maxgraft®
maxgraft® cortico
maxgraft® bonebuilder
maxgraft® bonering

PROCESSED HUMAN ALLOGRAFT
INTRODUCTION

Various bone graft materials are available to replace and regenerate bone matrix lost by tooth extraction, cystectomy or bone atrophy following loss of teeth or inflammatory processes.

Of all grafting options autologous bone is considered the „gold standard“, because of its biological activity due to vital cells and growth factors.

Yet, the autologous bone from intra-oral donor sites is of restricted quantities and availability, and the bone tissue obtained from the iliac crest is described to be subject to fast resorption¹. Moreover, the harvesting of autologous bone often requires a second surgical site associated with an additional bone defect and potential donor site morbidity². Thus, application of processed allogenic bone tissue demonstrates a reliable and predictable alternative.

The immunological compatibility of processed allogenic bone is not different from autologous tissue³,⁴. In patients who received allogenic bone grafts for ridge augmentation, no circulating antibodies could be detected in blood samples⁵.

Moreover, several histological⁶,⁷ and morphological studies⁸ have well documented that there was no difference in the final stage of incorporation and new bone formation between allograft and autologous graft.

Classification

**Autologous:**
- Patient’s own bone, mostly harvested intra-orally or from the iliac crest
- Intrinsic biological activity

**Allogenic:**
- Bone from human donors (post mortem donors or femoral heads of living donors)
- Natural bone composition and structure

**Xenogenic:**
- From other organisms, mainly bovine origin
- Long-term volume stability

**Alloplastic:**
- Synthetically produced, preferably calcium phosphate ceramics
- No risk of disease transmission

Cells+Tissuebank Austria

maxgraft® - the allogeneic bone grafting materials from botiss, all originate from the Cells+Tissuebank Austria (C+TBA). C+TBA is a non-profit organization for the medical supply of allografts to surgeons under pharmaceutical conditions. C+TBA serves as a platform for the definition of safety standards and assurance of compliance with defined product qualities. As the largest tissue bank in Austria, C+TBA specializes in human bone tissue.

The quality standards for donor selection, procurement, processing, quality control, storage and distribution of human tissue and cells are mandatory committed in the European Directives 2004/23/EC, 2006/17/EC and 2006/86/EC. In addition, at the national level, the legal requirements are defined by the Austrian Tissue Safety Act (GSG).

To meet and comply with both European and national requirements, C+TBA has implemented a quality assurance system at pharmaceutical level, which is regularly audited by the competent national authority, the Austrian Federal Office for Safety in Health Care (BASG / AGES).

The C+TBA is certified as a tissue bank according to §19 and §22 of the Austrian Tissue Safety Act.

maxgraft® products basically originate from living donors by explantation of femoral heads (hip replacement surgery). Only cortico-cancellous blocks and cortical struts originate from post mortem tissue donors.

The procurement, standardized by a predefined protocol, is carried out by certified procurement centers according to the European Directives. Tissue donations will only be carried out after the donor’s written consent. In addition, the health status of the potential donor is assessed in the context of a risk analysis and the donor is then selected on the basis of strict exclusion criteria. For all donors the highest ethical and safety-related requirements are met.

### SEROLOGICAL TESTING

<table>
<thead>
<tr>
<th>Virus</th>
<th>Test</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hepatitis B Virus (HBV)</td>
<td>HBsAg, HBcAb, NAT</td>
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<tr>
<td>Hepatitis C Virus (HCV)</td>
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</tr>
<tr>
<td>Human Immunodeficiency Virus</td>
<td>Ab, NAT</td>
<td>negative</td>
</tr>
<tr>
<td>Human T-Lymphotropic virus</td>
<td>Ab, NAT</td>
<td>negative</td>
</tr>
<tr>
<td>Treponema pallidum (Lues)</td>
<td>CMA, TP Ab</td>
<td>negative</td>
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</tbody>
</table>

After donor acceptance a series of serological testing is performed. In addition to antibody screening (Ab), nucleic acid tests (NAT) are performed. By using this method infections can be identified before antibodies are detected in the blood.

Blood samples are taken simultaneously to tissue explantation during total hip replacement surgery or within 24h post mortem.


Cells+Tissuebank Austria
Thanks to its natural bone composition consisting of mineralized human collagen, maxgraft® shows a high biological regeneration capability in combination with natural remodelling. Therefore maxgraft® is an excellent alternative to autologous bone, meaning that there is no need for an intraoral surgical donor site, which reduces morbidity for the patient\textsuperscript{10,11,12}.

