

# InterCollagen<sup>®</sup> Guide

Resorbable Collagen Membrane



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InterCollagen® Guide is a porcine-derived resorbable collagen membrane intended for periodontal and/or dental surgeries. When used in conjunction with a graft material for a guided bone regeneration procedure, the membrane acts as a barrier that restricts the entry of rapidly proliferating non-osteogenic cells within the bony defect while allowing the ingrowth of slow-growing bone-forming cells. This resorbable barrier gets remodeled and/or incorporated by the host tissue.

InterCollagen® Guide's dense fibrous architecture enhances mechanical strength and increases durability, and yet it is easily sutured, highly drapable, and can be trimmed to the required size.

## Indications of Use

InterCollagen® Guide can be used in guided bone regeneration (GBR) and guided tissue regeneration (GTR) procedures as a biodegradable barrier for:

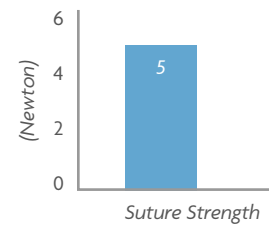
- After apicectomy, cystectomy, resection of retained teeth, and resection of other bone lesions
- Periodontal bone defects (1-3 wall defects) and furcation defects (class I and II)
- Immediate or delayed augmentation around implants in extraction sockets
- Sinus floor augmentation and support of the Schneiderian membrane
- Maxillary ridge reconstruction for prosthetic treatment
- Extraction sockets after tooth extractions
- Surgical bone defects and bone wall defects
- Maxillary ridge augmentation
- Dehiscence and fenestration defects



## Features & Benefits

### High Suture Strength

Despite a low thickness of 0.13 mm, the membrane retains a high suture strength of at least 5N due to minimal processing.



### Slow Degradation Time

The resorbable membrane is substantially resorbed by 13 weeks in a canine model.

### Easy Handling & Application

Can be easily trimmed to size in dry or wet conditions; drapable and can be pinned and sutured.

### Dual Function

Bilayer structure provides dual function:

- Smooth side acts as a barrier that prevents soft tissue growth
- Open-pore structure on the rough side facilitates growth of bone forming cells, nerve, and blood vessels

### Available in the following sizes

SKU	Size	SKU	Size
ICG1225	12 x 25 mm	ICG2525	25 x 25 mm
ICG1520	15 x 20 mm	ICG3040	30 x 40 mm
ICG2030	20 x 30 mm		

## Application & Handling



### Hydration

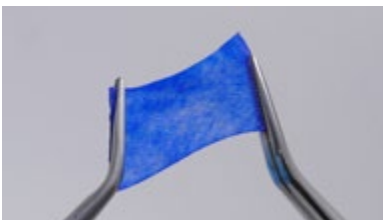
InterCollagen® Guide can be hydrated in blood or sterile saline solution. It can also be applied dry, a common method used with application of the graft material in lateral augmentation of defects on the outer ridge contour. The InterCollagen® Guide can adapt to any surface contours and can be easily repositioned should the need arise.

### Placement

InterCollagen® Guide has a bilayer structure which provides dual function. One side has a smooth texture which acts as a barrier to prevent soft tissue growth while the other side, rougher in texture with open pores, facilitates the ingrowth of bone forming cells, nerve, and blood vessels. Although not required, it is recommended to place the smooth side towards the gingiva and the rough side towards the bone for maximum results. Trim and place InterCollagen® Guide to overlap the defect by at least 2-3 mm to prevent lateral ingrowth of gingival connective tissue.

### Shaping

InterCollagen® Guide can be trimmed to the desired dimensions using a pair of scissors when needed. It could also be beneficial to use templates when trimming in order to minimize waste.



### Fixation

Regardless of the direction of the stretch, InterCollagen® Guide demonstrates an exceptional tear resistance. It can be pinned, sutured, or even screwed effortlessly without rupturing. Because of this reason, additional fixation is unnecessary in most cases due to the outstanding drapability of the membrane to the bony walls.

