



BioFuse® Pro

Osteo Viable Matrix

Performance
Driven

Healthier Cells **X** Improved Handling **X** Fast Preparation Time

Exponential Impact

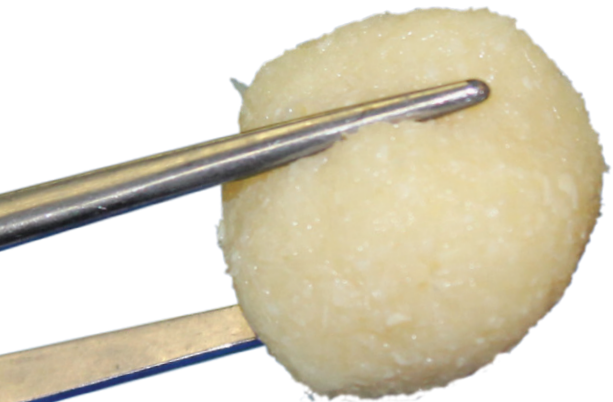
EXTREMITY®
MEDICAL

Real change *starts* here™

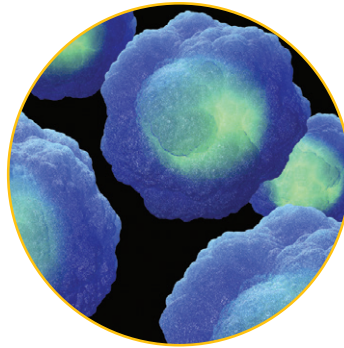
BioFuse[®] Pro

Osteo Viable Matrix

Delivers A Complete Bone Formation Solution
for Challenging Patient Conditions



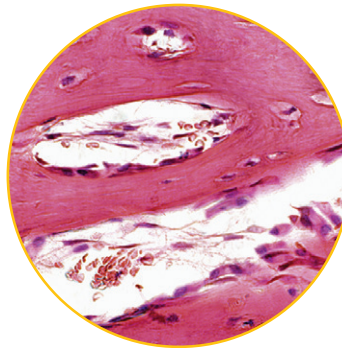
**Advanced Processing
Methods for Cellular
Health Preservation**



Increased Osteogenesis

807k Viable Cells/cc Contains
Mesenchymal Stem Cells,
Osteoprogenitor Cells¹,
and Osteoblasts

- 1.6x faster rate of proliferation



Enhanced Osteoinductivity

Increased volume of bone
signaling factors for
cell signaling



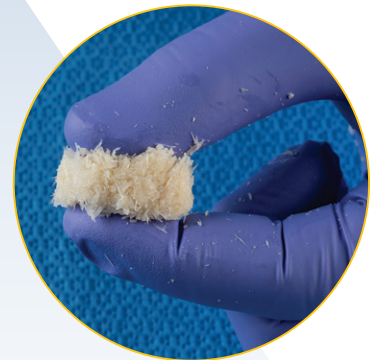
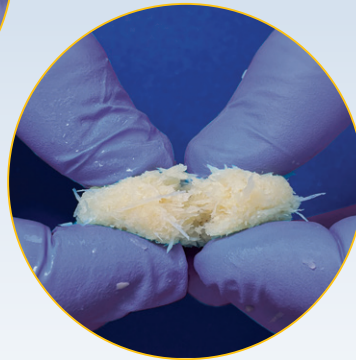
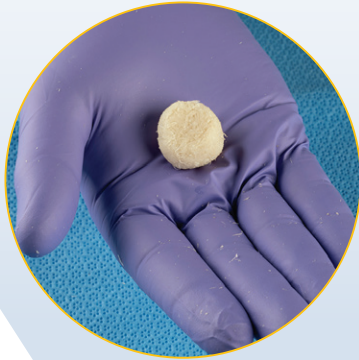
Unique Osteoconductivity

Proprietary processing produces unique
scaffold that unlocks higher levels of
bone formation factors.