**MINERALIZED HUMAN COLLAGEN**

The purification process retains the natural collagen matrix and biomechanical properties of the bone tissue. The natural collagen (~30%) of the organic phase provides the flexibility of the allogenic material; the mineral phase (~70%, mostly hydroxyapatite) provides the stability. The microscopic pores within the material ensure rapid rehydration of the grafting material\textsuperscript{13, 14}.

**SAFETY AND QUALITY**

After thorough donor anamnesis, maximum safety is assured via a series of strict serological testing combined with the C-TBA’s Allotec\textsuperscript{®} purification procedure. The final sterilization by gamma irradiation guarantees a sterility assurance level (SAL) of 10\textsuperscript{-6} while ensuring structural and functional integrity of the product and its packaging within a shelf-life of 5 years at 5-30°C.

**THE ALLOTEC\textsuperscript{®} PROCESS**

**maxgraft\textsuperscript{®} – Manufacturing process**

Gentle purification procedure (only volatile reagents) preserves the material’s structure\textsuperscript{13,14}

01. After crude removal of surrounding soft tissue, fat and cartilage, the donor tissue is brought into its final shape.

02. The defatting of the donor tissue with ultrasonic bath allows moderate penetration of solvents during subsequent processing.

03. An oxidative treatment further denatures persisting soluble proteins, thereby eliminating potential antigenicity.

04. Freeze-drying preserves the natural structure of the tissue and maintains a residual moisture of <10%, allowing quick rehydration and easy handling.

05. Double packing and final sterilization by gamma-irradiation guarantees a 5 years shelf-life at 5-30°C.

06. A treatment with alternating durations of diethyl ether and ethanol leaches out cellular components and denatures non-collagenic proteins, thereby inactivating potential viruses.

maxgraft®

INDICATIONS
Implantology, Periodontology and Oral and CMF Surgery
- Regeneration of periodontal osseous defects
- Regeneration after cyst and root tip resections
- Regeneration of extraction sockets
- Regeneration of missing bone tissue around dental implants
- Regeneration of gaps around block grafts
- Sinus augmentation
- Horizontal augmentation of alveolar ridges
- Three-dimensional (horizontal and/or vertical) augmentation of alveolar ridges

PROPERTIES
- Bone from human donors (living donors: femoral heads, post mortem donors: diaphysis)
- Natural bone composition - mineralized human collagen
- High biological regeneration capability and natural remodelling
- 5 years shelf-life at 5-30°C

**CLINICAL APPLICATION OF MAXGRAFT®**

**CLINICAL CASE BY**
Dr. Algirdas Puišys, Vilnius, Lithuania

**BUCCAL AUGMENTATION WITH MAXGRAFT® GRANULES**
**AFTER IMMEDIATE IMPLANT PLACEMENT**

Initial situation, 36-year-old lady

Atraumatic extraction

Rehydrated Maxgraft®

Soft tissue thickening with Mucoderm®

Filing the gap with Maxgraft®

Soft tissue thickening with Mucoderm®

Soft tissue thickening with Mucoderm®

Soft tissue thickening with Mucoderm®

Clinical situation in the maxilla before extraction

Situation after tooth extraction and mobilization of mucosal flap

Mobilization and pre-fixation of the surrounding soft tissue

Insertion of four implants

Placement of abutments

Positioning of prosthesis

Closure of mucosal flap

After immediate loading protocol: prosthesis will guide soft tissue during healing process

3 years after prosthetic delivery

After 3 months

After surgery

After 1 year

3 years after

899x365

439x526

899x365

629x365

629x365

629x365
**CLINICAL CASE BY**
Dr. Ross Cutts, Cirencester, UK

**BLOCK AUGMENTATION WITH MAXGRAFT® IN THE MAXILLA**

- Clinical preoperative situation
- Horizontal bone defect
- Fixation of the maxgraft® block and contouring with cerabone®
- Covering with Jason® membrane
- PRGF matrices for the promotion of wound healing
- Tension-free wound closure
- Two weeks post operative: complication-free wound healing
- Implantation by Straumann BLT implant 3.3 mm
- Application of enamel matrix derivative
- Eight weeks post operative: good soft tissue situation
- Screw-retained crown with customized CAD/CAM abutment
- Fit of final restoration

