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BONE GRAFT

TECHNOLOGIES

OSTEOMATRIX
BIOGUARD
BIOGAP



OSTEOMATRIX

BIOGUARD

BIOGAP

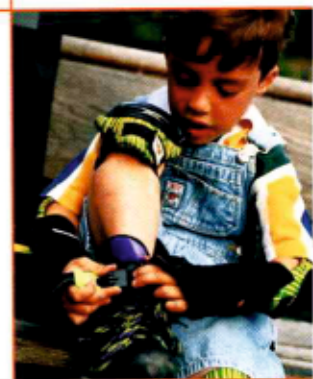


You will be proud of your results



- **Traumatic surgery and orthopedics**
- **Neurosurgery**
- **Stomatology**
- **Spinal surgery**
- **Ophthalmology**
- **Sports medicine**
- **Plastic surgery**

- Applicable in all areas of bone surgery
- Stimulates regeneration and bone growth
- Prepared in aseptic conditions
- Freed from antigens completely
- Guaranteed unchanged structure of bone tissue
- High efficiency of the material has been proved
- Contains bone sGAG in physiological concentrations



Quality standard

The company has implemented an international quality control system in accordance with ISO 13485

Unique properties of the “OSTEOMATRIX”, “BIOGAP” and “BIOGUARD” are the results of the use of advanced technologies in the manufacture and natural source of their origin. Constantly and carefully controlled processes of sampling raw materials and manufacturing products ensure a high level of safety and quality standards for these materials.

Bones of cattle are used as the raw materials for the production of xeno materials of “OSTEOMATRIX”, “BIOGAP” and “BIOGUARD”. Raw materials for our production come only from certified companies, which are strictly controlled by veterinary statutory bodies, ensuring a high level of sanitary and epidemiological safety.

In accordance with the patented technology of obtaining “OSTEOMATRIX”, the bone tissue undergoes a multistage chemical and enzymatic treatment that allows obtaining a natural material with a high degree of purification and completely free from non-collagen proteins. Thanks to the unique technology OSTEOMATRIX® material keeps natural architectonics, mineral and collagen components. In this case, the structure of the bone matrix of the “OSTEOMATRIX” is not distinguishable from human bone matrix, which is the basis of its pronounced osteoinductive properties.

“BIOGAP” is obtained from the spongy substance of the bones of the cattle extremities, exposing them to chemical and temperature treatments. As a result of these actions, a highly purified 100% mineral bone component without organic inclusions is obtained, with natural architectonics and a high content of hydroxyapatite.

The use of highly specific technology allowed the introduction of bone sulfated glycosaminoglycans into the structure of “OSTEOMATRIX” and “BIOGUARD” and, thereby, to provide a new, higher level of quality of these materials. The proof of the latter is the successful application of these materials in many areas of medical practice.



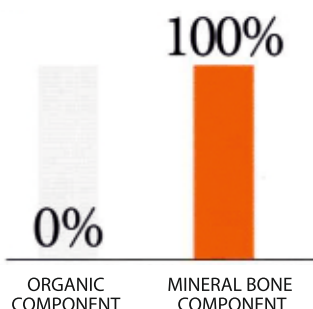
During the production of “BIOGUARD”, a high degree of purification of bonecollagen from non-collagen proteins and other components is achieved. Experimental, preclinical and clinical studies demonstrated complete absence of antigenic properties and as a consequence, their high biological compatibility and subsequent bio-integration.



BUY

A highly purified mineral bone matrix, with preserved natural architectonics, obtained as a result of chemical and thermal treatment. 100% natural bone component with a high content of hydroxyapatite (more than 90%).

Osteoconductive, porous material, which has a macro and micro structure similar to human bone. Due to the lack of antigenicity and immunogenicity, the material is characterized by high biocompatibility with human bone tissue. The porous structure reliably supports the volume of the filled defect. It facilitates the formation of new bone under the influence of osteoclasts and osteoblasts. This is a protector for the germination of the epithelium.



