5 months
A3010FS	2 cc	Porcine	Bone Mix Wide-tip syringe	0,6-1 mm	About 5 months
A3210FS	2 cc	Porcine	Bone Mix Wide-tip syringe	1-2 mm	About 5 months
A3095FE	0,5 cc	Equine	Bone Mix	0,6-1 mm	About 5 months
A3005FE	1 cc	Equine	Bone Mix	0,6-1 mm	About 5 months
A3010FE	2 cc	Equine	Bone Mix Wide-tip syringe	0,6-1 mm	About 5 months
A3210FE	2 cc	Equine	Bone Mix Wide-tip syringe	1-2 mm	About 5 months

Gel 40



Codes	Size	Origin	Type	Granulometry	Mean observed re-entry time
05GEL40S	0,5 cc	Porcine	Bone Gel	≤ 0,300 mm	About 4 months

Putty

Codes	Size	Origin	Type	Granulometry	Mean observed re-entry time
HPT52S	0,25 cc	Porcine	Bone Paste	≤ 0,300 mm	About 4 months
HPT09S	0,5 cc	Porcine	Bone Paste	≤ 0,300 mm	About 4 months
HPT61S	1 cc	Porcine	Bone Paste Wide-tip syringe	≤ 0,300 mm	About 4 months
HPT52E	0,25 cc	Equine	Bone Paste	≤ 0,300 mm	About 4 months
HPT09E	0,5 cc	Equine	Bone Paste	≤ 0,300 mm	About 4 months
HPT61E	1 cc	Equine	Bone Paste Wide-tip syringe	≤ 0,300 mm	About 4 months

Gen-Os®

Codes	Size	Origin	Type	Granulometry	Mean observed re-entry time
M1052FS	0,25 g	Porcine	Dried Granules	0,25-1 mm	About 5 months
M1005FS	0,5 g	Porcine	Dried Granules	0,25-1 mm	About 5 months
M1010FS	1 g	Porcine	Dried Granules	0,25-1 mm	About 5 months
M1020FS	2 g	Porcine	Dried Granules	0,25-1 mm	About 5 months
M0210FS	1 g	Porcine	Dried Granules	1-2 mm	About 5 months
M0220FS	2 g	Porcine	Dried Granules	1-2 mm	About 5 months
M1052FE	0,25 g	Equine	Dried Granules	0,25-1 mm	About 5 months
M1005FE	0,5 g	Equine	Dried Granules	0,25-1 mm	About 5 months
M1010FE	1 g	Equine	Dried Granules	0,25-1 mm	About 5 months
M1020FE	2 g	Equine	Dried Granules	0,25-1 mm	About 5 months

Apatos®

Codes	Size	Origin	Type	Granulometry	Mean observed re-entry time
A1005FS	0,5 g	Porcine	Dried Granules Mix	0,6-1 mm	About 5 months
A1010FS	1 g	Porcine	Dried Granules Mix	0,6-1 mm	About 5 months
A1020FS	2 g	Porcine	Dried Granules Mix	0,6-1 mm	About 5 months
A0210FS	1 g	Porcine	Dried Granules Mix	1-2 mm	About 5 months
AC1005FS	0,5 g	Porcine	Dried Granules Cortical	0,6-1 mm	About 5 months
AC1010FS	1 g	Porcine	Dried Granules Cortical	0,6-1 mm	About 5 months
A1005FE	0,5 g	Equine	Dried Granules Mix	0,6-1 mm	About 5 months
A1010FE	1 g	Equine	Dried Granules Mix	0,6-1 mm	About 5 months
A1020FE	2 g	Equine	Dried Granules Mix	0,6-1 mm	About 5 months
A0210FE	1 g	Equine	Dried Granules Mix	1-2 mm	About 5 months

Bone Substitutes

TSV Gel

Codes	Size	Origin	Type	Mean observed re-entry time
TSV005S	0,5 cc	Porcine	Bone Gel	About 5 months