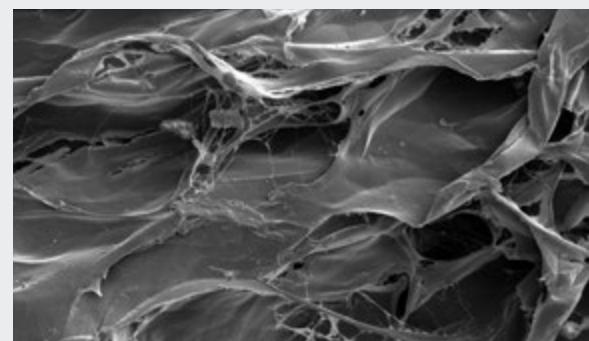
## Exposure

As much as possible, avoid the exposure of InterCollagen® Guide since bacterial resorption will substantially decrease the efficacy of the membrane to act as a barrier. Should a dehiscence occur, formation of free granulation tissue usually can still help heal the wound without complications.

## Properties

Attribute	Description
Source	Porcine pericardium
Composition	Native collagen type I and III
Thickness	0.1 - 0.3 mm
Structure	Natural multilayered collagen structure
Storage temperature	59 - 86 °F / 15 - 30 °C
Degradation time	13 weeks in a canine model
Fixation	Generally not required due to good surface adaptation, but possible (pinning, suturing, screwing)

*Multi-scale porous structure provides favorable environment for the growth of cells and tissues, and formation of extracellular matrix (ECM), while also allowing nutrient exchange and blood vessel ingrowth.*



# Sinus Elevation

Dr. Yong Dae Kwon

Kyung Hee University, School of Dentistry  
South Korea

## Objective

In order to reconstruct the missing teeth in the right posterior maxilla, a sinus lift surgery was planned via lateral window technique because of major loss of alveolar bone in the region.

## Conclusion

A lateral window sinus lift is a safe and predictable procedure, and InterOss® is a good bone substitute with good handling. To prevent the soft tissue ingrowth to the graft, the window in the lateral wall should be covered by an InterCollagen® Guide.



