creos™ xenoprotect: strong native collagen membrane

High mechanical strength¹
– High suture retention
– High tear resistance

Easy handling
– Does not stick to instruments
– Both sides can face defect
– Low surface expansion when hydrated

Facilitates new bone formation²,³
– Significantly higher new bone formation in the central portion of the defect, in comparative in vivo study
– Associated with significantly increased expression of growth factor BMP-2

High success rate proven in randomized controlled trial⁴
In an RCT published by Dr Istvan Urban et al., creos xenoprotect and Geistlich Bio-Gide® similarly reduced defect height after simultaneous GBR and implant placement.

High tensile strength and suture retention¹
Studied in vitro compared to other collagen membranes
– Showed the highest suture retention when hydrated (6.1 N)
– Demonstrated the highest force at break, wet (21.2 N)

Stable during the period required for barrier function⁵
After 20 weeks in an animal model, the thickness of creos xenoprotect decreased only slightly, whereas Geistlich Bio-Gide® showed around 50% thickness loss.

Proprietary production process
Developed at Matricel, Nobel Biocare’s manufacturing site for regenerative materials in Germany, more than 30 manufacturing processes were evaluated before choosing the process that produced the best cell compatibility and mechanical strength.

Comparison of commercial membranes in a hydrated state

Schematic showing the defect height:

Prior to treatment
- creos™ xenoprotect: 5.1 ± 2.1 mm
- Reference: 4.9 ± 1.3 mm

6 months after GBR
- creos™ xenoprotect: 1.0 ± 1.3 mm
- Reference: 1.7 ± 2.1 mm

Non-cross-linked collagen membranes (NXL) - creos™ xenoprotect (Nobel Biocare); CO: Copios [Zimmer]; JS: Jason [botiss]; OF: Osseoguard Flex [3i]; BG: Bio-Gide (Geistlich)
Cross-linked collagen membranes (XL) - BE: BioMend Extend [Zimmer]; ML: Mem-Lok [BioHorizons]; OP: OssiPlus [Datum Dental]; BM: BioMend [Zimmer]; *Statistically significant

Manufacturing site of creos xenoprotect
Clinical case

A 54-year-old male patient reported with missing teeth 46, 47. Poor bone quantity with 2-3 mm thickness at the crest and 8 mm and 6 mm of residual bone, respectively, on top of the nervus alveolaris inferior region.

(a, b) Pre-operative assessment
(c) Cortical perforations and tenting screws applied
(d) creos xenoprotect and bone graft applied
(e) Graft immobilized - spanning of creos xenoprotect
(f) Panoramic radiograph after GBR
(g) After 6 months: 3 mm vertical, 8 mm horizontal bone gain
(h, i) Immediately after implant placement
(j) Situation after four months’ healing

Dr. Fabrizio Colombo
Oral surgeon, Italy

“Strength and elasticity of creos xenoprotect can protect and stabilize the grafted area even in the most challenging cases.”

Dr. Ignacio Ginebreda
Oral surgeon, Spain

“I choose creos xenoprotect for my grafting procedures due to its exceptional handling and its track record of consistently delivering predictable outcomes.”

Dr. Catherine Rivière
Periodontist, France

“I use creos xenoprotect combined with creos xenogain particularly in cases of GBR. The membrane, stabilized by pins, offers significant strength and stability.”

More to explore

Scientific evidence
Clinical cases
Production & handling movie
Why creos xenoprotect?