Crumb



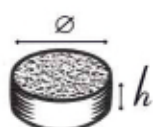
Cat Nº	Volume	Size
40300	0,3 cm ³	0,25 - 1 mm
40301	0,5 cm ³	0,25 - 1 mm
40302	1 cm ³	0,25 - 1 mm
40303	2 cm ³	0,25 - 1 mm
40304	4 cm ³	0,25 - 1 mm

Chips



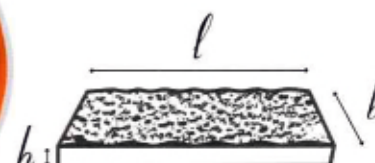
Cat Nº	Volume	Size
40400	0,3 cm ³	1 - 2 mm
40401	0,5 cm ³	1 - 2 mm
40402	1 cm ³	1 - 2 mm
40403	2 cm ³	1 - 2 mm
40404	4 cm ³	1 - 2 mm

Disk



Cat Nº	Volume	Size	
		∅	H
40100	0,3 cm ³	10 mm	3 mm

Plate



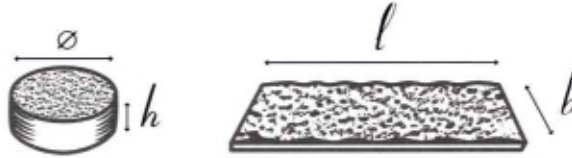
Cat Nº	Volume	Size		
		L	B	H
40101	0,6 cm ³	30 mm	10 mm	2 mm
20100	1,8 cm ³	30 mm	20 mm	3 mm

SET BioGap Bioguard

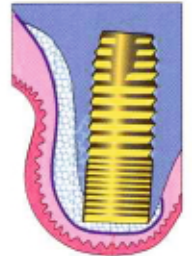
BIOGAP SET BIOGUARD



BUY



Cat №	Volume	Size			
		\varnothing	H	L	B
40600	Disk	0,3 cm ³	10 mm	3 mm	
	Membrane			25 mm	15 mm



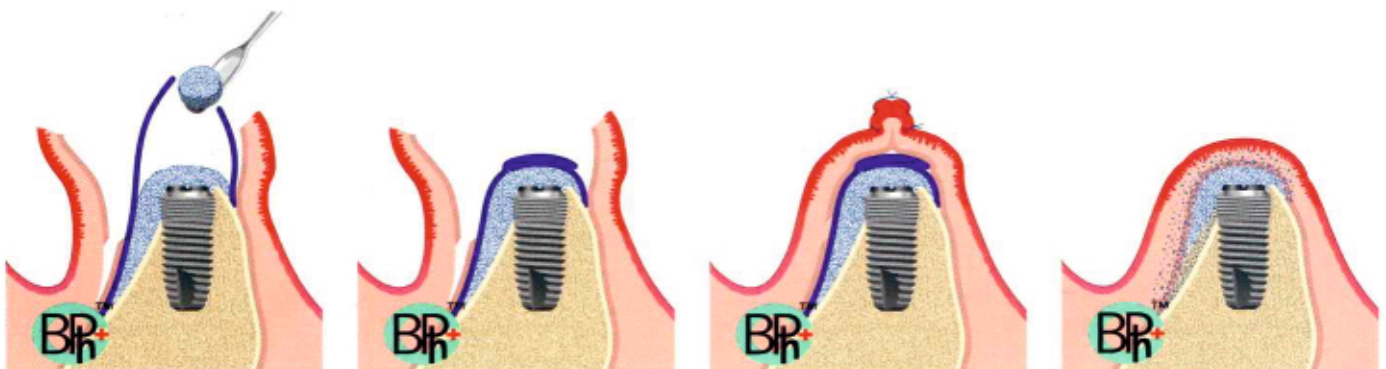
Any kind of bone trauma, including extraction and implantation (regardless of implant manufacturer), leads to osteoclastic reaction of periosteum, which can cause bone atrophy:

- funnel-shaped defects around implant collar;
- slit-like defects at the vestibular side of alveolar process.

Creating a barrier from poorly resorbable or fully non-resorbable membranes is a prophylaxis from such defects.

Since absolute majority of osteoplastic materials comes in powder form, it is inconvenient for a doctor to use them because the material can spill in the wound, there is a necessity to mix the material with bonding components (blood, platelet-rich plasma etc.). All this increases manipulation time. Moreover, several different packages of material and membranes must be available.

KONEKTBIOFARM company created a unique kit “SET” on the principle “all in one”. The bone mineral mixed with various substances can be easily transferred into the wound in small pieces and a doctor can form the desired layer on the surface of the bone. Formed layer can be protected with collagen membrane to prevent particle migration after closing the wound.



BIOGUARD



Biocomposite material, highly purified decalcified collagen bone matrix, containing affinity-bound bone sulfated glycosaminoglycans (sGAG) of at least 1.5 mg / cm².

