

# Optium® DBM

## Putty



Optium® DBM Putty is designed to set the standard for safety, quality, and performance in DBM technology.

Brand	<ul style="list-style-type: none"> <li>Optium® DBM</li> </ul>
Clinical Applications	<ul style="list-style-type: none"> <li>Joint Reconstruction and Revision</li> <li>Trauma</li> <li>Spine</li> </ul>
Features And Benefits	<ul style="list-style-type: none"> <li><b>Osteoinductive Potential:</b> Optium DBM is demineralized using LifeNet Health's patented and proprietary PAD® process. This process carefully exposes natural growth factors trapped within cortical bone while maintaining its inherent osteoinductive potential.</li> <li>PAD technology targets LifeNet Health's patented residual calcium levels of 1% to 4%, levels scientifically proven to provide the optimal osteoinductive potential in demineralized bone (DBM)<sup>1,2,3,4</sup>.</li> <li><b>Osteoinductive Testing:</b> Every lot of final product is tested for osteoinductive potential using the gold standard nude rodent assay developed by Marshal Urist.</li> <li><b>Osteoconductive:</b> Fibers provide a natural architecture with increased surface area to encourage cellular attachment.</li> <li><b>Sterile:</b> Optium DBM is sterilized using proprietary and patented Allowash XG® technology. This technology provides a sterility assurance level of 10<sup>-6</sup>, without compromising the graft's inherent osteoconductivity or osteoinductive potential.</li> <li><b>Proven Carrier:</b> Optium's carrier is glycerol. DBMs using glycerol as a carrier have extensive, published clinical history and have proven safe and effective in bone void filling applications<sup>5-13</sup>.</li> <li><b>Ready to Use:</b> No need to waste time in the OR preparing the product.</li> <li><b>Multiple Sizing Options:</b> Available in different volumes to accommodate a variety of clinical indications.</li> </ul>



# Optium® DBM

## Putty



### OPTIUM DBM PUTTY

Code	Description	Volume
TPUT01	Putty (DBM Fibers & Glycerol)	1 cc
TPUT02	Putty (DBM Fibers & Glycerol)	2.5 cc
TPUT05	Putty (DBM Fibers & Glycerol)	5 cc
TPUT10	Putty (DBM Fibers & Glycerol)	10 cc

#### References:

1. Effect(s) of the demineralization process on the osteoinductivity of demineralized bone matrix Zhang M, Powers R M, and Wolfinbarger L. J Periodontol 1997; 68:1085-1092
2. The affects of residual calcium in decalcified freeze-dried bone allograft in a critical-sized defect in the Rattus norvegicus calvarium Turonis JW, McPherson JC 3rd, Cuening MF. J Oral Implantol. 2006;32(2):55-62
3. Effects of Varying degrees of Allograft Decalcification on the Cultured Porcine Osteoclast cells Herold RW, Pashley DH, Cuening MF J Periodontol. 2002 Feb; 73(2):213-9
4. Enhancement of osteoblast proliferation in vitro by selective enrichment of demineralized freeze-dried bone allograft with specific growth factors Mott DA., Mailhot J, Cuenin MF, Sharawy M, Borke J. J Oral Implantol 2002;28(2):57-66
5. Cammisa FP, Jr., Lowery G, Garfin SR, et al. Two-Year Fusion Rate Equivalency Between Grafton® DBM Gel and Autograft in Posterolateral Spine Fusion. Spine 2004;29:660-629.
6. Kang J, An H, Hilibrand A, Yoon ST, Kavanagh E, Boden S. Grafton and local bone have comparable outcomes to iliac crest bone in instrumented single-level lumbar fusions. Spine (Phila Pa 1976);37(12):1083-91
7. Park HW, Lee JK, Moon SJ, Seo SK, Lee JH, Kim SH. The efficacy of the synthetic interbody cage and Grafton for anterior cervical fusion. Spine (Phila Pa 1976). 2009;34(17):E591-5
8. Sassard WR, Eidman DK, Gray PM, et al. Augmenting local bone with Grafton demineralized bone matrix for posterolateral lumbar spine fusion: avoiding second site autologous bone harvest. Orthopedics 2000;23:1059-64; discussion 64-5.
9. Thalgott JS, Giuffre JM, Fritts K, Timlin M, Klezl Z. Instrumented posterolateral lumbar fusion using coralline hydroxyapatite with or without demineralized bone matrix, as an adjunct to autologous bone. Spine J. 2001;1(2):131-7
10. Weinzapfel B, Son-Hing JP, Armstrong DG, et al. Fusion Rates After Thoracoscopic Release and Bone Graft Substitutes in Idiopathic Scoliosis Spine 2008;33:1079-1083.
11. Hamadouche M, Karoubi M, Dumaine V, Courpied J. The use of fibre-based demineralised bone matrix in major acetabular reconstruction: surgical technique and reconstruction results. Int Orthop. 2011;35:283-288
12. Pieske O, Wittmann A, Zaspel J, et al. Autologous bone graft versus demineralized bone matrix in internal fixation of long bones. J Trauma Manag Outcomes, 2009;3:11
13. Thordarson DB, Kuehn S. Use of demineralized bone matrix in ankle/hindfoot fusion. Foot Ankle Int. 2003;24(7):557-60

1864 Concert Drive  
Virginia Beach, VA 23453  
757-464-4761 x2000  
Fax: 757-464-6439

[www.LifeNetHealth.org](http://www.LifeNetHealth.org)

The LifeNet Health logo, Optium, PAD and Allowash XG are registered trademarks of LifeNet Health. ©2015 LifeNet Health, Virginia Beach, VA. All rights reserved.  
68-40-150-01.01

