

# G-GRAFT HYDROXYAPATITE WITH COLLAGEN

## *i* INTRODUCTION

Conventional bone grafting is done with autologous bone graft from iliac crest, which is still the gold standard. However, it involves another operative procedure, longer operating time and more trauma to the patient. The donor site becomes painful after healing.

Surgiwear has developed xenograft in the name of G-Graft. It is natural Hydroxyapatite with natural collagen and with naturally occurring trabecular pattern. It is very useful for bone repair and replenishment. It can be used in weight bearing areas.

**One should remember that results of use of G-Graft may be inferior to autologous bone.**

## *d* DESCRIPTION

G-Graft is made of natural low crystalline Hydroxyapatite with collagen. It is available in form of granules, dowels and blocks. The shape can be changed by using Gigli saw and bone nibblers.

The information, given here, 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-Graft is indicated in almost all the places where a bone graft is required. Following are some of the indicative uses specialty wise.

- Neurosurgery: Lumber & cervical fusion, vertebral reconstruction, cranial reconstruction and other types of reconstructions.
- Orthopedic Surgery: Lumber & cervical fusion, vertebral reconstruction, cranial reconstruction and other types of reconstructions, Cavity filling, osteotomy 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.

## *w* WARNINGS

Collapse of G-Graft is a possibility.

Do not re sterilize G-Graft.

Only blocks with weight bearing line should be used for weight bearing areas.

The slot line on the block should be parallel with weight bearing axis of the body.

## *m* METHOD OF USE

G-Graft 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.

be all free from disease & sufferings

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- 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 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.

Some complications specific to G-Graft are following:

- Collapse of block: There must be secondary arrangements to prevent damage due to collapse of block
- Fracture of G-Graft
- Lack of integration

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.

### **Granules 10cc pack**

0.5-0.9 mm average particle size	GGG1
0.8-1.9 mm average particle size	GGG2
1.8-5.0 mm average particle size	GGG3

### **Granules 1cc pack**

0.5-0.9 mm average particle size	GGG11
0.8-1.9 mm average particle size	GGG21
1.8-5.0 mm average particle size	GGG31

### **Chips 10cc pack**

5x 15 mm average chip size	GGC1
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### **Blocks Average Block size and qty**

30 x 15 x 6 mm 1 no.	GGB6
30 x 15 x 7 mm 1 no.	GGB7
30 x 15 x 8 mm 1 no.	GGB8
30 x 15 x 9 mm 1 no.	GGB9
30 x 15 x 10 mm 1 no.	GGB10
30 x 15 x 12 mm 1 no.	GGB12
30 x 15 x 14 mm 1 no.	GGB14
30 x 15 x 16 mm 1 no.	GGB16
30 x 15 x 18 mm 1 no.	GGB18
30 x 15 x 20 mm 1 no.	GGB20

### **Dowel Average Dowel size and qty. One**

Dia 8, length 10 mm	GGD8
Dia 10, length 12 mm	GGD10
Dia 12, length 19 mm	GGD12
Dia 13, length 19 mm	GGD13
Dia 14, length 19 mm	GGD14
Dia 15, length 19 mm	GGD15
Dia 12, length 5 mm	GGBP

### **Burr Hole Plugs**

Dia 12 mm x 5 mm	GGBP1
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### **PRODUCT INFORMATION DISCLAIMER**

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