**CLINICAL CASE BY**
Dr. Hassan Maghaireh, Leeds, UK

**BLOCK GRAFTING IN THE AESTHETIC ZONE WITH A UNI-CORTICAL MAXGRAFT® BLOCK**

- Full thickness flap and degranulation
- Shaping and preparing the uni-cortical maxgraft® block
- Stabilisation of the bone block with two 10 mm fixation screws placed oblique
- Layer of maxgraft® cancellous particles used to fill any gaps and covering with Jason® membrane
- Flap closure using 5/0 monofilaments Prolene sutures
- After six months healing - healthy soft tissue contour, satisfactory convexity
- Post op CBCT shows sufficient augmentation
- Prosthetic driven implant placement Straumann Roxolid BLT
- GBR at re-entry - added cerabone® small particles to increase the convexity. Jason® membrane stabilised with titanium pins and suwred palatally
- Final implant impression with Straumann RC customised impression pick up with an open tray for final screw retained implant crown on UL1 and Porcelain veneer on UR1
- Final fit of screw retained implant crown with CAD/CAM Ti abutment on UL1 and Porcelain veneer on UR1. Lab work: Guglielmo Parziale - Napoli - Italy
- 5 years clinical review - stable outcome
- 5 year post op CBCT - Axial view at the coronal 2 mm level
- 5 year post op CBCT - Coronal view showing implant
maxgraft® cortico
SHELL TECHNIQUE WITH ALLOGENIC BONE PLATES

maxgraft® cortico is a prefabricated plate made of processed allogenic bone. Similarly to the autogenous bone, it can be used for the shell technique.

maxgraft® cortico was developed to avoid the donor-site morbidity and to prevent the time-consuming harvesting and splitting of autologous cortico-cancellous bone plates.

Preparation of the augmentation area

The proper size of the plate is estimated after the elevation of the mucosal flap or preoperatively using a digital planning software. Rehydration is recommended (10 min in saline solution). Using a diamond disc, the plate is then cut extraorally.

Fixation and adaption

To create a fixed compartment, maxgraft® cortico must be positioned immobile in the adequate distance but still in contact with the local bone. Based on the ideal implant position, the strut should be positioned with at least a 1 mm distance to the implant surface when placed laterally. To prevent perforations of the soft tissue, sharp edges need to be removed, e.g. by using a diamond ball.

INDICATIONS:
Implantology, Oral and CMF Surgery
- Vertical augmentation
- Horizontal augmentation
- Complex three-dimensional augmentations
- Single tooth gaps
- Fenestration defects

Filling and wound closure

The space between local bone and cortical plate can be filled with a variety of different particulated bone grafting materials, autologous or allogenic granules are recommended. Then, the augmentation area needs to be covered with a barrier membrane (e.g. Jason®, collprotect® membrane) and a tension-free and saliva-proof closure must be applied.

ADVANTAGES
- Significant reduction of operation time
- No donor-site morbidity

PROPERTIES
- Standardized size
- 5 years shelf life at 5-30°C

Product Specifications
maxgraft® cortico

<table>
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<th>Dimension</th>
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<td>31253</td>
<td>cortical strut, 25 x 10 x 1 mm*</td>
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* post mortem donors
cortico trimmer

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<tbody>
<tr>
<td>34033</td>
<td>cortico trimmer</td>
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</table>

Six months after augmentation, stable integration of the plate.

More details on the surgical procedure on: BOTISS-DENTAL.COM
CLINICAL APPLICATION OF MAXGRAFT® CORTICO

CLINICAL CASE BY
Dr. Robert Würdinger, Marburg, Germany

COMPLEX THREE-DIMENSIONAL AUGMENTATION

- Preoperative CBCT-scan; vestibular view
- Defect fill and contouring using autologous and allogenic (maxgraft®) particles. Covering of the augmentation site with Jason® membrane.
- Implantation of two implants in accordance to the attachment level of the neighboring teeth.
- Situation after re-entry via stab incision with soft tissue displacement.
- Contouring with particles also outside of maxgraft® cortico to prevent soft tissue perforations.
- Final dental crowns with temporary restoration of the screw channels.

- Situation after defect uncovering: careful detachment of the lingual mucosa from the suprathyroid muscles for flap mobilization.
- Additional application of L-PRF matrices for improved wound healing.
- Saliva-tight and tension-free wound closure by a combination of horizontal mattress and single button sutures.
- Contouring with particles also outside of maxgraft® cortico to prevent soft tissue perforations.
- Soft tissue improvement with mucoderm® crestally and laterally.
- Adequate distance to the local bone, angulated positioning of the screws and application of the groove technique.

