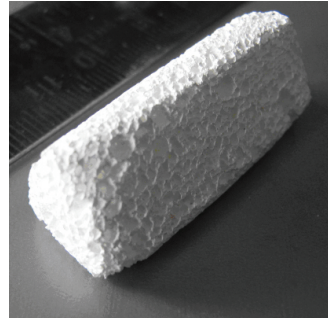


WHAT MATTERS MOST IN BONE GRAFTING ?



India's 1st
FDA Approved
Orthopaedic Implant
Manufacturing Facility

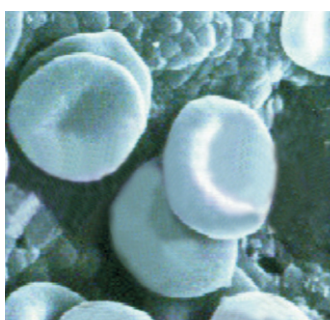


Biocompatible



Osteoconductive

- Spinal Fusion
- Vertebral Fracture



Non-Immunogenic

- Bone Void Filler
- Tibial Plateau Fracture
- Distal Radial Fracture
- Calcaneus Fracture

Indications

Surgeon's choice
and our pride



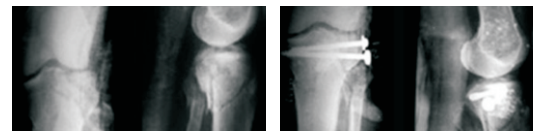
Providing that matters in Bone Grafting

Biocompatible

Over 500 patients have received B-OstIN implantation with minimum 12 months follow-up and no adverse effects

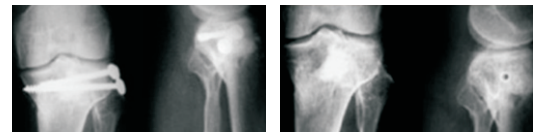
- ~ 100% phase purity of B-OstIN with trace elements in limits
- ~ Confirmed by in vitro and in vivo studies
- ~ International publications on human use for Tibia Plateau and Craniotomy

Reference : K. V. Menon, H. K. Verma, Radiological outcome of Tibial Plateau treated with percutaneously introduced synthetic porous Hydroxyapatite granule, European Journal of Orthopaedic & Traumatology - Volume 15, August 2005, Page 205 - 213.



The Fracture

Immediate Post Operative



Follow up 6 months
(well healed fracture)

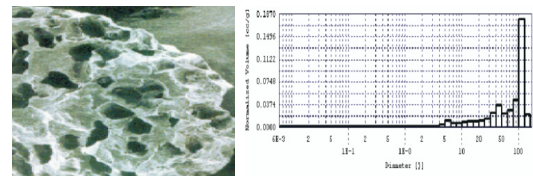
Follow up 1 year Granule are still visible but bone granule boundary is indistinct

B-OstIN clinical study on Tibial Plateau Fracture

Osteoconductive

B-OstIN is MOST osteoconductive material which helps in bone bonding within 3 months, fastest of all ceramic constituents

- ~ Ca/P ratio similar to that of human bone
- ~ Crystalline structure and morphology similar to natural bone
- ~ 60 - 70% porosity with pore size 100 - 300 um



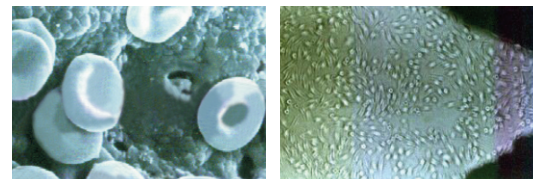
Open porosity 100X

Porosity Distribution graph

Non-Immunogenic

B-OstIN implant is surrounded by cellular infiltrate, which is predominantly fibroblastic

- ~ No lysis of red blood cells (RBC)
- ~ No cytotoxic effects on cells in contact with B-OstIN
- ~ No tissue necrosis
- ~ No toxic leachants post implantation of B-OstIN

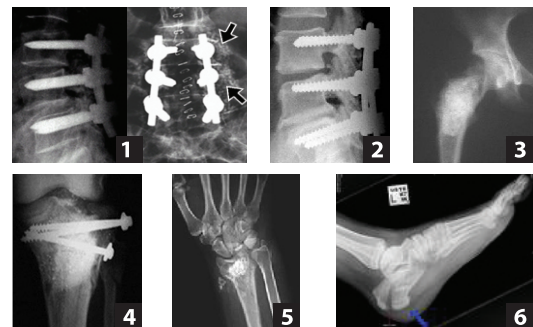


Intact RBC over B-OstIN after haemolysis test

No Cytotoxicity effect on contact with B-OstIN

Indications

- ~ Spinal Fusion*
- ~ Tibial Plateau Fracture
- ~ Vertebral Fracture*
- ~ Distal Radial Fracture
- ~ Bone Void Filler (Bone TB)
- ~ Calcaneus Fracture



* Mixing with autogeneous bone is recommended

Product Presentation

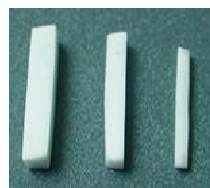
B-OstIN™
Granules

0.5mm to
6mm



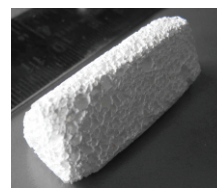
B-OstIN™
Rod

Dia 8mm to
14mm



B-OstIN™
Block

5mm, 12mm
and 20mm



All synthetic bone graft products have been developed with know - how from Sree Chitra Tirunal Institute for Medical Sciences and Technology, Thiruvananthapuram