Osteoconductive and osteoinductive porous biomaterial for filling the bone defect or cavity. Selective binding of blood platelets (BP) by the material allows the creation of a chemically fixed, stable BP concentration, immediately triggering a cascade of bone matrix formation reactions, without additional manipulation of the patient's blood. The material is characterized by high biocompatibility with bone tissue. Low antigenicity, not immunogenic.

100%



COLLAGEN



0%

MINERAL COMPONENT

BUY



BONE SULFATED GLYCOSAMINOGLYCANS



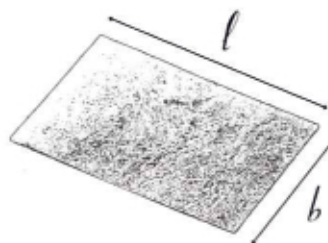
Blocks



Cat Nº	Volume	Size		
		B	H	L
40202	1,0 cm ³	5 mm	5 mm	5 mm

Resorbable collagen membrane

Highly purified xeno-collagen type I, obtained by the 'Osteomatrix' technology. The material has a high biocompatibility with the patient's bone tissue and low antigenicity - it is not immunogenic.



Hard membrane - decalcified cortical plate

Fleece coated - highly purified xeno-collagen I-type, obtained by the 'Osteomatrix' technology with one- sided waterproof coating.

Cat Nº	Volume	Size	
		L	
Standard thickness			
40205	15 mm	25 mm	
40206	20 mm	30 mm	
40211	35 mm	45 mm	
40213	40 mm	60 mm	
40214	50 mm	60 mm	
Thin			
40209	15 mm	25 mm	
40210	20 mm	30 mm	
Hard			
40200	15 mm	25 mm	
40212	10 mm	30 mm	
Fleece			
40207	20 mm	30 mm	
40208	10 mm	30 mm	

Osteomatrix

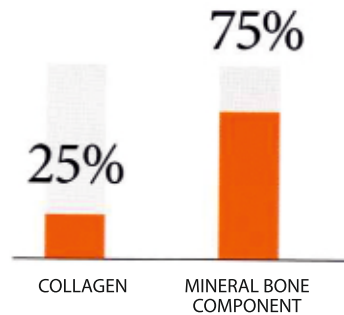
OSTEOMATRIX



BUY

Biocomposite material - highly purified spongy and cortical bone matrix with preserved collagen and mineral components and natural architectonics, affinity-bound bone sulfated glycosaminoglycans (sGAG) of at least 1.5 mg / cm³.

PROPERTIES. Osteoconductive and osteoinductive porous biomaterial for filling the bone defect or cavity. Selective binding of blood platelets (BP) by the material allows the creation of a chemically fixed, stable BP concentration, immediately triggering a cascade of bone matrix formation reactions, without additional manipulation of the patient's blood. The material is characterized by high biocompatibility with bone tissue. Low antigenicity, not immunogenic.



2
mg / cm³
BONE SULFATED
GLYCOSAMINOGLYCANS

Crumb



Cat Nº	Volume	Size
40509	0,3 cm ³	0,25 - 1 mm
40507	0,5 cm ³	0,25 - 1 mm
40508	1,0 cm ³	0,25 - 1 mm
40510	2,0 cm ³	0,25 - 1 mm

Chips



Cat Nº	Volume	Size
40500	0,3 cm ³	1 - 2 mm
40505	0,5 cm ³	1 - 2 mm
40506	1 cm ³	1 - 2 mm
20511	5 cm ³	2 - 4 mm
20513	10 cm ³	2 - 4 mm

