AlphaBio TEC
Simplantology

Alpha-Bio's Graft
Bioactive Bone - Bovine

A Growing Success

AlphaBio'S GRAFT

Alpha-Bio's Graft Bioactive Bone

Is an advanced Xenograft based on Bovine bone.
This advanced line had been specially developed for bone regeneration procedures in reconstructive surgery

The combination of bovine bone matrix, bioactive resorbable polymers and cell nutrients, provides the bioactivity to the Alpha Bio'S Graft Bone.
This composition promotes the growth of natural patient cells into the Bioactive Bone, which results in perfect osteogenesis.

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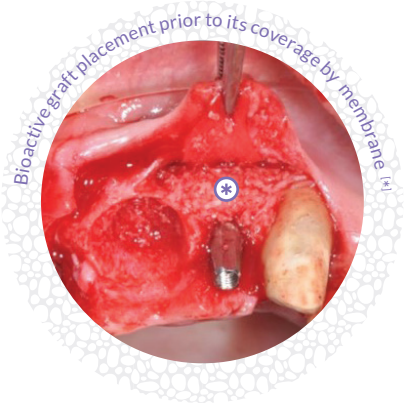
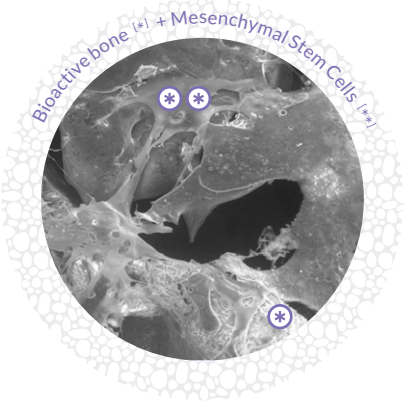
Biodegradable Polymers give Bioactive Bone

- High volumetric stability (>95%); the polymers protect the bone from early resorption



Cell Nutrients enriching Bioactive Bone

- Promote blood cell adhesion and colonization
- High hydrophilicity enhances the molecular cascade of signals that promotes the osteogenic process

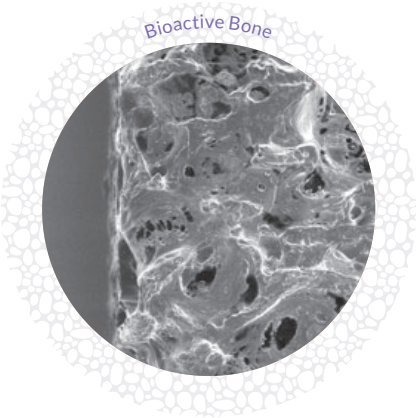


Clinical Indications:

- Sinus lift procedures
- Peridontal intrabony defects
- Peri-implant bony defects
- Socket preservation
- Vertical and horizontal bone augmentations

Clinical Benefits

The microstructure of Bioactive Bone composite matrix strongly resembles the human bone:



SEM x 30

SEM x 30

- **High Hydrophilicity**

Due to its micro-composition, Bioactive Bone quickly reaches an average of 38% W/W blood swelling (0.38gr of blood per 1gr of Bioactive Bone), enabling robust osteoregeneration.

- **High Tissue Integration**

Bioactive Bone microstructure and composition favors cell colonization. Electron Microscopy analysis of in-vitro cell colonization tests showed the presence of wide, well-structured cell formations inside Bioactive Bone.

Appearance of native bone following the use of Bioactive Bone

Regenerative results show smooth bone surface when using **enriched** Xenograft, as compared to rough surface when using standard Xenograft.

Bioactive Bone Handling

- Perfect Xenograft handling, a result of additional properties enabled by the polymer.
- Bioactive Bone's sterile vial may be used for immersing the bovine bone with the hydration (it is recommended to use the patient blood).
- Direct, easy transfer of the Bioactive Bone, in bulk, without particle loss.

Ordering Information

Granules Size	0.25 - 1.0 mm			
Weight	0.25 g	0.5g	1.0 g	2.0 g
Ref. No.	3274	3275	3276	3277
Code	BAB – S0.25	BAB – S0.5	BAB – S1.0	BAB – S2.0

Granules Size	1.0 - 2.0 mm		
Weight	0.5g	1.0g	2.0g
Ref. No.	3279	3280	3281
Code	BAB –L0.5	BAB – L1.0	BAB – L2.0

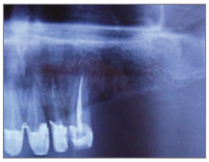
Alpha-Bio`s Graft Bioactive Bone Performance - Treatment Concept and Indications:

1 Open sinus floor augmentation* using Bioactive Bone graft

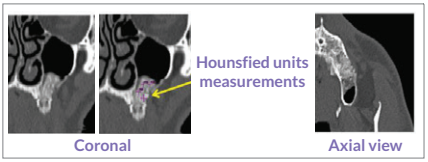
By courtesy of: Dr. Giorgio Carusi and Dr. Dragos Epistatus (Romania)