- Combined horizontal and vertical 3D-bone augmentation with the shell technique. Adaptation of the cortical plates and fixation with 1 mm microscrews.
- Situation after defect uncovering: careful detachment of the lingual mucosa from the suprathyroid muscles for flap mobilization.
- Filling of the defect.
- Implant insertion eight months after augmentation.
- OPG post-augmentation.
- Tension-free wound closure.

- Saliva-tight and tension-free wound closure by a combination of horizontal mattress and single button sutures.
- Fixation of maxgraft® cortico, taking into account the bone level of the next tooth and thorough removal of sharp edges.
- OPG post-implantation.
- Uneventful soft tissue healing.

- Contouring with particles also outside of maxgraft® cortico to prevent soft tissue perforations.
- Soft tissue improvement with mucoderm® crestally and laterally.
- Adequate distance to the local bone, angulated positioning of the screws and application of the groove technique.

- Implant insertion eight months after augmentation.
- OPG post-implantation.
- Emergence profile prior to installation of provisionals.
- Provisional restoration in place.

FREE-END SITUATION IN THE MANDIBLE

- Clinical situation.
- Fixation of maxgraft® cortico, taking into account the bone level of the next tooth and thorough removal of sharp edges.
- OPG post-augmentation.
- Uneventful soft tissue healing.

- Fixation of maxgraft® cortico, taking into account the bone level of the next tooth and thorough removal of sharp edges.
- OPG post-implantation.
- Uneventful soft tissue healing.

- Fixation of maxgraft® cortico, taking into account the bone level of the next tooth and thorough removal of sharp edges.
- OPG post-implantation.
- Uneventful soft tissue healing.
**maxgraft® bonebuilder**

**CUSTOMIZED ALLOGENIC BONE BLOCK**

With maxgraft® bonebuilder, harvesting of autologous bone and manual adjustment of the obtained block is no longer required for the treatment of extensive defects. Donor site morbidity, operation time and costs can be significantly reduced.

**INDICATIONS:**
- Implantology, Oral and CMF Surgery
- Horizontal and vertical augmentation
- Extensive bone defects

**PROPERTIES**
- Natural mineralized collagen
- Fast graft incorporation and complete remodelling potential
- 5-6 months healing / integration time
- 5 years shelf life at 5-30°C

**Product Specifications**

<table>
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<th>Content</th>
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<tbody>
<tr>
<td>PM1s</td>
<td>Individual planning and production of a bone block max. dimensions 23 x 13 x 13 mm</td>
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<tr>
<td>PM2s</td>
<td>additional block(s) for this patient</td>
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<table>
<thead>
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<th>Art.-No.</th>
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<tbody>
<tr>
<td>3D TOC</td>
<td>Individual 3D printed model of the patient’s defect including the planned maxgraft® boneblock for demonstration purposes, material: synthetic filament</td>
</tr>
</tbody>
</table>

**INDICATIONS:**
- Implantology, Oral and CMF Surgery
- Horizontal and vertical augmentation
- Extensive bone defects

**The maxgraft® bonebuilder technology**

**In-house planning**

botiss virtually designs the patient customized allogenic bone block based on the CT/CBCT-scan of the bone defect.

1. **Upload of CT/CBCT-data on**
   www.botiss-bonebuilder.com
   After registration, CT/CBCT-data of the patient can be uploaded on the botiss server. All radiological data have to be single-frame data images. The only data type suitable for 3D planning is DICOM (*.dcm).

2. **Block design**
   botiss virtually designs the patient customized allogenic bone block based on the CT/CBCT-scan of the bone defect.

3. **Design quality check**
   The clinical user receives a 3D PDF file containing the virtually constructed maxgraft® bonebuilder block and has to confirm its design.

4. **Individual order**
   The production of the block starts after the clinical user fills in the patient based order form for the bone block to the attention of botiss biomaterials.