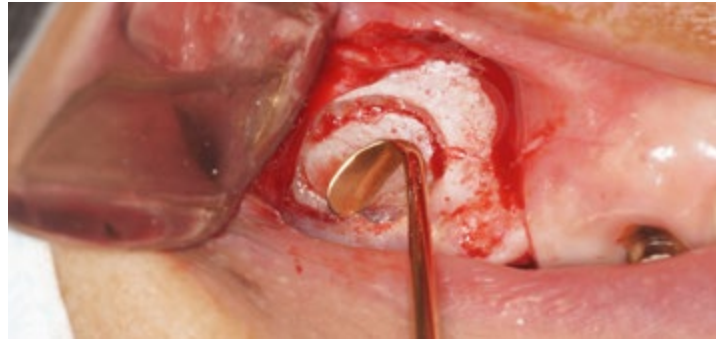
Pre-operative X-ray



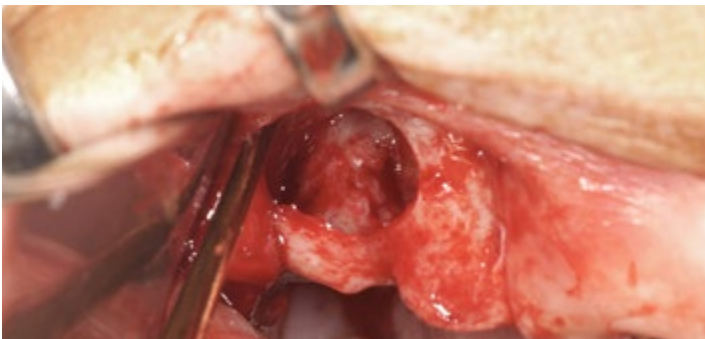
Flap elevated to expose the bone



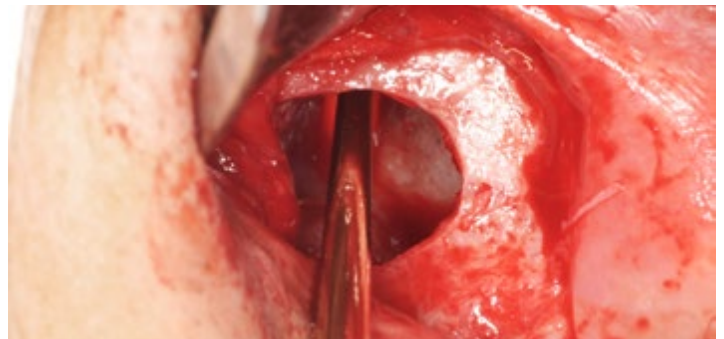
Lateral window preparation (part 1)



Lateral window preparation (part 2)



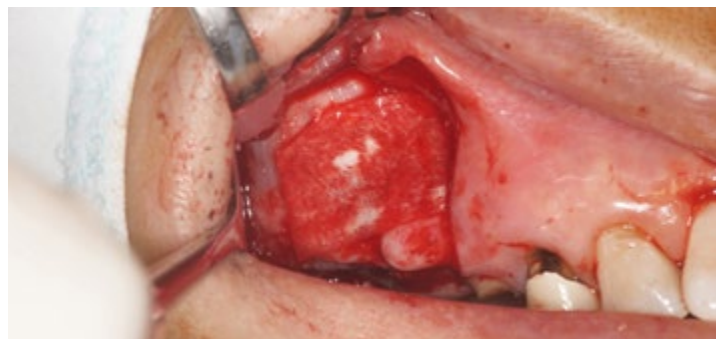
Sinus cavity revealed (part 1)



Sinus cavity revealed (part 2)



InterOss® placement



InterCollagen® Guide placement

# Ankylosed Incisor Extraction and Socket Grafting

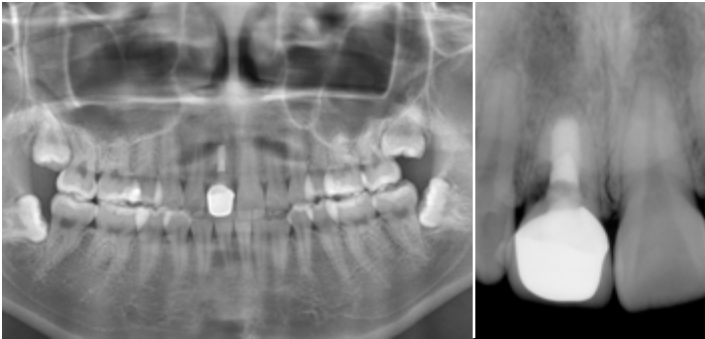
Dr. Yong Dae Kwon  
Kyung Hee University, School of Dentistry  
South Korea

## Objective

Maintaining the form of the socket post-extraction was necessary as the #11 tooth had been traumatized and internal resorption was seen in the long-term follow-up.

## Conclusion

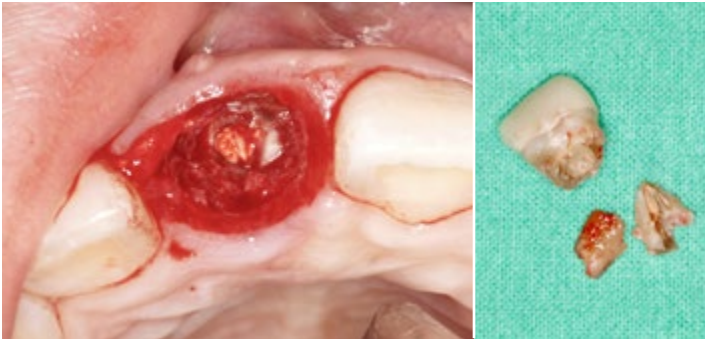
Two InterOss® Collagen blocks were inserted and an InterCollagen® Guide was applied to cover them. Although a chronic fistula was seen, a socket graft procedure can be performed as long as no acute inflammation nor suppuration were identified. The blocks were firm enough to maintain the socket form and were easy to handle and trim with a scalpel.