* Open sinus, lateral window technique

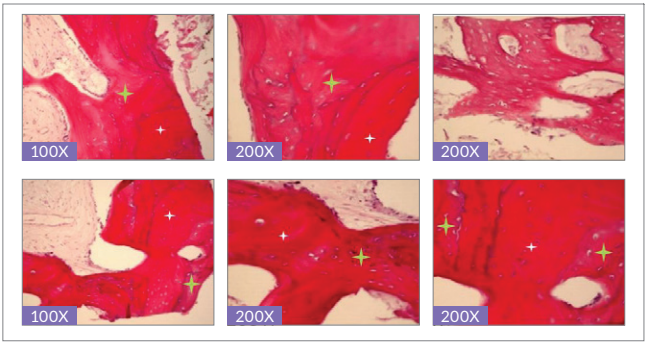
1 Pre-Op peri-apical X-ray of site planned for opened sinus floor augmentation



2 2-month post-operative X-ray



3 4-month CT coronal and axial scanning of augmented sinus floor; average Bone density 500 Hounsfield units, adequate for implant placement



4 4-month histological slides harvested from augmented site; graft particle - white asterisk, new Bone - green asterisk

5 1-year following sinus floor augmentation and 8 months following implant placement

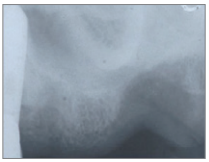
6 2-years follow-up after completion of prosthetic work

7 3-years follow-up after completion of prosthetic work

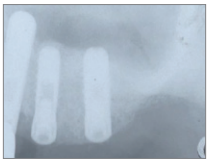
The following trans-crestal closed sinus case studies were preformed by Summers' Technique.

2 Closed Sinus (trans-crestal) floor augmentation using Bioactive Bone graft

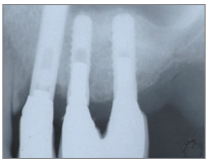
By courtesy of: Dr. Giorgio Carusi (Italy)



1 X-Ray appearance of a posterior maxillary zone planned for closed sinus augmentation with simultaneous implant placement



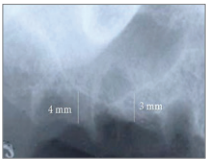
2 5 months following closed sinus augmentation using Bioactive Bone graft; compare bone height to 5-year follow-up results



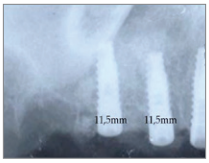
3 5 years following implant placement; regenerated augmented bone density looks good on X-ray, without losing bone height, when compared to the 5-month post-op period

3 Closed Sinus (trans-crestal) floor augmentation - 5-years follow-up

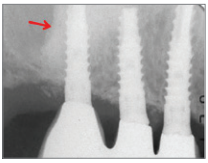
By courtesy of: Dr. Giorgio Carusi (Italy)



1 Pre-op measurements from alveolar crest to the sinus floor



2 Immediate post-op closed sinus floor augmentation using Bioactive Bone graft

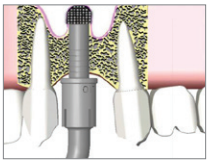


3 5-year follow-up after augmentation procedure; improvement in radiological appearance of the grafted area (increase in the area's radio-opacity)

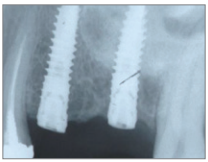
4 Closed Sinus (trans-crestal) floor augmentation using Bioactive Bone graft

By courtesy of: Dr. Giorgio Carusi (Italy)

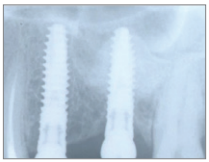
1 Site after closed sinus floor augmentation prior to implant placement (arrows)



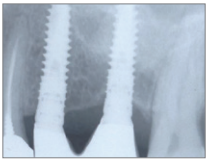
2 Description of trans-crestal sinus floor augmentation technique



3 X-ray taken immediately following dental implant placement, shortly after floor augmentation



4 5 months following grafting procedure and simultaneous implant placement

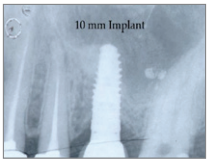


5 5-year follow-up; note that height of regenerated bone was not reduced, compared to 3-month post-op follow-up (left X-ray)

5 Closed Sinus (trans-crestal) floor augmentation using Bioactive Bone graft

By courtesy of: Dr. Giorgio Carusi (Italy)

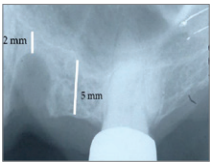
1 Closed sinus floor augmentation pre-op measurements; note the angle created by the sinus floor towards the apex of tooth #25



