

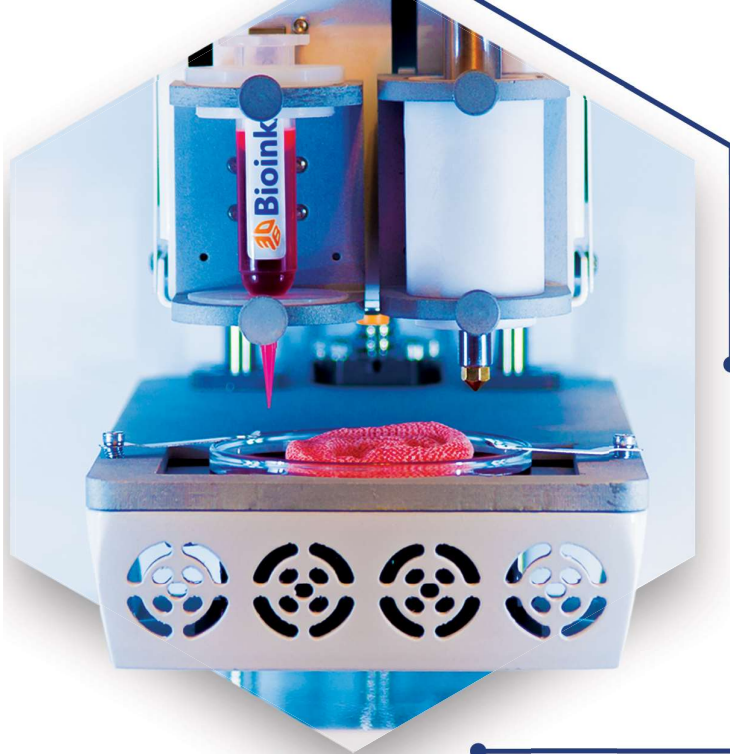


# ASBONE<sup>®</sup>

ABSORBABLE STRUCTURES FOR BONE REGENERATION

Print a Beautiful Smile

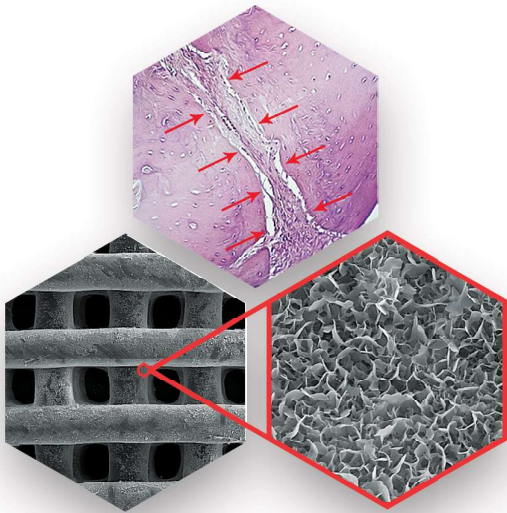




ASBONE<sup>®</sup>, comprising a team of engineers, biologist, chemists and physicians, has focused on designing, development and manufacturing of advanced bioprinters, bioinks and related technologies for years. The current approach of the company is to complete the chain of bioprinting by introducing novel bioprinted organs and tissues to meet the needs of patients.

## ASBONE<sup>®</sup> : Revolutionary Product

Craniomaxillofacial (CMF) defects give an urgent problem for patients due to the presence of a vital structure and the unique anatomy of deficits. The theory of tissue engineering can be used to design novel treatment strategies for the repair of critical bone defects. ASBONE<sup>®</sup> leverages more than four years of experience in bioprinting to present innovative biodegradable custom-made bone substitutes, called ASBONE<sup>®</sup> for CMF implantation.



ASBONE<sup>®</sup> is a series of absorbable bone implant, substitutes by patients' bone tissue and made from a composition of high-performance biomaterials. Great precision in printing desired shapes, excellent mechanical properties, enhanced bioactivity, and osteoconductivity make ASBONE<sup>®</sup> the best alternative for bone fillers, titanium meshes, and implants. Furthermore The rate of absorption can be tuned between four to twelve months.

