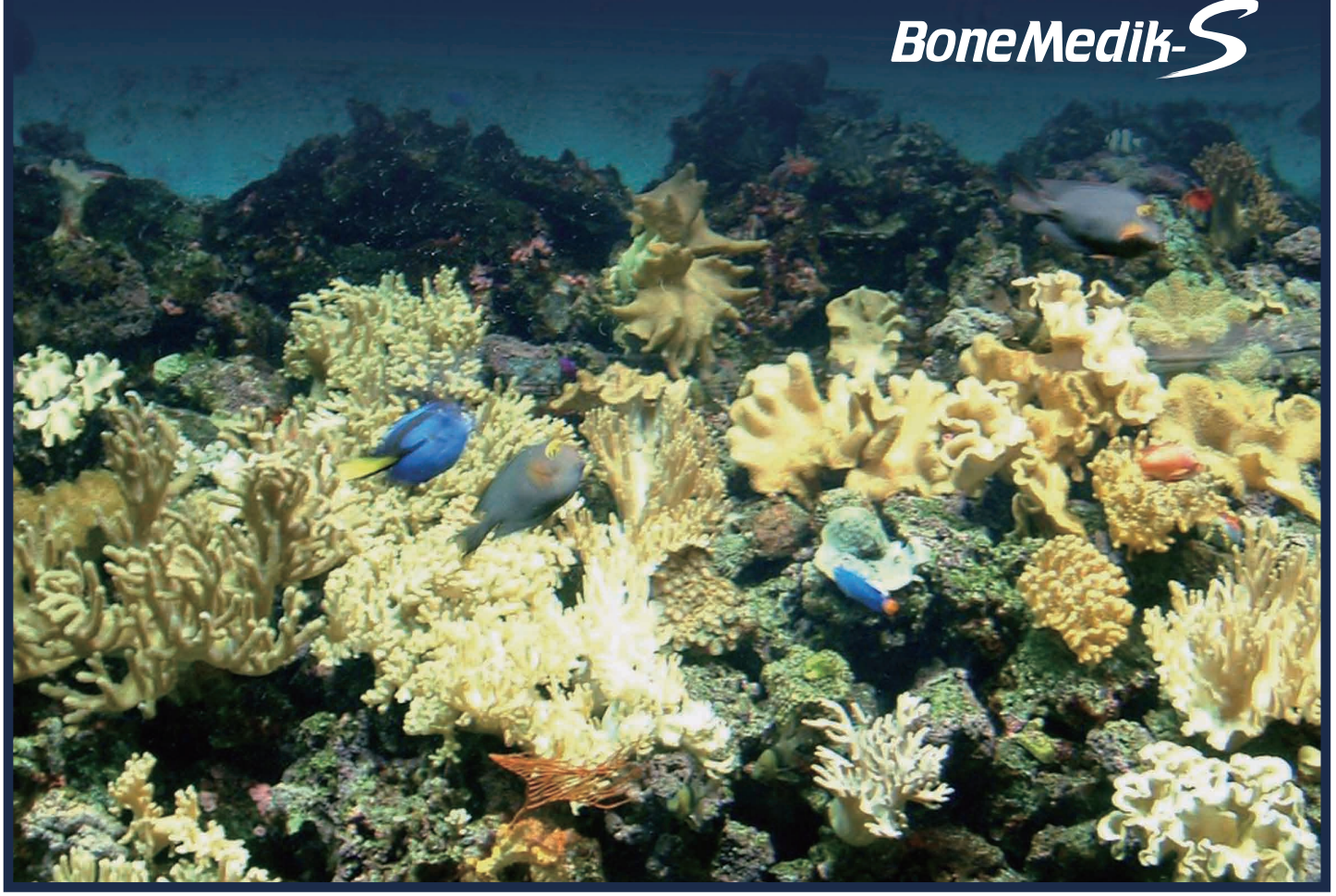
META® BIOMED

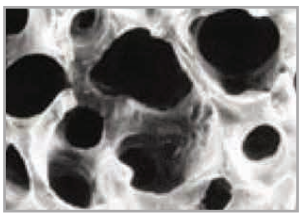
A Dream of Natural Healing...

Experience the Upgraded Coralline Bone Graft Substitute

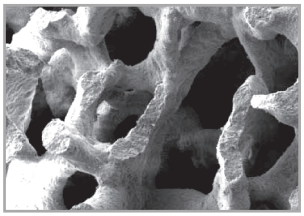
BoneMedik
BoneMedik-S



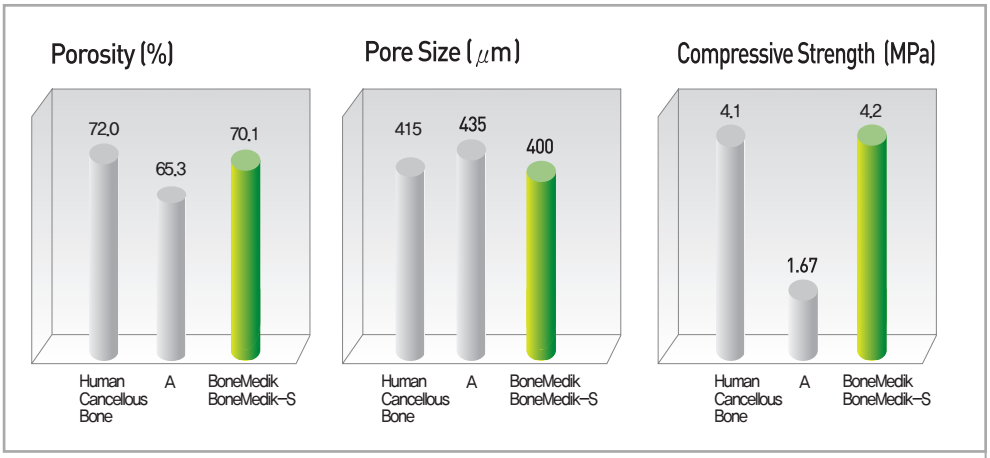
Coralline Hydroxyapatite Bone Graft Substitute



▶ Human Cancellous Bone



▶ BoneMedik & BoneMedik-S



Advantages

- No Biological Rejection, No Disease Transmission
- No Additional Surgery Necessary to Collect the Bone for Grafting
- Offer an Interconnected Porosity Similar to Human Cancellous Bone
- Provide a Framework Which the Host Bone can Regenerate & Heal
- USA- Patented Silicon Ion Containing HA Speeds Up the Bone Regeneration (Si-Content : Avg. 0.6wt%)
- Under Strict FDA Regulations & GMP Compliance, Ensuring the Highest Product Quality

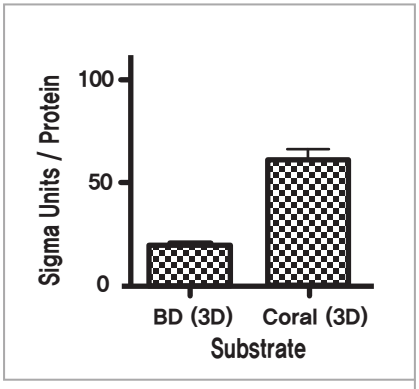
BoneMedik & BoneMedik-S are biocompatible bone graft based on natural coral by a chemical process which converts the coral to hydroxyapatite (HA) and silicon ion containing hydroxyapatite (Si-HA).

The human bone-like structure remains intact, providing an ideal matrix through which new bone tissue can grow.

The advantage of BoneMedik-S is the same with BoneMedik. Moreover, a porous silicon ion containing hydroxyapatite (Si-HA) speeds up the bone growth faster and the strength is better than any other similar products.

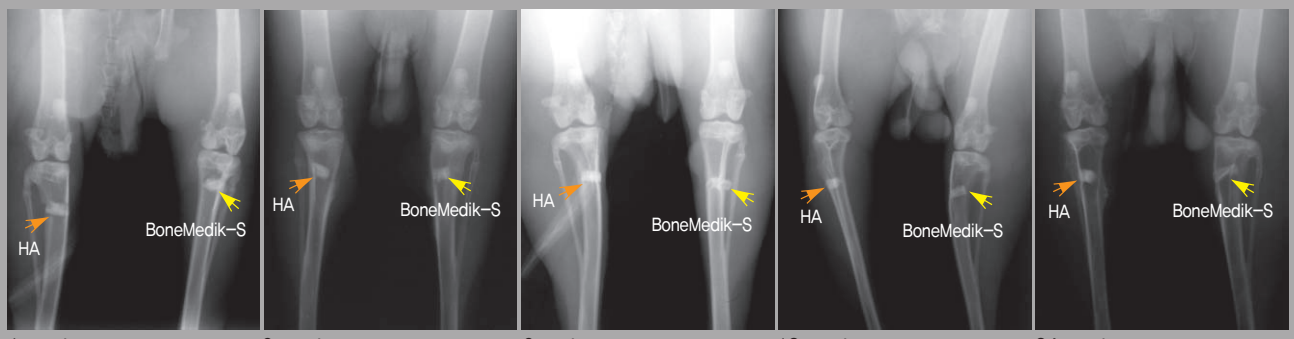
AP Activity

〈Alkaline Phosphatase〉



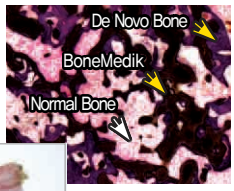
This figure shows alkaline phosphatase (AP) activity in human mesenchymal stem cells cultured on BD and BoneMedik.
AP is an enzyme whose activity reflects differentiation of human mesenchymal stem cells to bone forming osteoblastic cells.
Higher AP activity means the human mesenchymal stem cells are differentiating towards the bone forming osteoblast phenotype to a greater degree.
Cells were cultured on calcium phosphate scaffold, Catalog No. 354617 (BD), BoneMedik scaffold (Coral).
The fact that AP is higher in human mesenchymal stem cells on BoneMedik (coral) than in human mesenchymal cells on BD suggest that cell on BoneMedik are better able to form bone than cells on BD.
These pre clinical data suggest BoneMedik might be superior to other scaffolds in stimulating bone growth.
(Pre-study in Penn State Hershey Milton. S. Medical Center in PA, USA / META R&D Institute, KOREA. 2009)

BoneMedik-S is a patented Silicon ion containing Hydroxyapatite Bone Graft Substitute.(Patent No. : US 7,008,450)



1 week > 3 week > 6week > 12 week > 24 week >

Micro Observation (HA)

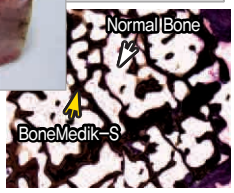


Eye Observation (HA)

1 week > 3 week > 6week > 12 week > 24 week >

Eye Observation (Si-HA)

1 week > 3 week > 6week > 12 week > 24 week >

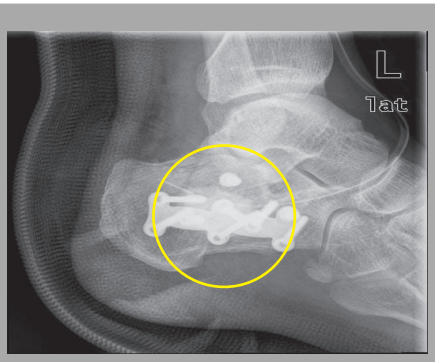


Micro Observation (Si-HA)

Orthopaedic Case

Case 1 Calcaneus Fracture

Post-Operation

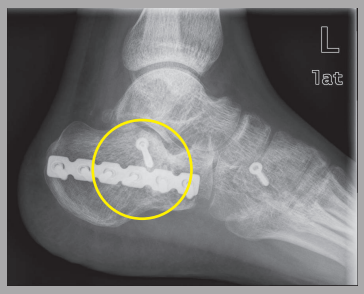


관혈적 정복 및 금속판과 나사를 이용한 내고정술이 시행되었고,
관절면 하부의 심한 골결손부(원호 표시부)는 BoneMedik을 이용해
충진해 주었습니다.

Kim.(M/25)
Fall from height injury (4 meter)
Calcaneus Fracture
- by courtesy of M.D.,Ph.D. Kim.Y.M
(Prof., C.B. National University, 2008)

金 O O (男 / 25歲)
추락사고 (墜落事故)로 인한 종골 골절 (踵骨 骨折)

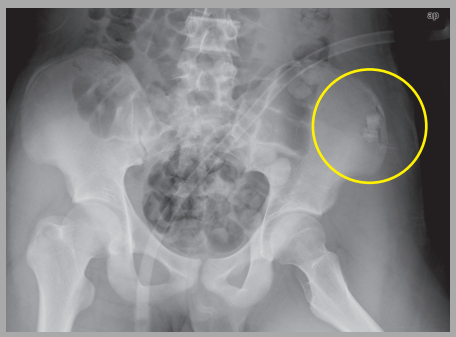
6 months later



수술후 6개월째. 완전한 골유합을 보여주고 있으며
충진된 BoneMedik과 주변 골조직과의 경계가
희미해지면서 서서히 흡수되고 있는 것으로
사료됩니다.

Case 2 Reconstruction of iliac Crest Bone Graft Donor Sites

Post-Operation

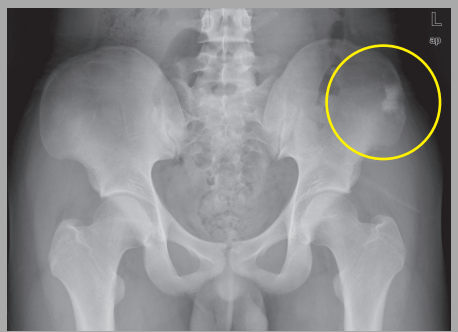


수지 및 족지 연장술을 위해 좌측 골반에서 골편 채취가
이루어졌으며 이로 인한 골결손부는 BoneMedik을 이용해
충진해 주었습니다.

Lee.(M/16)
Bone harvest from iliac bone (pelvis)
- by courtesy of M.D.,Ph.D. Kim.Y.M
(Prof., C.B. National University, 2008)

李 O O (男 / 16歲)
단중수증 (短中手症) / 중족골 단지증 (中足骨 短指症)
장골 이식술 (腸骨 移植術)

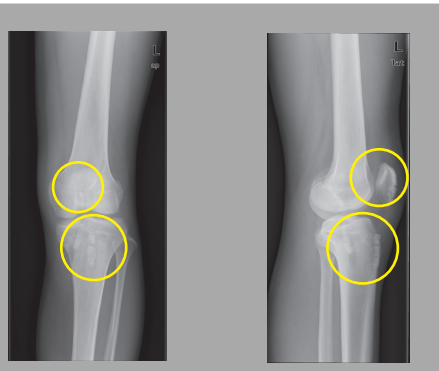
1 year later



수술후 1년째. 충진된 BoneMedik과 주변 골조직과의 경계가
희미해지면서 서서히 흡수되고 있는 것으로 사료됩니다.

Case 3 Bone Graft to Femoral & Tibial tunnel

Post-Operation

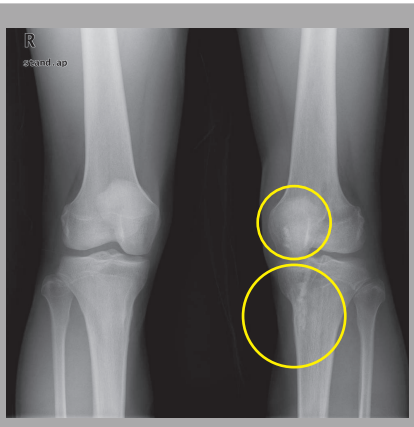


슬개골 및 경골 결절부에서 이식물 채취가 이루어졌으며 이로 인한
골결손부는 BoneMedik을 이용해 충진해 주었습니다.