5. **Production of the individual bone block**
   Each individual maxgraft® bonebuilder is milled from a processed allogenic cancellous block under cleanroom conditions, double-packaged and sterilized using gamma irradiation.
CLINICAL APPLICATION OF MAXGRAFT® BONEBUILDER

CLINICAL CASE BY
Dr. Oliver Blume, Munich, Germany

RIDGE AUGMENTATION IN THE MAXILLA

Pre-operative clinical and radiological situation before augmentation

3D reconstruction of the bone defect and planned maxgraft® bonebuilder blocks

Severe ridge atrophy

Fixation and contouring with allogenic particles

Covering with Jason® membrane and one layer of PRF matrices

Tension-free wound closure

Perfect fit and fixation on right side

CBCT six months post-operative

5 months post-operative clinical situation

Extended alveolar ridge width for stable implant placement

Temporary restoration

CLINICAL CASE BY
Dr. Frank Kloss, Lienz, Austria

RIDGE AUGMENTATION IN THE AESTHETIC ZONE

Clinical situation before augmentation

Complex bone defect of the buccal wall

3D reconstruction of the bone defect and planned maxgraft® bonebuilder

maxgraft® bonebuilder

Perfect fit and fixation

Contouring with cerabone® and covering with Jason® membrane

Pre-operative CBCT scan and five months post-operative outcome

Osseointegrated implants at re-entry

Three years follow-up: stable situation
maxgraft® bonering is a pre-fabricated cancellous ring of human donor bone, which is placed press-fit into a trephine drill-prepared ring bed. At the same time, an implant is inserted into the ring. The bony integration of both, maxgraft® bonering and the implant, occurs via the surrounding vital bone.

**Preparation of ring bed**

After determination of the position of the implant by the planator tip and the pilot drill, the ring bed is prepared with the trephine. Subsequently, the planator allows even paving of the local bone for optimal contact with maxgraft® bonering and in addition, removes the cortical layer for improved graft revascularisation. Rehydration is recommended (10 min in saline solution).

**INDICATIONS:**

**Implantology**
- Vertical augmentation (in combination with horizontal augmentation)
- Single tooth gap
- Sinus lift (4 mm – 1 mm residual bone height)

**ADVANTAGES**

- Simultaneous implant placement and bone augmentation
- No second surgical procedure
- Significant reduction of treatment time

**Soft tissue management**

Sharp edges should be smoothed to avoid soft tissue perforation and to support wound healing. Moreover, maxgraft® bonering should be covered with a slowly resorbable bone regeneration material (e.g. cerabone®) to fill the residual defect volume and to avoid potential adaptation resorption of the graft.

**Simultaneous bone augmentation and implant placement**

**Smoothing**

**maxgraft® bonering surgical kit**

With this surgical kit, botiss provides all necessary instruments to apply the maxgraft® bonering technique. The kit includes two convenient sizes of trephines, which precisely fit together with the maxgraft® bonering diameters.

The planators allow paving of the local bone to create a congruent and fresh contact surface of the implant area. The diamond disc and the diamond tulip help to shape the maxgraft® bonering for excellent adjustment to the local bone and for improved soft tissue healing. Altogether, these instruments allow optimal preconditions for the bony ingrowth of maxgraft® bonering. All instruments are made of high quality surgical steel.

**Product Specifications**

**maxgraft® bonering 3.3**

<table>
<thead>
<tr>
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<th>Dimension</th>
<th>Content</th>
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<tbody>
<tr>
<td>33165</td>
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<tr>
<td>33170</td>
<td>cancellous ring, Ø 7 mm</td>
<td>1 x</td>
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**maxgraft® bonering 4.1**

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<tbody>
<tr>
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<td>cancellous ring, Ø 7 mm</td>
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**maxgraft® bonering surgical kit**

<table>
<thead>
<tr>
<th>Art.-No.</th>
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<tbody>
<tr>
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<td>trephine, 8 mm</td>
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<td>30175</td>
<td>trephine, 6 mm</td>
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<tr>
<td>30180</td>
<td>diamond disc, 10 mm</td>
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<tr>
<td>30185</td>
<td>diamond tulip, 3 mm</td>
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**maxgraft® bonering surgical kit**

<table>
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<tr>
<td>30174</td>
<td>trephine, 7 mm</td>
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<td>trephine, 8 mm</td>
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<td>30185</td>
<td>trephine, 6 mm</td>
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<tr>
<td>30190</td>
<td>diamond disc, 10 mm</td>
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<tr>
<td>30195</td>
<td>diamond tulip, 3 mm</td>
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</table>
CLINICAL CASE BY
Amit Patel, Birmingham, United Kingdom

BONE AUGMENTATION AND IMPLANTATION IN SINGLE-TOOTH GAPS
Restoration of buccal bone lamella with maxgraft® bonering