Cat Nº	Volume	Size
20512	5 cm ³	4 - 8 mm
20514	10 cm ³	4 - 8 mm

Granules

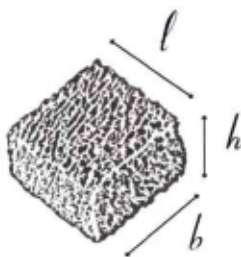


Cat Nº	Volume	Size
40501	0,5 cm ³	4-6 mm
40502	1,0 cm ³	4-6 mm

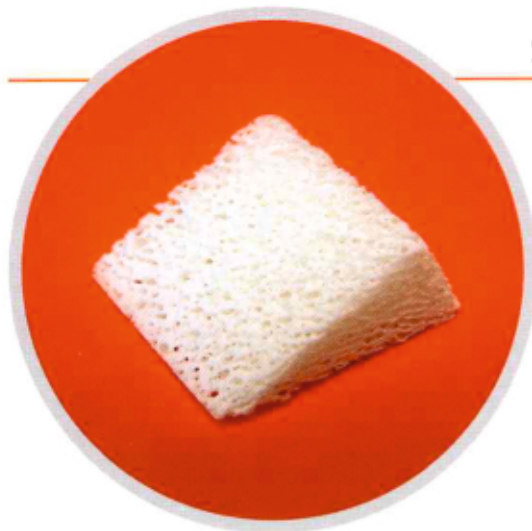
Block of spongy bone



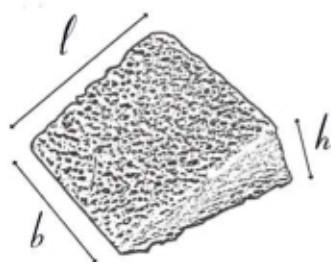
Cat Nº	Volume	Size		
		H	B	L
20520	0,5 cm ³	5 mm	10 mm	10 mm
20521	1,0 cm ³	5 mm	10 mm	20 mm
20552	3,0 cm ³	10 mm	10 mm	30 mm
20555	6,0 cm ³	10 mm	20 mm	30 mm
20557	10,0 cm ³	10 mm	20 mm	50 mm
20560	20,0 cm ³	10 mm	40 mm	50 mm