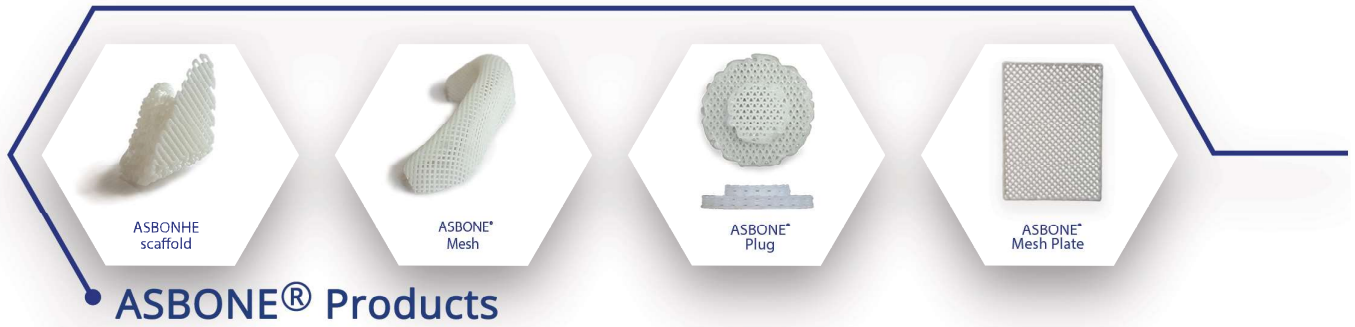
## ASBONE<sup>®</sup> Procedure

1  
  
 Defect Imaging

2  
  
 Implant Design

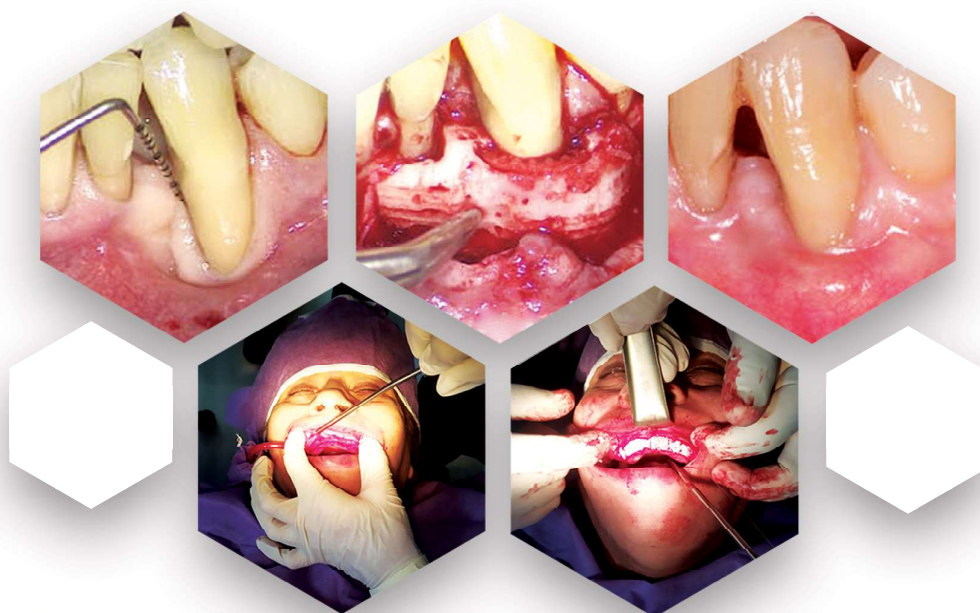
3  
  
 Bioprinting

4  
  
 Implantation



## Several Shapes and Applications

ASBONE® comes in four shapes to offer a comprehensive solution for CMF defects. ASBONE® Mesh plate is a flexible and easy to cut mesh comes in different size, pore shapes and various thickness. ASBONE® mesh can be used to stabilize bone grafts for treatment of orbital fractures, CMF reconstructions, and alveolar bone regeneration. In addition to make these operation easier and faster, ASBONE® offer patient-specific 3D pre-formed absorbable membranes, known as ASBONE® meshes. They provide space maintenance necessary for bone augmentation. Furthermore, ASBONE® Scaffolds are 3D bioprinted custom-made matrices to match the patient's bone defect. Consequently, Using ASBONE® Scaffolds helps to reduce the duration of surgery and needs of screws for fixation. Finally, ASBONE® Plug is the best option for covering Trephination Burr holes in neurosurgeries due to fast bone regeneration. can be used in a wide range of CMF reconstruction, sinus Augmentation, and Socket Preservation surgeries



## Specifications

-  Patient Specific and Fit to the Defect
-  Completely Sterile and Ready to Use
-  FDA & USP Approved Material Sources
-  Biocompatible, Biodegradable and Osteoconductive
-  Reduction in Time and Cost
-  Excellent Mechanical Properties
-  No Need for Screws and Fixations
-  No Revision Surgery





📍 Iranian Research Organization for Science  
and Technology, Tehran, Iran

🌐 [www.asbone3d.com](http://www.asbone3d.com) ☎ (+98)21 66550571