Lee.(M/21)
Anterior cruciate ligament reconstruction
Bone harvest from patella bone
Bone graft to femoral & tibial tunnel
- by courtesy of M.D.,Ph.D. Kim.Y.M
(Prof., C.B. National University, 2008)

李 O O (男 / 21歲)
전방십자인대재건술 (前方十字靭帶再建術)
슬개골 / 경골 이식술 (膝蓋骨 / 脛骨 移植術)
대퇴골 / 경골 터널 충전 (大腿骨 / 脛骨 터널 充塡)

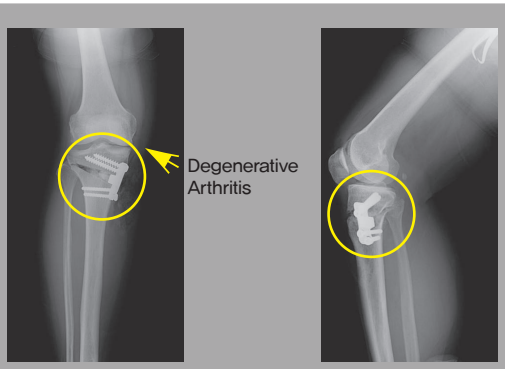
1 year later



수술후 1년째. 완전한 골유합을 보여주고 있으며
충진된 BoneMedik과 주변 골조직과의 경계가 희미해지면서
서서히 흡수되고 있는 것으로 사료됩니다.

Case 4 Upper Tibial Osteotomy for Degenerative Arthritis

Post-Operation

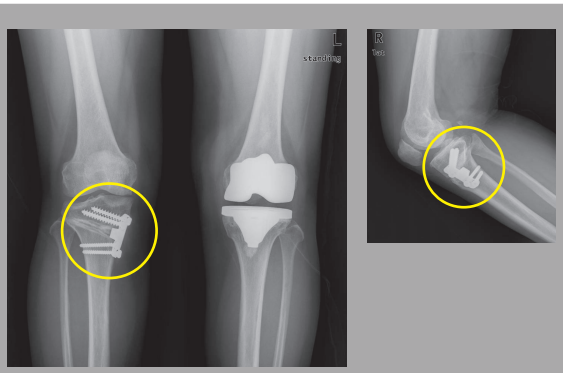


근위경골부 절골술 및 금속판과 나사를 이용한 내고정술이 시행되었고,
절골부의 골결손은 BoneMedik을 이용해 충진해 주었습니다.

Yoo.(F/49)
Knee joint degenerative arthritis
High tibial osteotomy
- by courtesy of M.D.,Ph.D. Kim.Y.M
(Prof., C.B. National University, 2008)

柳 O O (女 / 49歲)
무릎 퇴행성 관절염 (退行性 關節炎)
근위경골 절골술 (近位脛骨 切骨術)

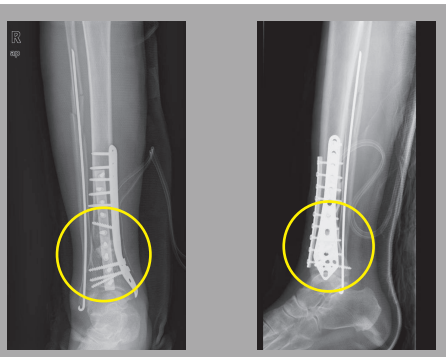
8 months later



수술후 8개월째. 양호한 골유합이 진행되고 있으며
충진된 BoneMedik과 주변 골조직과의 경계가 희미해지면서
서서히 흡수되고 있는 것으로 사료됩니다.

Case 5 Distal Tibia Fracture

Post-Operation

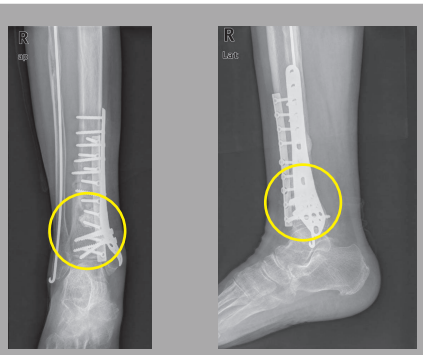


관혈적 정복 및 금속판과 나사를 이용한 내고정술이 시행되었고,
골절부의 심한 골결손(원호 표시부)은 BoneMmedik을 이용해 충진해 주었습니다.