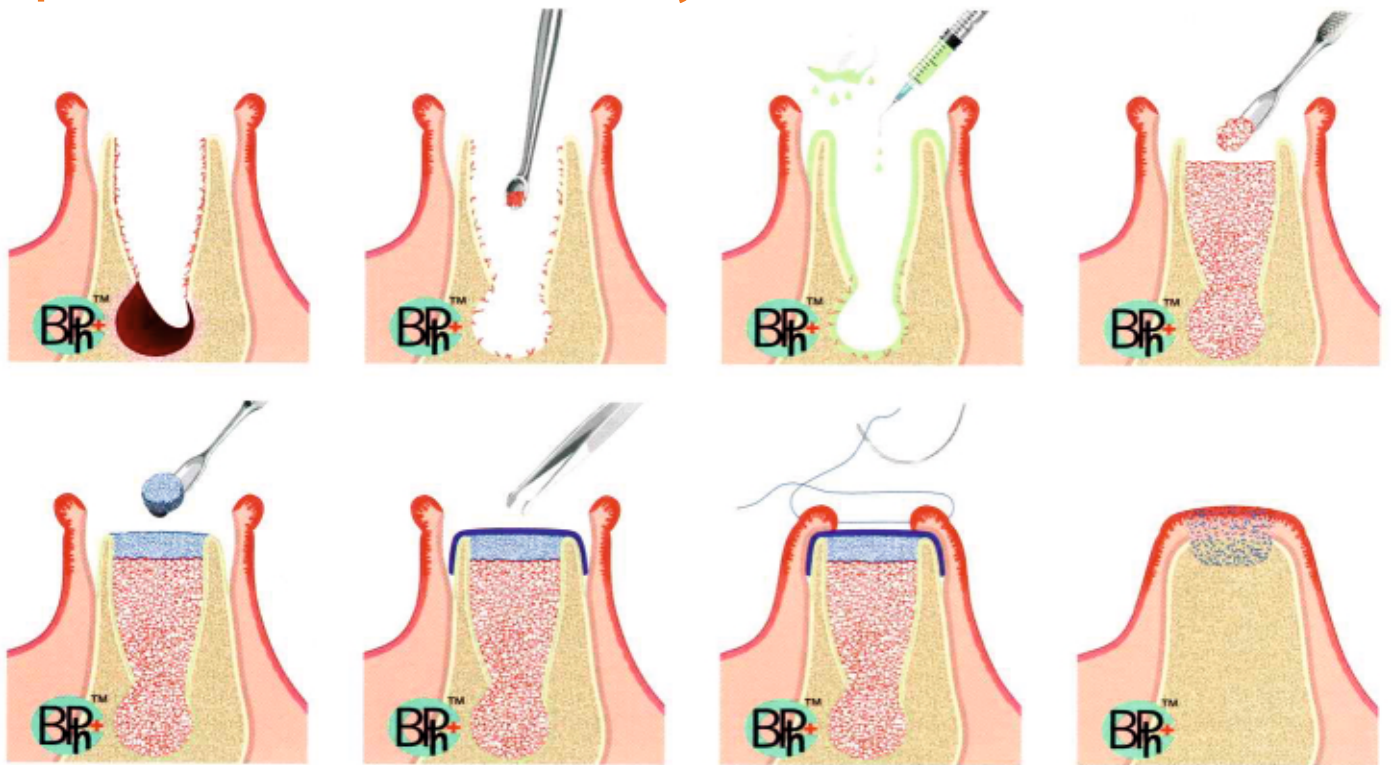
Spongeous bone wedge



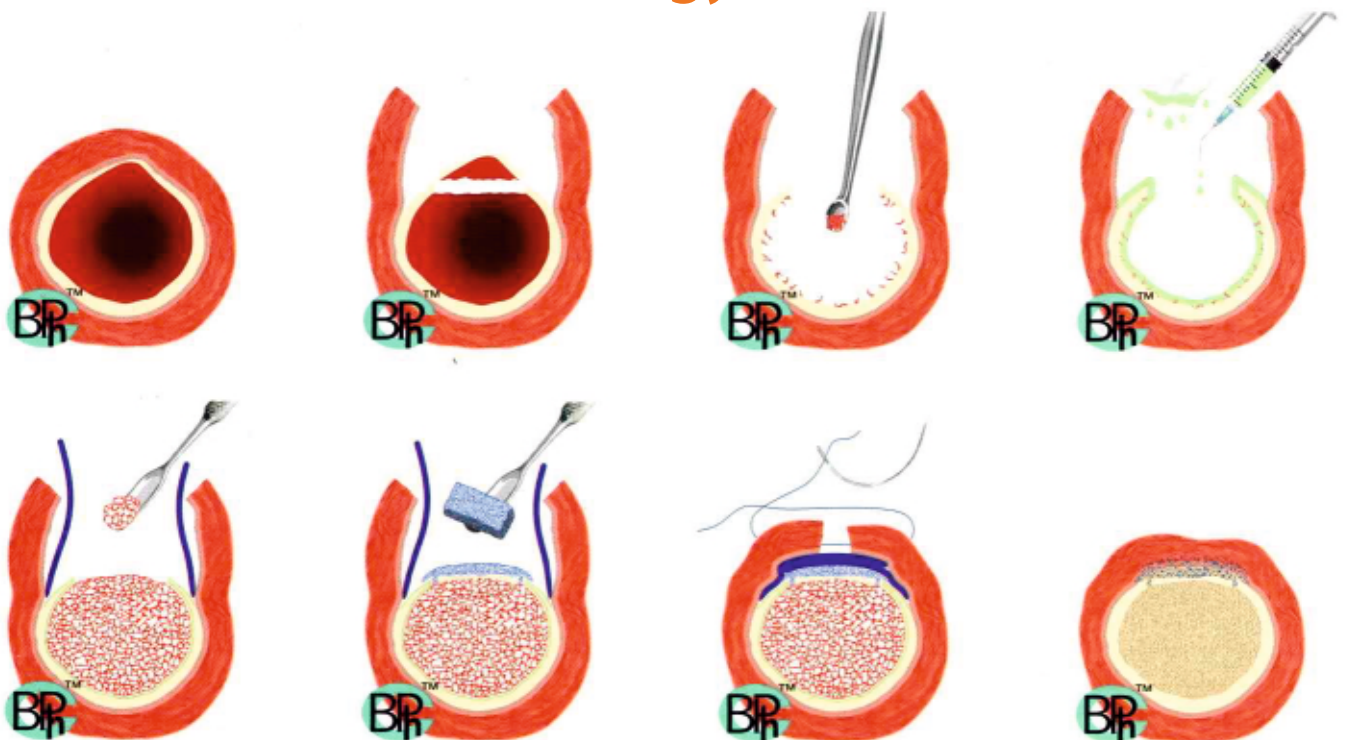
Cat Nº	Size		
	B	L	H
20575	30 mm	30 mm	10 mm
20576	30 mm	30 mm	15 mm



Instruction for tooth socket preservation (dentistry)



Instruction for bone cysts treatment (traumatology)



APPLICATION INSTRUCTIONS

BIOIMPLANT GAP

COMPOSITION: Natural and highly purified material made from 100% bone mineral with preserved natural architecture, derived from cattle bone after a multistage cleaning process using chemical and heat treatment in compliance with strict standards.

Since BIOIMPLANT GAP has natural origin its chemical composition and structure is compatible with human mineral bone.

PROPERTIES: This material is highly porous, its micro and macrostructure is similar to human trabecular bone. Due to absence of immunogenicity and antigenicity this material is highly compatible with human bone tissue.

Promotes opposing growth of bone in area of defect.

It is almost fully unresorbable. It reliably blocks osteoclasts from the periosteum and maxillary sinus (hematogenous origin).

Supports the volume and promotes a regulated increase of thickness of soft tissue in the area of application.

Prevents soft tissue from growing in the area of application.

Can be inoculated with antibiotics, protein solution etc.

INDICATIONS FOR USE:

- prevents soft tissue from penetrating into the defect;
- reconstruction of alveolar process;
- to fill the tooth socket to prevent alveolar bone atrophy;
- to fill defects after cystectomy or root resection;
- to close perforations in maxillary sinus and in mandibular nerve canal.

In Implantology:

- to fill cavities after sinus-lifting;
- to prepare the surface for implantation;
- to fill slit-like defects in bone;
- enlargement of soft tissue thickness above the implant.

In Periodontology:

- to fill periodontal defect;
- to fill bone defects;
- to support membrane and soft tissue in guided bone regeneration.

BIOMATRIX

COMPOSITION: Highly purified xenograft collagen type I and III from cattle, derived by using the technology "OSTEOMATRIX" which consists of multistage mechanical and chemical cleaning process in compliance with strict standards.

Membrane and Fleece 3D "BIOMATRIX" both have two-layer structure.

Fleece 3D differ from the membrane by more pronounced porous structure and increased hydrophilicity.

Dense layer is the same in both.

PROPERTIES: Material is highly biocompatible with soft tissue and is not immunogenic. This allows to use the material for covering the wound surface and applied materials for isolation before impact of external factors and infection. Material is hydrophilic.

The porous layer (soft) represents a sponge – a structure with increased hydrophilic (liquid retention function) and decreased compression (pressure on surface) characteristics.

The dense layer prevents fast-growing soft tissue from invading the wound and protects the wound from external factors impact. Fixation at place using suture or pins is possible. Material will be completely resorbed during several weeks.

Since xenograft collagen has natural origin, in the dry form Membrane and Fleece 3D "BIOMATRIX" can have slightly different shape and thickness.

Degradation products stimulate wound healing and increase thickness and quality of soft tissue.

INDICATIONS FOR USE:

- to prevent wastage of bone graft material;
- to close various perforations;
- using in guided bone regeneration;
- to prevent infection and growing of epithelium into the wound;
- to support the volume in bone defect restoration;

In Traumatology:

- treatment of congenital bone defects, post-traumatic and neoplastic diseases of skeleton for musculoskeletal system integrity restoration.
- to fill all types of bone defects after revision and replacement surgery;
- to fill regional defects of upper and lower limbs;
- to treat some forms of fibrous dysplasia;
- intramedullary osteogenesis with periosteum alloplasty;
- alloplasty of post-traumatic false joints.

METHOD OF APPLICATION:

When using material BIOIMPLANT GAP general principles of sterility should be followed.

Remove the granulation tissue after the defect is exposed. Sanitize the bone defect.

Remove the protective paper and take the bottle with BIOIMPLANT GAP out from the packaging.

Carefully pull the tab of the plastic cover and turn the aluminum cap counterclock-wise, according to the symbol on the cap. Remove the aluminum cap. Remove the rubber plug.

Pull out the bone material BIOIMPLANT GAP from the bottle using a sterile instrument, for example, spatula, spoon or syringe for bone material.

To improve functional performance of the material mix it with patient's blood or saline for 3-5 minutes (it is also possible to use antibiotics like lincomycin, gentamycin, doxycycline).

After necessary surgical manipulations (sanitizing; during periodontal operations – removing all granular tissue and careful removing of bone sediments) using a sterile instrument put the BIOIMPLANT GAP material into a bone defect.

Do not use excess compression during defect closing. It is recommended to seal BIOIMPLANT GAP with membrane barrier (for example, BIOMATRIX).

When closing the wound with a muco-periosteal flap, the intervention zone of the soft tissue should be completely covered.

If complete closure of the primary wound is not possible, further mobilization of the tissue flap should be performed or it is necessary to close the wound with additional membrane (for example, BIOMATRIX).

