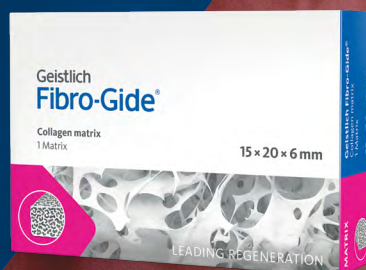




A CASE REPORT BY
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Use of Geistlich Fibro-Gide® for Correction of Maxillary Anterior Soft Tissue Peri-Implant Ridge Deficiencies





► The Situation

A 27 year old female with congenitally missing maxillary lateral incisors was referred for implant placement. Following completion of orthodontics, a plan was developed to place dental implants at the #7 and #10 positions. Based on CBCT evaluation, alveolar ridge height and width was deemed sufficient for implant placement. Despite sufficient bone volume, facial ridge volume deficiencies were noted at both edentulous sites, requiring augmentation to allow for optimal esthetics.

► The Risk Profile

Esthetic Risk Factors	Low Risk	Medium Risk	High Risk
Patient's health	Intact immune system	Light smoker	Impaired immune system
Patient's esthetic requirements	Low	Medium	High
Height of smile line	Low	Medium	High
Gingival biotype	Thick - "low scalloped"	Medium - "medium scalloped"	Thin - "high scalloped"
Shape of dental crowns	Rectangular		Triangular
Infection at implant sight	None	Chronic	Acute
Bone height at adjacent tooth site	≤ 5 mm from contact point	5.5 - 6.5 mm from contact point	≥ 7 mm from contact point
Restorative status of adjacent tooth	Intact		Restored
Width of tooth gap	1 tooth (≥ 7 mm)	1 tooth (≤ 7 mm)	2 teeth or more
Soft tissue anatomy	Intact		Compromised
Bone anatomy of the alveolar ridge	No defect	Horizontal defect	Vertical defect

SPECIAL INTEREST

Gingival Augmentation, Guided Bone Regeneration

"A buccal ridge deficiency with congenitally missing lateral incisors in a high scallop, high smile young female patient."

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Dr. Puterman, originally from Montreal Canada, received his DMD from Boston University in 2002 and dual graduate certificates in Implant Dentistry and in Periodontics from Loma Linda University in 2008. He is a published author in various journals including the Journal of Prosthetic Dentistry and the Journal of Prosthodontics. He practices in the Washington, DC area.