Kim.(F/72)
Pedestrian traffic accident
Distal tibia Fracture
- by courtesy of M.D.,Ph.D. Kim.Y.M
(Prof., C.B. National University, 2008)

金 O O (女 / 72歲)
교통사고 (交通事故)로 인한 원위부 경골 골절
(遠位部 脛骨 骨折)

1 year later

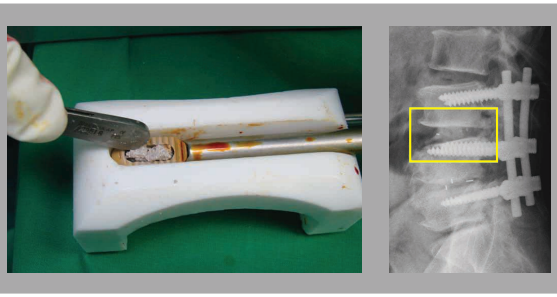


수술후 1년째. 완전한 골유합을 보여주고 있으며 충진된
BoneMedik과 주변 골조직과의 경계가 희미해지면서 서서히
흡수되고 있는 것으로 사료됩니다.

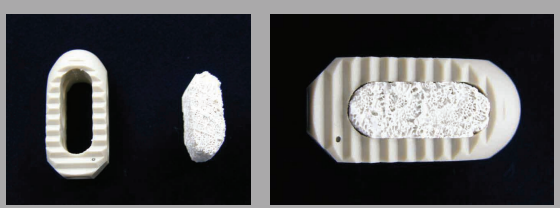
Neurosurgery Case

Case 1 Lumbar Posterolateral Fusion

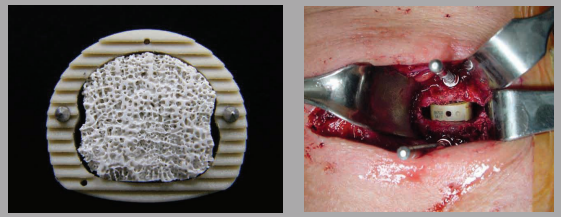
Case 2 Lumbar Interbody Cage



Case 3 PLIF with Cylindrical Cage

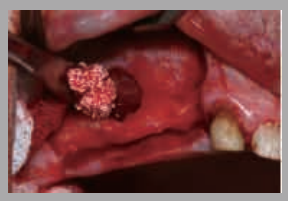
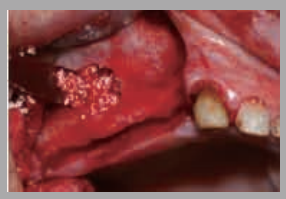


Case 4 ACDF with Cervical Cage

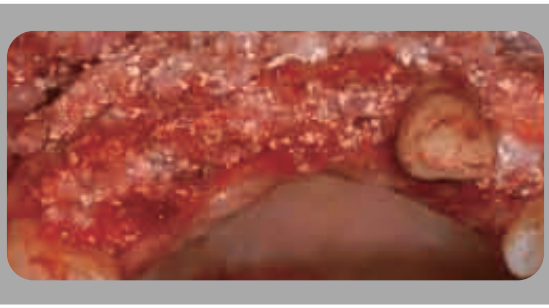


Dental Case

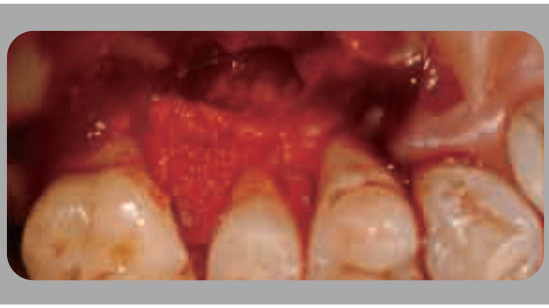
Sinus Bone Grafting


Ridge Split



Periodontal Pocket



Specifications

Chip Type	Block Type	Wedge Type	Cage Type
	 (10×10×10)mm (10×10×40)mm  (5×12×40)mm (10×20×50)mm  (12×25×25)mm (12×30×30)mm	   	   

Chip Size	Volume
0.5 ~ 1mm	1cc, 3cc, 5cc, 10cc, 15cc, 20cc, 30cc
1 ~ 2mm	
2 ~ 4mm	
4 ~ 6mm	
6 ~ 8mm	

META® BIOMED

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Diamond Quality • Gold Service • Silver Price

METABIOMED CO.,LTD.

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