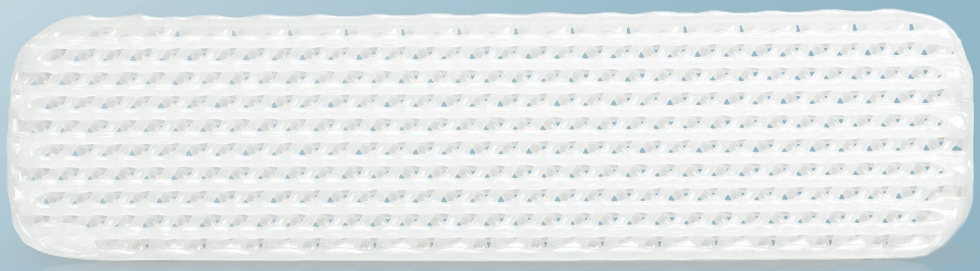
Osteomesh®

for Septal Extension Graft



Osteopore®

Osteomesh® for Septal Extension Graft

The incorporation of Osteomesh® strengthens the patient's septal extension graft. This bioresorbable scaffold provides good structural support to achieve long-term aesthetically pleasing nasal reconstruction outcome.

1 TISSUE ENGINEERING-BASED APPROACH

- Osteomesh® is an integrating implant for rhinoplasty, a viable alternative option for functional regeneration of tissues.
- It serves as additional support for weak or insufficient harvested graft, reducing the need for secondary cartilage harvesting surgery.[1]

2 BIODEGRABILITY AND BIOCOMPATIBLITY

- Polycaprolactone (PCL) is a biodegradable polymer that degrades in vivo by hydrolysis with a gradual resorption profile of 18 – 24 months.
- It possesses optimal resorption rate that maintains mechanical integrity during healing process, providing sufficient support for maintaining nose tip projection.
- It is a biocompatible material that minimizes adverse host implant reaction.

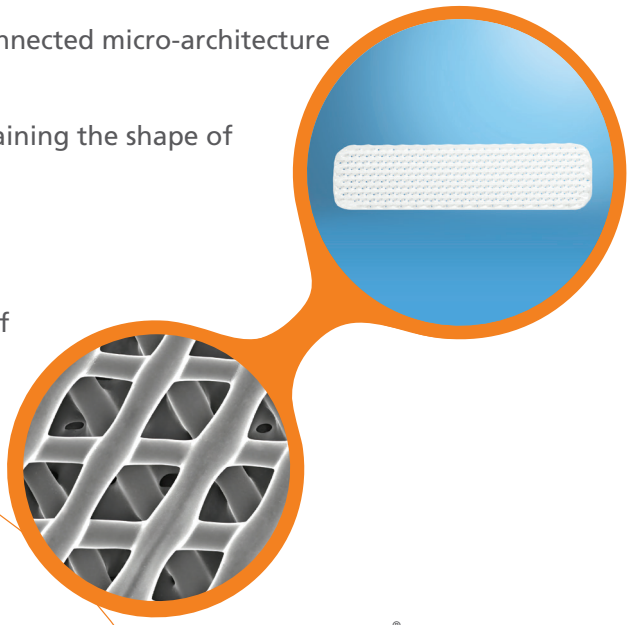
3 DESIGN

1. POROUS MICRO-ARCHITECTURE

- Osteomesh® is designed with a porous interconnected micro-architecture that facilitates tissue ingrowth.
- It is effective as a lengthy stanchion for maintaining the shape of the nose.[2]

2. SUTURE FRIENDLY

- The porous micro-architecture provides ease of securement to harvested or native cartilages with sutures.

