

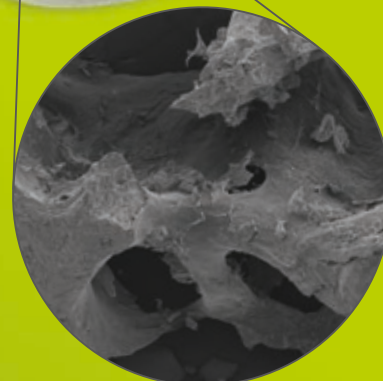
Allograft



Biomaterials@Straumann®  
Because one option is not enough.

# botiss maxgraft® granules botiss maxgraft® blocks

PROCESSED HUMAN ALLOGRAFT



# maxgraft® granules maxgraft® blocks

maxgraft® allograft is the safe and established alternative to autologous bone. maxgraft® granules and blocks are 100 % derived from living donor bone processed under pharmaceutical conditions by the Cells and Tissue Bank Austria (C+TBA).

## FEATURES AND BENEFITS

<b>Safety and biocompatibility</b>	The cleaning process of maxgraft® products preserves the natural structure of both the mineral phase and the organic phase (collagen). Collagen attracts endothelial cells and osteoblasts by chemotaxis. This ensures quick incorporation and complete remodeling. maxgraft® products have an impressive track record in safety with no reported cases of disease transmission.
<b>Biofunctionality</b>	High porosity and the physiologic content of human collagen account for the excellent osteoconductivity of maxgraft®. The natural bone structure allows complete integration of the implant due to the ingrowth of cells and blood vessels.
<b>Hydrophilicity</b>	Interconnected pores and rough surface morphology are fundamental to good hydrophilicity. Due to their excellent hydrophilicity, the maxgraft® products absorb liquid quickly. Adhesion of proteins and signaling molecules from the blood further improves the biological properties of maxgraft®.
<b>Volume stability</b>	Due to its close similarity to native bone, maxgraft® will be degraded by osteoclasts if not loaded after the healing period. Depending on the indication, the product can be mixed with a slow resorbable grafting material (e.g. with cerabone® in sinus floor elevation).
<b>Patient comfort</b>	maxgraft® is the safe and trusted bone regeneration solution most similar to a patient's own bone. It is a true alternative to autologous bone, eliminating donor site complications such as morbidity, infection or postoperative pain.

### Recommended for

maxgraft® is recommended for implantology, oral surgery, periodontology and craniomaxillofacial surgery (CMF):

- Sinus floor elevation
- Horizontal augmentation
- Vertical augmentation
- Ridge augmentation
- Socket preservation
- Onlay block grafts
- Bone defect augmentation
- Intraosseous defects
- Furcation defects



For further informations please visit  
[www.straumann.com](http://www.straumann.com)

## PROPERTIES

Attribute	Description
Origin	All products originate from femoral heads explanted from living donors (hip total endoprosthesis).
Composition	Natural mineralized collagen
Porosity	65-80 %
Pore size	600-900 µm
Degradation kinetics	Fast graft incorporation and complete remodeling to patients' own bone.
Healing/integration time	3-4 months with particles 5-6 months in block augmentation
Storage temperature	5-30 °C
Shelf life	5 years



Courtesy of Dr. Algirdas Puišys, Vilnius/Lithuania

## APPLICATION AND HANDLING

### Opening

maxgraft® is delivered sterile and must be used immediately after opening in an aseptic environment.

### Rehydration

Rehydration of maxgraft® granules in blood from the defect site or saline solution is not necessary but facilitates handling and application because the wetted maxgraft® granules stick together. maxgraft® blocks do not need to be rehydrated.

### Application of granules

- Avoid compressing the particles during application. Non compacted particles leave space for blood vessel ingrowth and formation of new bone matrix.
- Fill the defect as completely as possible.
- Ensure maximum contact between the graft material and viable bone in a well vascularized area.

### Application of blocks

- Ensure maximum contact between the block and viable bone in a well vascularized area.
- For fixation of the block, prepare a pilot hole carefully and fix the screw slowly without pressure.
- Additional use of a granulated bone substitute may be recommended for achieving the aimed esthetic bony contour and for filling possible gaps.

### Covering

Always cover the augmentation site with a barrier membrane

to ensure undisturbed osseous regeneration and to prevent migration of the particles into the oral cavity.

### Wound closure

Ensure that soft tissue coverage of the augmented site is complete and free of tension. Undisturbed vascularization of the augmented site is of utmost importance.

### Healing time and re-entry

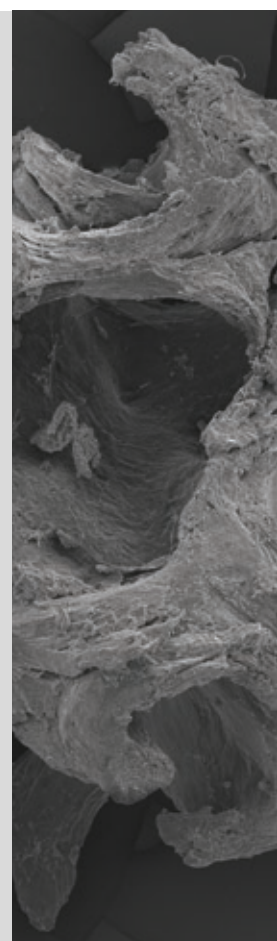
The appropriate healing time is patient- and site-dependent and has to be decided by the clinician based on the assessment of the patient's individual situation. Depending on the defect size, the graft will be incorporated stably within approx. 3-4 months (particles in socket preservation, smaller bone defects, periodontal defects) or approx. 5-6 months (block grafting in extensive defects).

### Mixing with other bone substitutes

Mixing of maxgraft® granules with autologous bone adds a biological activity (osteoinductive and osteogenetic properties of autologous bone) and supports faster regeneration and formation of new bone.

### Mixing with cerabone®

Mixing of maxgraft® granules with xenogenic materials (cerabone®) combines the advantages of both materials; the biological potential of maxgraft® and the long-term volume stability of cerabone® lead to fast regeneration of strong vital bone.



### Available in the following sizes

Code	Description	Product
BO-31005	< 2 mm, 1x0.5 cc (ml)	maxgraft® cortico-cancellous granules
BO-31010	< 2 mm, 1x1.0 cc (ml)	
BO-31020	< 2 mm, 1x2.0 cc (ml)	
BO-31040	< 2 mm, 1x4.0 cc (ml)	
BO-32112	20x10x10 mm, 1x block	maxgraft® cancellous block
BO-32111	10x10x10 mm, 1x block	

Code	Description	Product
BO-30005	< 2 mm, 1x 0.5 cc (ml)	maxgraft® cancellous granules
BO-30010	< 2 mm, 1x1.0 cc (ml)	
BO-30020	< 2 mm, 1x2.0 cc (ml)	
BO-30040	< 2 mm, 1x4.0 cc (ml)	

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