



Biomatlante
Biologics Solutions

expert in bone regeneration

MBCP™

Technology

Micro/Macroporous Bone Graft

Synthetic Resorbable

Biphasic Calcium Phosphate

Bioactive

Osteoconductive

+ 30 years of clinical background



MBCP™ is a bioactive calcium phosphate ceramic composed of hydroxyapatite (HA) and Tricalcium Phosphate (TCP). MBCP™ is indicated to augment or substitute for bone graft in nonloadbearing clinical applications and is supplied in both block and granular form.

The effectiveness of MBCP™ has been critically evaluated in a large prospective randomized study involving 341 patients undergoing posterior spinal fusion with associated instrumentation¹. The performance of MBCP™ was characterized by:

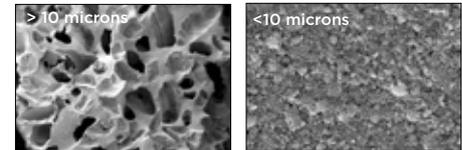
- Equivalent clinical outcome to autologous bone graft
- Fewer spinal wound healing problems than autologous grafts
- avoidance of donor site pain and infections
- No allergic reactions

MBCP™ has also been used successfully in other clinical situations, such as the filling of pathogenic or mastoid cavity bone defects^{2,3}, and to replace bone in the treatment of long-bone fractures⁴.

<p>Dimensions 5x5x10 5x5x20 10x10x10 12x25x25 10x20x50 10x10x40 10x30x30</p> 	<p>Vials 2cc to 30cc Size : 1-2mm & 2-3mm</p> 	<p>Syringe 5cc - 10cc Size : 1-2mm</p> 
<p>Dimensions 5 to 12mm</p> 	<p>Provides a favorable scaffolding for the stimulation and growth of new bone, and gradual incorporation into the fusion mass</p>	

Biological fluids seep through micropores, and become enriched with calcium and phosphate ions which are released during dissolution of TCP

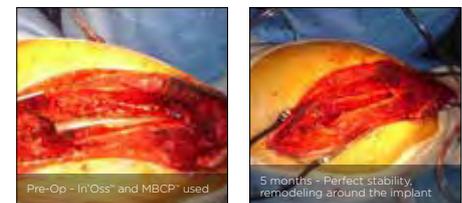
Macropores and Micropores



Macropores, which are a network of interconnected spaces and allow the biological infiltration and cellular colonization by osteoblasts and osteoclasts

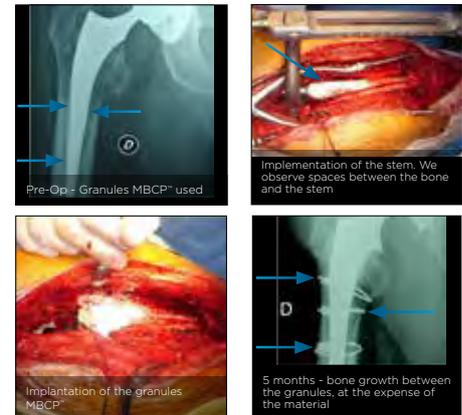
Micropores which are the intercrystalline spaces where dissolution and recrystallisation take place

Recovery of uncemented femoral stem



André Pierre Uzel M.D., orthopedic surgeon, CHU Pointe à Pitre, Guadeloupe

Femoral osteotomy



André Pierre Uzel M.D., orthopedic surgeon, CHU Pointe à Pitre, Guadeloupe

Tibial osteotomy



Dr. Gouin, 2001

KEY FEATURES

KEY BENEFITS

Osteoconductive	Provides a scaffold for new bone growth
Molecular mixture of: 60% HA and 40% TCP	HA alone resorbs too slowly while TCP resorbs too fast. A bi-phasic of HA and TCP allows the resorption rate to be similar to that human bone
70% porosity, interconnected network of macropores and micropores	Porosity, similar to that of cancellous bone, allows the colonization of bone cells and biological fluid uniformly inside the matrix
Microporosity (<10 microns)	For ionic exchange: TCP dissolution and bony crystal precipitation. Newly bioactive interface with bony cells
Macroporosity (>10 microns)	Allows deep invasion of bone cells into the matrix
+30 years of clinical experience	Host bone formation is well demonstrated time after time
Safe	5 years shelf life - Fully synthetic
Convenient	Available in granules, blocks, sticks for different indications

1. A.O. Ransford et al., "Synthetic porous ceramic compared with autograft in scoliosis surgery. A prospective, randomized study of 341 patients." J Bone Joint Surg Br, 1998. 80(1): 13-8.

2. F. Gouin, J. Delecrin, N. Passuti, S. Touchais, P. Poirier, J. Bainvel "Biphasic macroporous calcium phosphate ceramic bone substitute for filling bone defects: A report of 23 cases." Revue de Chirurgie Orthopedique: 81; 59-65 (1995).

3. G. Daculsi, P. Corlieu, M. D'Arc, M. Gersdorff "Macroporous biphasic calcium phosphate efficiency in mastoid cavity obliteration: experimental and clinical findings." Annals of Otolaryngology, Rhinology & Laryngology: 101 (8); 669-674 (1992).

4. G. Daculsi, N. Passuti, S. Martin, C. Deudon, R. Legeros, S. Raheer "Macroporous calcium phosphate ceramic for long bone surgery in humans and dogs. Clinical and histological study." Journal of Biomedical Materials Research: 24; 379-396 (1990).

5. G. Daculsi, F. Jegoux, an P. Layrolle (2009). «The micro macroporous biphasic calcium phosphate concept for bone reconstruction and tissue engineering». Advanced Biomaterials: Fundamentals, Processing, and Application, B. Basu, et al., J. Wiley and sons Inc., pp 101-141

Manufacturer
Biomatlante
ZA Les Quatre Nations
5 Rue Edouard Belin
44360 Vigneux de Bretagne - France

www.biomatlante.com

ISO 13485

Read the instructions for use

CE 0123

Distributed by: