

# G-BONE MODIFIED HYDROXYAPATITE

## *d* DESCRIPTION

G-Bone Modified Hydroxyapatite granules and blocks are made of Calcium Hydroxyapatite in highly crystalline form. The body absorbs it slowly. It is derived from Bovine Bone which has been sintered at a very high temperature of +500° C. This leaves only pure inorganic structure. It does not carry any risk of transmission of any disease because no organic matter survives such high temperature. It is available in form of granules and blocks, dowels, spheres, plugs.

The information, given below, is not exhaustive and is for guidance only. The surgeon is best advised to use the method, which his own practice and discretion dictate to be best for the patient.

## *i* INDICATIONS

G-Bone is indicated in almost all the places where a bone graft is required. Following are some of the indicative uses specialty wise.

- Neurosurgery: Cranioplasty, cavity filling and other kind of non-weight bearing reconstructions.
- Orthopedic Surgery: Cavity filling, gap filling, osteotomy reconstructions and other places of reconstructions, non union fracture and filling the gaps in cases of bone loss due to trauma.
- Plastic Surgery: Maxillofacial reconstructions, bony augmentation, hand surgery & cavity filling.
- Dental Surgery: Maxillofacial reconstruction surgery, periodontics, orthodontics and other areas requiring a bone graft.
- Other Specialties: Where a bone graft is required.

## *c* CONTRAINDICATIONS

Presence of infection whether local or general, prohibits all kind of implantation procedures. Open wounds will not respond well with bone grafting



surgeries.

Poor general health and metabolic deficiencies will not produce desired results.

Above mentioned contraindications are general. The surgeon must evaluate the individual patient for the risks involved.

## *m* METHOD OF USE

G-Bone implantation is an implantation procedure. It carries a greater risk of infection because of large surface area. It is advisable to take all precautions necessary for an implantation procedure. Some of the points are given below:

- a. It should be first procedure in the morning.
- b. There should be minimum number of people inside the theatre (4persons). No scrub nurse
- c. There should be minimum movement inside OT.
- d. Procedure should be as fast as possible 20-50 minutes.
- e. Use disposable mops only ( it is a must)
- f. Use disposable drapes.
- g. Use incise drapes on incision sites.
- h. Only 2-4 procedures in a day.
- i. The grafting material should be opened only just before implantation.
- j. Minimum handling of graft material.
- k. Use skin staplers for skin closure.

After opening the site of implantation, obtain good

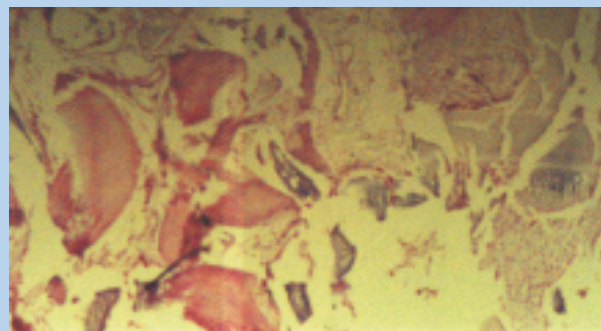


Photo Micrograph showing ingrowth of tissue

be all free from disease & sufferings

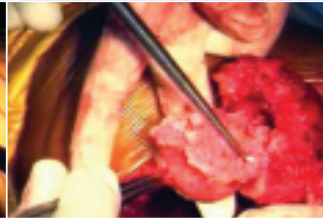
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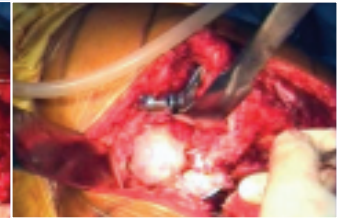
Harvesting of Bone



Mixing of Harvested Bone with G-Bone



Packing Mixture into Femur



Packing Mixture into Acetabulum

hemostasis of the area. Scrap the walls of the cavity/defect. Remove all soft tissue from the cavity or defect. Harvest some bone and bone marrow from the same site by scraping and shallow drilling in the cavity. Incorporation of patients own bone and bone marrow provides BMP's for bone healing and improves results. Larger cavity size needs larger percentage of patients own bone. Fill gap with G-graft blocks or granules.

Cover the gap with soft tissue. Gelatine foam sponge may be used to cover the granules and to prevent spilling of granules. Calcium phosphate cement (G-Bone CP Cement) may also be used to secure the granules and top the cavity.

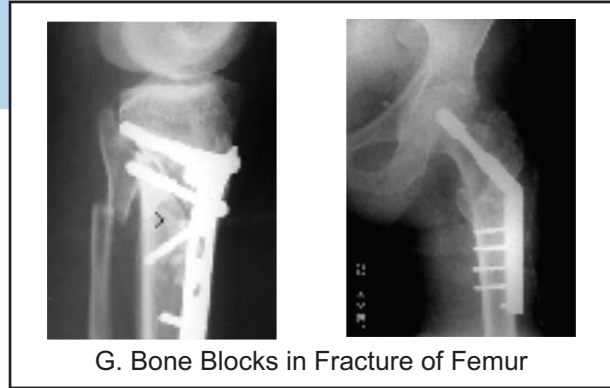
## C COMPLICATIONS

Complications which may result from the use of this product include the risks associated with the medication and methods utilized in the surgical procedure, as well as patients response, reaction or degree of intolerance to any foreign object implanted into the body.

The medical literature is full of hazards and complications associated with use of Calcium Hydroxyapatite. Some of the major hazards are infection, extrusion of grafted material, serous discharge, serous collection, hemorrhage, skin erosion and migration.

## P PRESENTATION

**Granules** 10cc Pack  
 0.1-0.4 mm average Particle Size MHAG1  
 0.4-0.9 mm average Particle Size MHAG2  
 0.8-1.8 mm average Particle Size MHAG3  
 1.8-3 mm average Particle Size MHAG4



G. Bone Blocks in Fracture of Femur

**Granules** 1cc Pack  
 0.1-0.4 mm average Particle Size MHAG11  
 0.4-0.9 mm average Particle Size MHAG21  
 0.8-1.8 mm average Particle Size MHAG31

**Blocks** Average Block size & quantity  
 1 x0.5 x0.5 cm 20 nos. MHAB1  
 1 x 1 x2 cm 5 nos. MHAB2  
 1 x 1.5 x2 cm 3 nos. MHAB3  
 2 x 3 x0.3 cm 1 no. MHAB4  
 2 x2 x0.5 cm 1 no. MHAB5

**Dowel** Average Dowel size  
 Dia 12 length 14 mm MHAD1  
 Dia 14 length 16 mm MHAD2  
 Dia 16 length 18 mm MHAD3  
 Dia 18 length 20 mm MHAD4  
 Dia 20 length 22 mm MHAD5

## PRODUCT INFORMATION DISCLAIMER

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European Authorised Representative  
 Obelis s.a.,  
 34, Av. De Tervuren, bte 44 BELGIUM  
 Tel: +32 2 732 5954 Fax: +32 2 732 6003  
 e-mail: mail@obelis.net

Made in India by:

**G. Surgiwear Limited**  
 Rasoolpur Jahanganj, Shahjahanpur-242001  
 Tel: +91 5842-223818 Fax: +91 5842-222190  
 e.mail: surgewear@hotmail.com

Delhi: 65454565, Mumbai: 66994258, Ahmedabad: 27545218

[www.surgewear.co.in](http://www.surgewear.co.in)