Pre-operative X-ray



Chronic fistula near the affected tooth



Extraction of ankylosed tooth



Empty socket post-extraction



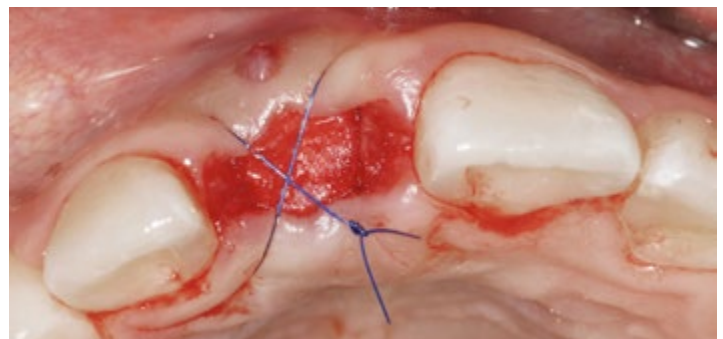
InterOss® Collagen placement



InterCollagen® Guide placement



InterCollagen® Guide applied over socket



Socket secured and sutured

## Secondary Augmentation

Dr. Yong Dae Kwon

Kyung Hee University, School of Dentistry  
South Korea

### Objective

Local inflammation and compromised healing may cause focal loss of bone graft. To repair the loss, a secondary focal bone grafting can be done.

### Conclusion

To maintain the additional bone substitute on the defected area, a malleable block-type of bone graft may be a good option rather than particulate-type. Coverage with an InterCollagen® Guide membrane can reduce soft tissue ingrowth.



Post-operative view



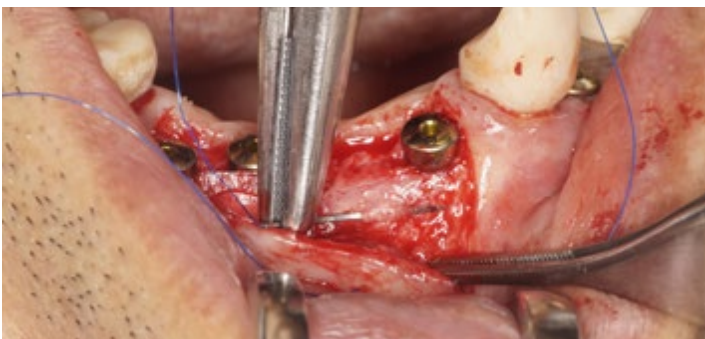
Loss of graft buccal side of one implant



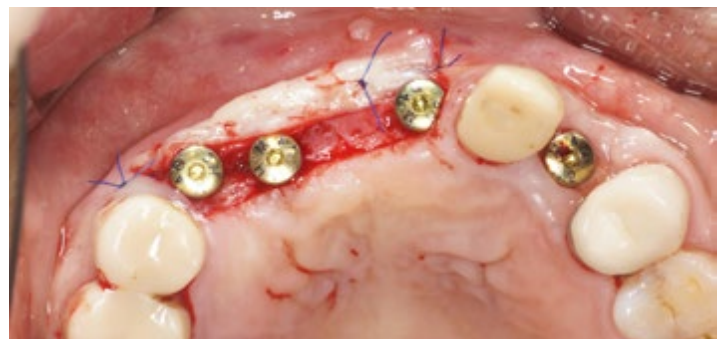
InterOss® Collagen placement



InterCollagen® Guide placement



Flap suture preparation



Apically positioned flap



Additional small transpositional flap from palate



SigmaGraft®, based in Fullerton, California, USA, collaborates with the world's leading clinicians and researchers to innovate products and build clinical experience. Our products are registered and sold worldwide, and they include bone grafting products for bone regeneration, membrane products for tissue regeneration, and more.

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