¹ Extensive invitro testing of manufactured lots (n=20) demonstrated an average of just over 807k cells/cc.

Real change **starts** here™

Fast Preparation Time, with Predictable Handling Characteristics



5-15 Minutes
Preparation to Implant



Thaw and preparation takes as little as 5-15 minutes, with no decanting required.

Advanced Processing Technology
delivers enhanced handling characteristics, providing confidence and predictability in molding, shaping, and pre-packing.

Ordering Information **BioFuse® Pro Osteo Viable Matrix**

Part #	Description
145-90001	BioFuse Pro Osteo Viable Matrix 1cc
145-90002	BioFuse Pro Osteo Viable Matrix 2cc
145-90005	BioFuse Pro Osteo Viable Matrix 5cc
145-90010	BioFuse Pro Osteo Viable Matrix 10cc
145-90015	BioFuse Pro Osteo Viable Matrix 15cc

Next generation viable bone matrix provides a healthier matrix of preserved cells, bioactive growth factors and scaffold necessary for bone regeneration—Osteogenesis, Osteoinductivity, and Osteoconductivity.



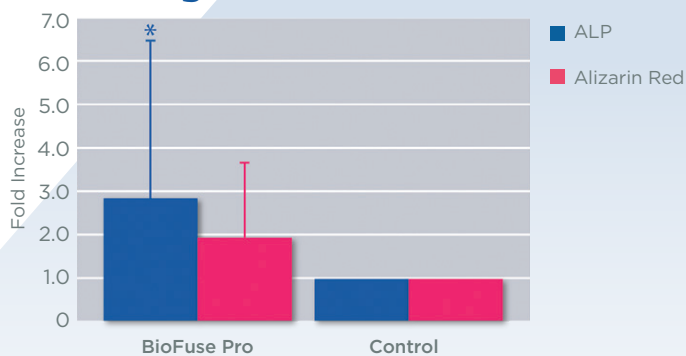
Increased Osteogenesis

Proprietary Processing Delivers Decreased Exposure to Harmful Stressors

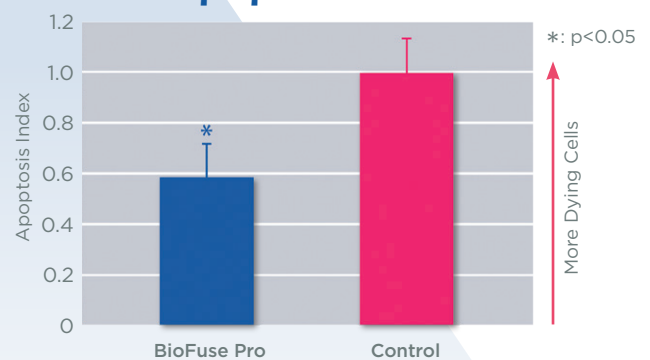
More Metabolically Active Live Cells

- 40-50% Reduced Apoptosis (Programmed Cell Death)
- 807k viable cells/cc (100% Mesenchymal Stem Cells and/or Osteoprogenitor Cells)
- 1.6x faster rate of cell proliferation