Sp-Block

Codes	Size	Origin	Type	Mean observed re-entry time
BN0E	10x10x10 mm	Equine	Dried Block	About 8 months
BN1E	10x10x20 mm	Equine	Dried Block	About 8 months
BN2E	10x20x20 mm	Equine	Dried Block	About 8 months
BN8E	35x10x5 mm	Equine	Dried Block	About 8 months

Lamina®

Codes	Size	Origin	Type	Thickness	Mean observed re-entry time
LS10HS	35x35 mm (Curved)	Porcine	Dried/Soft	1 mm	About 6 months
LS23FS	25x35 mm (Oval)	Porcine	Dried/Soft	0,4-0,6 mm	About 5 months
LS25FS	25x25 mm	Porcine	Dried/Soft	0,4-0,6 mm	About 5 months
LS24LS	20x40 mm	Porcine	Dried/Soft	1 mm	About 6 months
LS03SS	30x30 mm	Porcine	Dried/Soft	2-4 mm	About 8 months
LS15LS	35x15 mm	Porcine	Dried/Hard	0,6-0,8 mm	About 7 months
LS35LS	35x35 mm	Porcine	Dried/Hard	1 mm	About 6 months
LS10HE	35x35 mm (Curved)	Equine	Dried/Soft	1 mm	About 6 months
LS25FE	25x25 mm	Equine	Dried/Soft	0,4-0,6 mm	About 5 months

Membranes

Evolution

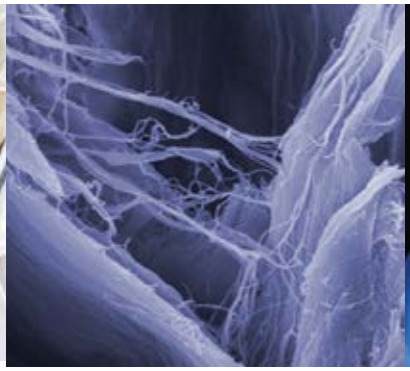
Codes	Size	Origin	Type		Mean observed re-entry time
EM03XS	30x30 mm	Porcine	Dried	X-Fine	About 2 months
EM02HS	20x20 mm	Porcine	Dried	Standard	About 4/6 months
EM03HS	30x30 mm	Porcine	Dried	Standard	About 4/6 months
EV02LLE	20x20 mm	Equine	Dried	Fine	About 3/4 months
EV03LLE	30x30 mm	Equine	Dried	Fine	About 3/4 months
EV02HHE	20x20 mm	Equine	Dried	Standard	About 4/6 months
EV03HHE	30x30 mm	Equine	Dried	Standard	About 4/6 months
EV04LLE	40x40 mm	Equine	Dried	Fine	About 3/4 months
EV06LLE	80x60 mm	Equine	Dried	Fine	About 3/4 months

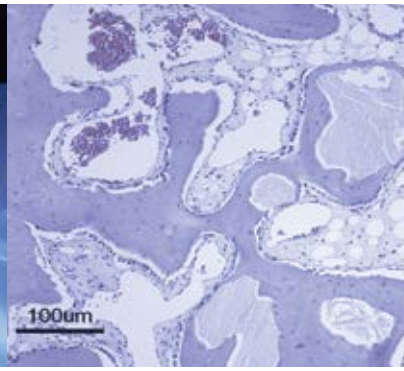
Derma

Codes	Size	Origin	Type	Thickness	Mean observed re-entry time
ED02LS	20x20 mm	Porcine	Dried	0,4-0,6 mm	About 1 month
ED75SS	7x5 mm	Porcine	Dried	2-3 mm	About 5 months
ED15SS	15x5 mm	Porcine	Dried	2-3 mm	About 5 months
ED03SS	30x30 mm	Porcine	Dried	2-3 mm	About 5 months
ED05FS	50x50 mm	Porcine	Dried	0,8-1 mm	About 3 months
ED21FS	12x8 mm (Oval)	Porcine	Dried	0,8-1 mm	About 3 months
ED25FS	25x25 mm	Porcine	Dried	0,8-1 mm	About 3 months
ED05SS	50x50 mm	Porcine	Dried	2-3 mm	About 5 months

OsteoBiol®
by Tecnoss

Made in Italy



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