Osteopore®

DENTAL

Osteoplug®

Alveolar Ridge and Socket Preservation

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1 BIOMIMETIC

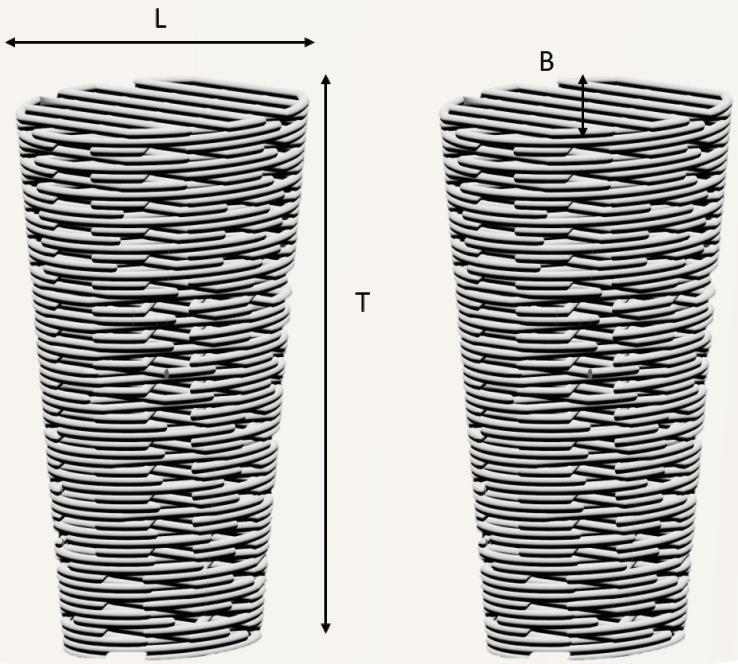
Osteoplug® is a conical shape 3D printed polycaprolactone (PCL) bioresorbable scaffold for fresh dental extraction sockets that has been proven to eliminate or limit the negative effect of post extraction bone resorption[1]. Its lattice structure with interconnected triangles of regular porous morphology promotes osteoblast formation within the socket which helps to facilitate natural bone healing[2,3] and maintain the contour of the dentoalveolar ridge for future dental implant placement.

2 FEATURES & BENEFITS

Porosity of Osteoplug®

FEATURES	BENEFITS
Manufactured from PCL	• Bioresorbable, biocompatible, proven technology, and non-toxic.
100% synthetic	• No animal tissue concerns such as disease transmission or cross reaction.
Predictable resorption profile	• Bone remodeling takes place before complete degradation at 18 - 24 months[4,5].
User friendly	• Conical design mimic the anatomy of the dental root and have sizes. It can be cut using surgical scissors or blade to the desire width and length.
High Porosity	• The space between the micropore system supports a clot and allows space for development of subsequent new vessels for optimal fluid circulation.

3 PRODUCT SPECIFICATIONS



PRODUCT CODE	SIZE (L X B X T)/MM
PC21(7,5,15)	7 x 5 x 15
PC21(9,7,11)	9 x 7 x 11
PC21(9,7,15)	9 x 7 x 15

OTHER SIZES AVAILABLE:

LENGTH	**4 – 9**
BREADTH	**4 – 7**
THICKNESS	**9 – 15**

References

[1]Goh BT, Teh LY, Tan DB, Zhang Z, Teoh SH. Novel 3D polycaprolactone scaffold for ridge preservation – a pilot randomised controlled clinical trial. Clin Oral Implants Res. 2015 Mar;26(3):271-7. doi:10.1111/clr.12486. Epub 2014 Sep 27. PMID: 25263527.

[2]Teoh SH, Goh BT, Lim J. Three-Dimensional Printed Polycaprolactone Scaffolds for Bone Regeneration Success and Future Perspective. Tissue Eng Part A. 2019 Jul;25(13-14):931-935. doi:10.1089/ten.TEA.2019.0102. PMID: 31084409.

[3]Woodruff MA, Lange C, Reichert J, Berner A, Chen F, Fratzl P, Schantz JT, Hutmacher DW. Bone tissue engineering: from bench to bedside. Materials Today. Materials Today. 2012 Oct;15(10):430-435. doi:10.1016/S1369-7021(12)70194-3.

[4]Lam CX, Hutmacher DW, Schantz JT, Woodruff MA, Teoh SH. Evaluation of polycaprolactone scaffold degradation for 6 months in vitro and in vivo. J Biomed Mater Res A. 2009 Sep 1;90(3):906-19. doi:10.1002/jbm.a.32052. PMID: 18646204.

[5]Lam CX, Savalani MM, Teoh SH, Hutmacher DW. Dynamics of in vitro polymer degradation of polycaprolactone-based scaffolds: accelerated versus simulated physiological conditions. Biomed Mater. 2008 Sep;3(3):034108. doi: 10.1088/1748-6041/3/3/034108. Epub 2008 Aug 8. PMID: 18689929.

For professional use.
CAUTION: See instructions for use for full prescribing information, including indications, contraindications, warnings, and precautions.

MCN 04 012B XE Rev 0

Osteopore®
Empowering Natural Tissue Regeneration

Osteopore International | SINGAPORE
2 Tukang Innovation Grove #09-06, JTC MedTech Hub, Singapore 618305