Greater Osteogenic Potential²



Less Apoptotic Cells²



Alkaline phosphatase (ALP) staining

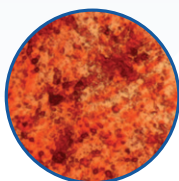


BioFuse Pro

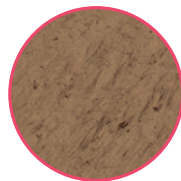


Control

Alizarin red staining



BioFuse Pro

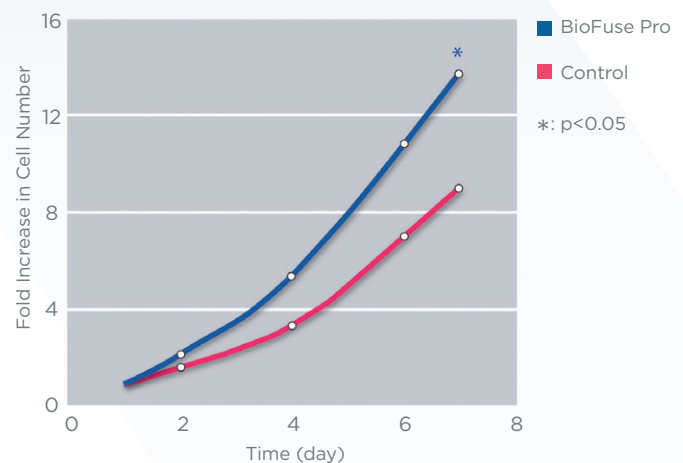


Control

ALP: Marker of initial bone mineralization.

Alizarin red staining: Detecting calcium content of bone minerals.

Increased Cell Metabolic Activity²



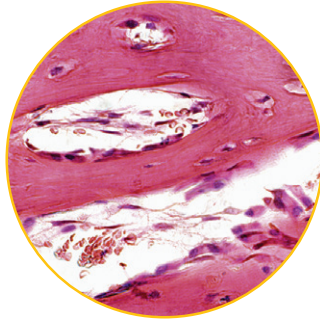
1.6x faster rate of cell proliferation

Proprietary processing delivers unique scaffold that unlocks higher levels of bone formation factors for enhanced **osteconductivity** and **osteinductivity**



Osteoconductivity

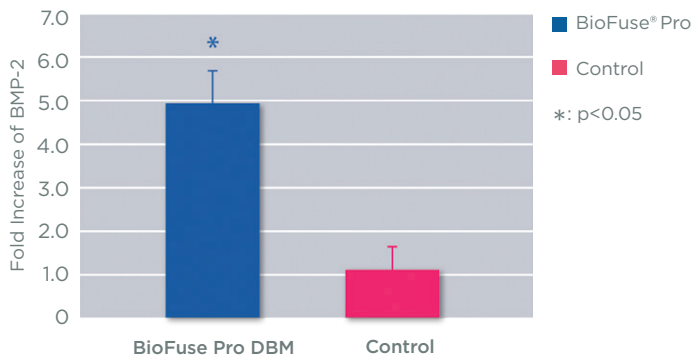
- Cortical bone is demineralized to a level that safely exposes more growth factors
- Growth factors are more bioavailable; they are protected by the matrix, without being trapped in the matrix
- Cancellous composition with added DBM Fibers



Enhanced Osteoinductivity

- Higher amounts of BMP-2

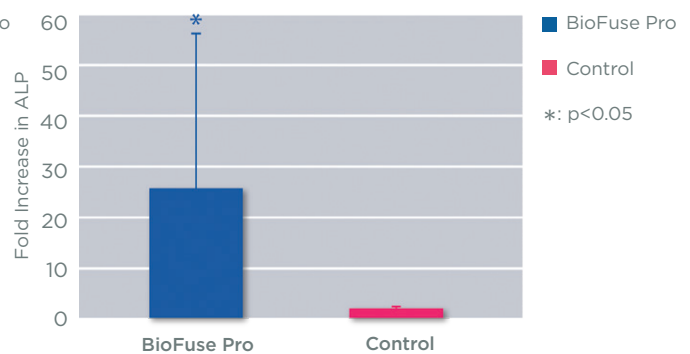
Higher Yield of BMP-2²



BMP-2: An essential growth factor for osteoblast differentiation and thus initiation of bone formation.

BioFuse Pro: Yields 5-fold higher BMP-2 than the control.

Greater Osteoinductivity Potential²



Osteoinductivity: A potential of biomolecules in inducing cell differentiation to osteoblast lineage.

ALP production: A measure of osteoinductivity of the bone growth factors, specifically BMP-2.

BioFuse® Pro

Osteo Viable Matrix

Delivering
a smarter approach in viable biologics
Period.

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MEDICAL

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