- Initial situation shows bone loss due to lack of physical load of bridge retained region 11.
- Clinical situation at time of entry shows loss of buccal bone lamella.
- Pilot drill to determine later implant position.
- Trephine drill 7 mm for maxgraft® bonering 7 mm.
- After preparation with the planator, the necessary length of maxgraft® bonering 7 mm is estimated.
- Cutting maxgraft® bonering to the required size with bonering fix.
- Implant bed preparation through maxgraft® bonering.
- Placing the implant in order to fixate maxgraft® bonering.
- Smoothing the edges of maxgraft® bonering.
- maxgraft® bonering and implant in place.
- PrefGel® applied as root surface conditioner.
- Application of enamel matrix derivative for regeneration of bone around the roots of adjacent teeth.
- cerabone® granules for contouring the defect and to help slow down resorption of the bone.
- Jason® membrane to protect the bone graft from soft tissue ingrowth.
- Flap is sutured with mattress suture to prevent micromovements of the grafted area.
- Sutured free of tension.
- Rest of enamel matrix derivative applied to support wound healing.
- Four weeks after surgery eventless healing and healthy soft tissue.
- Prosthetic restoration six months after surgery with aesthetical outcome.

Continuing education
Visit us on: botiss-CAMPUS.com

For more clinical cases, videos and handling tips visit:
INDICATION-MATRIX.COM
**maxgraft® Product Specifications**

### maxgraft® cancellous granules

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<td>30010</td>
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<td>30040</td>
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### maxgraft® cortico-cancellous granules

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<td>30010S</td>
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<tr>
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<tr>
<td>30040S</td>
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### maxgraft® blocks

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<tr>
<td>31112</td>
<td>uni-cortical*, 20 x 10 x 10 mm</td>
<td>1 x Block</td>
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*post mortem donors

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**maxgraft® bonering**

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<td>33032</td>
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<td>33034</td>
<td>diamond disc, 10 mm</td>
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<tr>
<td>33035</td>
<td>diamond tulip, 3 mm</td>
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**maxgraft® bonering surgical kit**

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<th>Art.-No.</th>
<th>Dimension</th>
<th>Content</th>
</tr>
</thead>
<tbody>
<tr>
<td>33160</td>
<td>cancellous ring 3.3 ø 6 mm</td>
<td>1 x</td>
</tr>
<tr>
<td>33170</td>
<td>cancellous ring 3.3 ø 7 mm</td>
<td>1 x</td>
</tr>
<tr>
<td>33174</td>
<td>cancellous ring 4.1 ø 7 mm**</td>
<td>1 x</td>
</tr>
</tbody>
</table>

*Height 10 mm, recommended for implant diameters from 3.3 - 3.5 mm

**Height 10 mm, recommended for implant diameters from 4.1 - 4.5 mm

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**maxgraft® bonebuilder**

<table>
<thead>
<tr>
<th>Art.-No.</th>
<th>Content</th>
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</thead>
<tbody>
<tr>
<td>PMIa</td>
<td>Individual planning and production of a bone block max. dimensions 23 x 13 x 13 mm</td>
</tr>
<tr>
<td>PMIa2</td>
<td>additional block(s) for the same patient</td>
</tr>
</tbody>
</table>

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**bonebuilder dummy**

<table>
<thead>
<tr>
<th>Art.-No.</th>
<th>Content</th>
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</thead>
<tbody>
<tr>
<td>32100</td>
<td>Individual 3D printed model of the patient’s defect and the planned bonebuilder for demonstration purposes made of synthetic material</td>
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</tbody>
</table>

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**maxgraft® cortico**

<table>
<thead>
<tr>
<th>Art.-No.</th>
<th>Dimension</th>
<th>Content</th>
</tr>
</thead>
<tbody>
<tr>
<td>31250</td>
<td>cortical strut, 25 x 10 x 1 mm</td>
<td>1 x</td>
</tr>
<tr>
<td>31251</td>
<td>cortical strut, 25 x 10 x 1 mm</td>
<td>3 x 1”</td>
</tr>
</tbody>
</table>

*post mortem donors

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**cortico trimmer**

<table>
<thead>
<tr>
<th>Art.-No.</th>
<th>Content</th>
</tr>
</thead>
<tbody>
<tr>
<td>34003</td>
<td>cortico trimmer</td>
</tr>
</tbody>
</table>
Innovation.
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