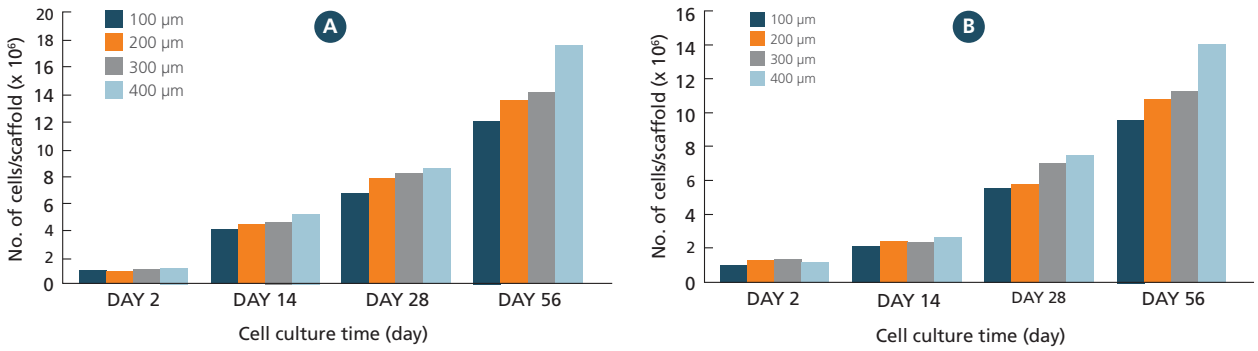


Porosity of Osteomesh®

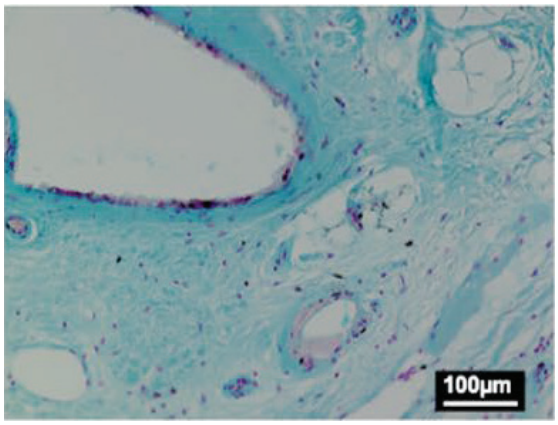
3. OPTIMAL SCAFFOLD PORE SIZE

- 400µm is a suitable pore size for chondroctyes and fibroblasts growth.[3]

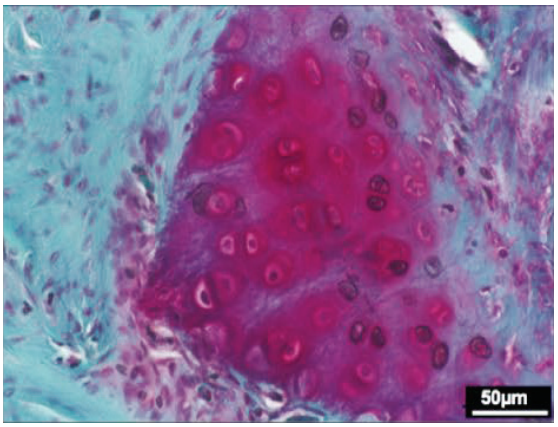
Cell counts for cell culture time[1]



- In a 6-month animal study, histological evidence confirms the presence of cartilaginous-like matrix (bright-red colour) forming around the PCL implant.[4]



Blue stain (Alcian Blue) showing GAG formation



Intense red stain (Safranin-O) showing GAG formation

4. EASE OF USE

- Osteomesh® can be molded easily and it is very easy to manipulate.
- It reduces the operation time and reoperation.

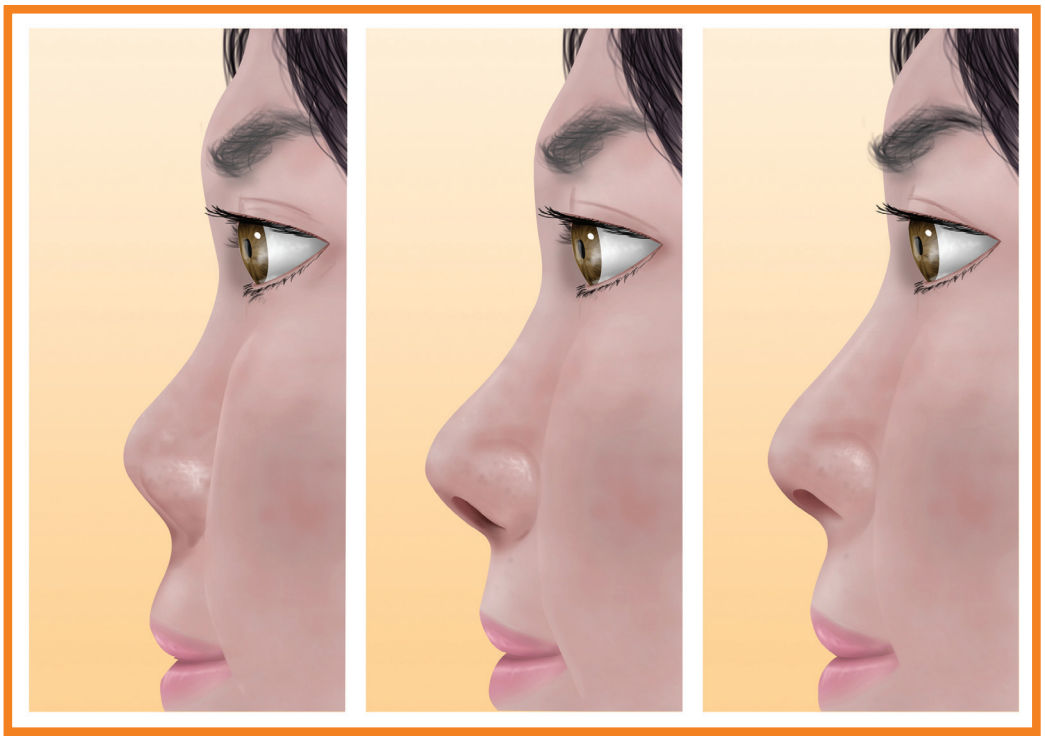
4 CLINICAL ADVANTAGE[1,2]