METHOD OF APPLICATION:

When using Membrane and Fleece 3D "BIOMATRIX" general principles of sterility should be followed.

After reclining the mucoperiosteal flap, access to the bone defect is made. All necessary surgical manipulations are provided.

Defect is filled with osteoplastic material (for example, OSTEOMATRIX, BIOIMPLANT GAP) without unnecessary compression.

Membrane or Fleece 3D packaging is opened.

Membrane or Fleece 3D is adapted at the surface of the defect with scissors (before cutting the material, a sterile medical paper could be used as template).

The main requirement is 2 mm overlap of the defect edges and tight contact with the bone.

Membrane or Fleece 3D is laid on the surface of the wound without additional processing.

Complete penetration of Membrane or Fleece 3D contributes to a better adhesion and adaptation to bone structures.

The material should not be in contact with saliva and other liquids in order to prevent bacterial contamination of the wound.

Additional fixation of the membrane or 3D fleece is indicated in cases of possible displacement as a result of excessive pressure on soft tissues in the postoperative period.

The mucoperiosteal flap over the Membrane or 3D Fleece is sutured without tension. The wound must be completely closed to avoid accelerated absorption and infection.

APPLICATION INSTRUCTIONS

OSTEOMATRIX

COMPOSITION: Natural and highly purified material made from cattle bone after a multistage mechanical and chemical cleaning process in compliance with strict standards. During the cleaning process collagen and mineral components of the material and natural architecture are preserved. The ratio is 25% to 75% collagen to mineral components accordingly and are not less than 1,5 mg/cm³ of GAGs (glykosaminoglycanes).

PROPERTIES: This porous material is perfect for filling the volume of bone defect and cavities. GAGs bond with thrombocytes and create chemically stable and fixed concentration of thrombocytes on the material, which instantly starts the chain of reactions which lead to bone tissue formation without additional manipulation with patient's blood. The material is highly biocompatible with bone tissue, it is not immunogenic or antigenic.

Can be inoculated with antibiotics, protein solution etc.

INDICATIONS FOR USE:

Stomatology:

- to fill cavities after sinus-lifting;
- to fill periodontal defects;
- reconstruction of alveolar process;
- to fill defects after cystectomy, root resection;
- to close perforations in maxillary sinus and in mandibular nerve canal;
- to fill the tooth socket to prevent alveolar bone atrophy.

Traumatology and orthopedics:

- treatment of congenital bone defects, post-traumatic and neoplastic diseases of skeleton for musculoskeletal system integrity restoration;
- to fill all types of bone defects after revision and replacement surgery;
- to fill regional defects of upper and lower limbs;
- to treat some forms of fibrous dysplasia;
- intramedullary osteogenesis with periosteum alloplasty;
- alloplasty of post-traumatic false joints.

METHOD OF APPLICATION:

When using material OSTEOMATRIX general principles of sterility should be followed. Remove the granulation tissue after the defect is exposed.

Sanitize the bone defect.

Remove the protective paper and take the bottle with OSTEOMATRIX out from the packaging.

Carefully pull the tab of the plastic cover and turn the aluminum cap counter clock-wise, according to the symbol on the cap.

Remove the aluminum cap.

Remove the rubber plug.

Pull out the bone material OSTEOMATRIX from the bottle using a sterile instrument, for example, spatula, spoon or syringe for bone material.

To improve functional performance of the material mix it with patient's blood or saline for 3-5 minutes (it is also possible to use antibiotics like lincomycin, gentamycin, doxycycline).

After necessary surgical manipulations (sanitizing; during periodontal operations – removing all granular tissue and careful removing of bone sediments) using a sterile instrument put the OSTEOMATRIX material into a bone defect.

Do not use excess compression during defect closing.

When using blocks, the shape of material is changed and modelled according to the congruence of the cavity with scissors, a cutter, etc. and placed in the bone defect, fixing with screws, meshes, etc.

WARNING Material must be completely isolated from the contact with soft tissue.

When using blocks, slits between blocks and bone can be filled with osteoconductive material (for example, BIOIMPLANT GAP) to prevent bone resorption.

It is recommended to cover BIOIMPLANT GAP with membrane barrier (for example, BIOMATRIX).

When closing the wound with a muco-periosteal flap, the intervention zone of the soft tissue should be completely covered.



Reliability

Security

Visibility


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You will be proud
of your results!



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