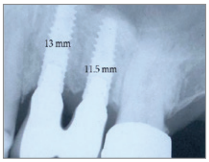
2 Follow-up after 5 years; mesial regenerative results (compared to distal aspect) is well explained by the sharp angle created by the anatomy of the sinus floor

6 Closed Sinus (trans-crestal) floor augmentation using Bioactive Bone graft

By courtesy of: Dr. Giorgio Carusi (Italy)



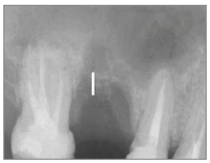
1 Pre-op measurements immediately following extraction of tooth #25; note that measurements were performed from apical part of the socket to the sinus floor (2 mm)



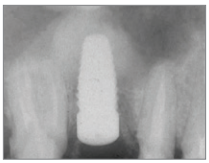
2 5-year follow-up after completion of prosthetic work; grafted area shows excellent density

7 Closed Sinus (trans-crestal) floor augmentation using Bioactive Bone graft

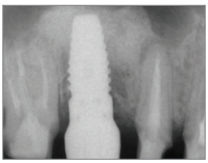
By courtesy of: Dr. Giorgio Carusi (Italy)



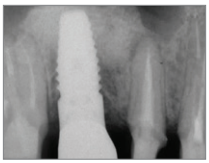
1. Pre-op crestal height measurement - 4mm



2. Immediate post-op X-ray; trans crestal sinus floor augmentation enabling placement of 12 mm implant



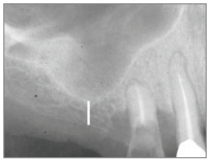
3. 6 months following surgery; when compared to the immediate post-op X-ray, density in the augmented area is increasing over time



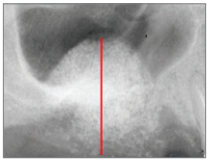
4. 3 years following surgery; when compared to the 6-month post-op X-ray, density in the augmented area is increasing over time

8 Closed Sinus (trans-crestal) floor augmentation using Bioactive Bone graft

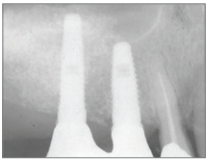
By courtesy of: Dr. Giorgio Carusi (Italy)



1. Pre-op measurement shows 1.8 mm between crest and the sinus floor



2. Check up after surgery following surgical procedure of transcrestal sinus floor augmentation using Bioactive Bone graft

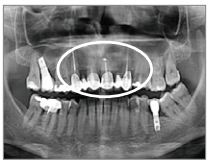


3. 1 year following finalization of prosthetic work

9 Using Bioactive Bone in the aesthetic zone

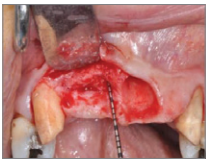
By courtesy of: Dr. Federico Mandelli (Italy)

1 Fold to fold photograph demonstrating area of #13-23 to be treated surgically and prosthetically



2 Panoramic X-ray of the area planned for treatment

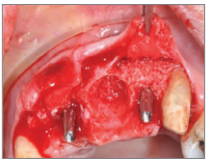
Treatment Plan:
Extraction of #11 and #21 followed by immediate augmentation and dental implantation (position of planned implants - #11 and #22)



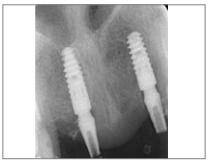
3 Surgical field following teeth extraction

4 Temporary bridge in place over surgical area; implant in position of #22 is exposed from buccal aspect; resorption of buccal plate in area of #12; #11 is visible and requires horizontal grafting to correct aesthetic results

5 Bioactive Bone graft is covering resorption in area #11 and #12 prior to suturing



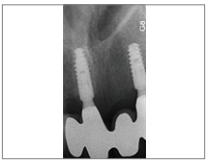
6 Implant in position #22, previously exposed after its insertion, is grafted in order to allow regeneration of the buccal plate and future aesthetic solution



7 X-ray 10 days following surgery; healing was uneventful

8 Clinical situation 4 months following surgical procedure prior to final prosthetic restoration insertion

9 Final restoration - 6 month of follow-up



10 On left - X-ray taken 11 month later

AlphaBio TEC
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A Growing Success

AlphaBio's GRAFT

Alpha-Bio's Graft Bioactive Bone is manufactured by Industrie Biomediche Insubri SA Via Cantonale, 67 Mezzovico-Vira CH-6805 Switzerland

swiss made

Alpha-Bio's Graft Bioactive Bone is CE-marked in accordance with Council Directive 93/42/EEC.
Product availability may vary between countries

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Alpha-Bio Tec. Ltd
www,alpha-bio.net

Alpha-Bio Tec. complies with EN ISO 13485:2012 and the Canadian Medical Devices Conformity Assessment System (CMDCAS).

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