PATIENT'S PERSPECTIVE

- Low adverse reaction.
- Minimal long-term foreign body reaction.
- Good functional and aesthetic outcome.

CLINICAL OUTCOME

- Excellent patient satisfaction (90.7% - 96.7%)[1,2].
- Nasolabial angles were maintained for at least 1 year.

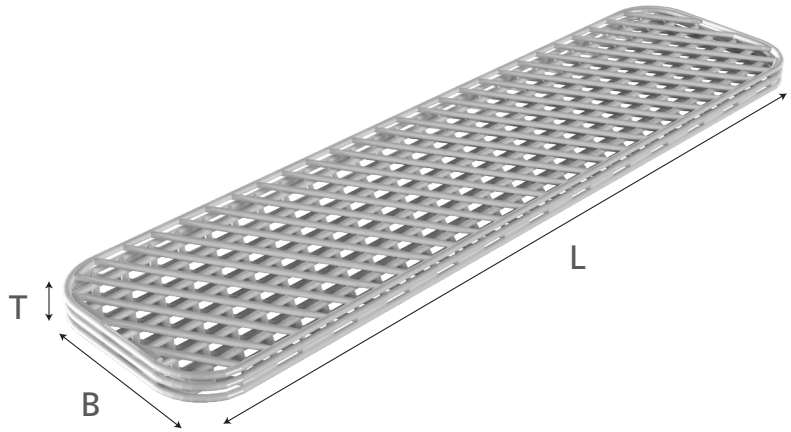


Pre-op nasolabial angle

Maintenance of nasolabial angle at 3 months

1 year post operation

5 PRODUCT SPECIFICATIONS



PRODUCT CODE	SIZE (L × B × T)/mm
PC12 (39,10,1)	39 x 10 x 1
PC12 (39,10,1.25)	39 x 10 x 1.25

Osteomesh® is fabricated in compliance with current Good Manufacturing Practice (cGMP, EN ISO 13485) and provided sterile (gamma irradiation, EN ISO 11137).

Recommended usage:
It serves as an auxiliary graft material. It would be best to ensure the nasal cartilages covers the Osteomesh® completely.

PLEASE NOTE:
This product may not be approved yet in your country. Product indications may also vary from country to country. Please check with our local representatives for more information.

Reference
1. Kim, S. H. & Choi, J. Y. Surgical outcomes and complications of septal extension graft supported by 3D printed polycaprolactone plate. Laryngoscope **130**, 1680–1685 (2020).
2. Ahn, T. H., Heo, C. Y. & Ahn, K. C. A compound osteocartilaginous graft with polycaprolactone (PCL) mesh in Asian rhinoplasty. Journal of Plastic, Reconstructive & Aesthetic Surgery **12**(29), 1-2 (2020).
3. Nam, J. H., Lee, S. Y., Khan, G. & Park, E. S. Validation of the optimal scaffold pore size of nasal implants using the 3-dimensional culture technique. Archives of Plastic Surgery **47**, 310-316 (2020).
4. Wiggenhauser, P. S., Balmayor, E. R., Rotter, N. & Schantz, J. T. In vivo evaluation of a regenerative approach to nasal dorsum augmentation with a polycaprolactone-based implant. Eur. J. Med. Res. **24**, 6 (2019).

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

MCN 03 005B XE Rev 2

Osteopore®
Empowering Natural Tissue Regeneration

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