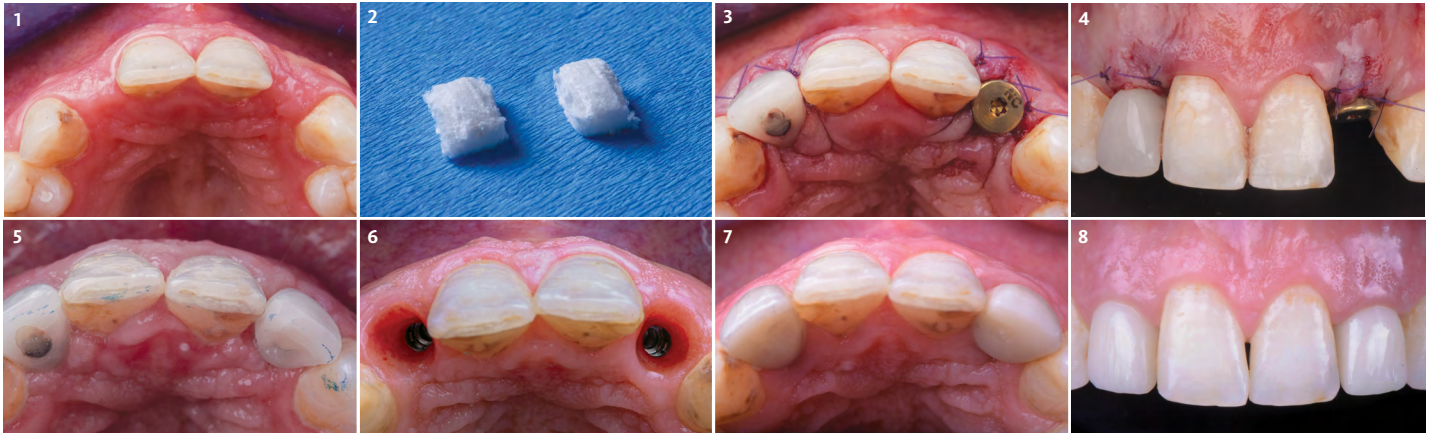


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► The Approach

The goal of treatment was to replace missing maxillary lateral incisors with dental implants, while providing an esthetic result with predictable and minimally invasive techniques. Employing a surgical guide for implant placement, implants were placed in precise 3-dimensional positions. The use of xenograft biomaterials (Geistlich Fibro-Gide®) allowed for the augmentation of gingival biotype and elimination of the buccal ridge deficiencies while avoiding the harvesting of autogenous tissue.



1 Pre-surgical, occlusal view, demonstrating buccal ridge concavities at edentulous sites, #7 and #10.

2 Geistlich Fibro-Gide® collagen matrix is cut and shaped prior to placement into surgical sites.

3 Immediate post-surgical occlusal view following placement of implants and Geistlich Fibro-Gide® on facial aspects. Implant #7 was provisionalized immediately, however implant #10 did not achieve sufficient stability and a healing abutment was placed.

4 Immediate post-surgical facial view. One can note the buccal prominences being developed by the presence of Geistlich Fibro-Gide®.

5 2 month post-surgical view, following provisionalization of implant #10. Buccal convexities at the implant sites are still evident.

6 8 month view of implant sites at time of torque test, following maturation of gingival emergence. Of note is thick, convex buccal tissue free of any sign of inflammation.

7 Occlusal view following final restoration, (Dr. Paul Krainson). Natural-appearing buccal gingival convexities remain 1.5 years post-surgery.

8 Frontal view of final restoration of implants. The tissue health with stippling and root-like gingival prominences are noted.

SOFT TISSUE VOLUME

Geistlich Fibro-Gide® works well for gingival augmentation

“Correction of labial soft tissue ridge deficiencies at implant sites through use of a Geistlich Fibro-Gide® volume stable, collagen matrix.”

(See image to the left)

► The Outcome

The presented case involves a female patient with congenitally missing maxillary lateral incisors and soft tissue ridge deficiencies. Implants were placed and a volume-stable collagen matrix Geistlich Fibro-Gide® was placed to provide labial soft tissue volume. The tissue emergence was then developed with the use of provisional restorations, one placed at the time of surgery, the other following implant integration. The implants were restored with gingival tissue transformed to mimic convex root emergence.



Briefly Speaking

► Keys to Success

1. Recognition that despite concavities, sufficient bone existed to safely accommodate implant placement.
2. Minimal full thickness flap reflection to allow for collagen matrices to remain stable without stabilization sutures.
3. Working within limits and recognition when an implant can accommodate an immediate provisional restoration.
4. Use of provisional restoration to guide and shape gingival tissues to form anatomical contours.

► My Instruments

1. CBCT to properly diagnose the alveolar ridge
2. Surgical guide to place implants in the ideal location
3. Geistlich Fibro-Gide® to bulk facial contours
4. Provisional restorations to shape gingival emergence

“A volume-stable collagen matrix can be used to correct a labial soft tissue deficiency, eliminating the potential negative sequelae of an autogenous connective tissue graft.”

► My Biomaterials

Geistlich Fibro-Gide® is a volume-stable collagen matrix specifically designed for soft tissue regeneration. As an alternative to connective tissue grafts, it is ideally suited for augmentation around natural teeth and implants.



Geistlich Fibro-Gide® provides soft tissue volume and long-term stability



“Various materials can be used to restore a soft tissue deficiency; use of a volume-stable collagen matrix provides numerous advantages when used in the proper indication.”

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ABOUT BIOBRIEF

We know that exposure to new or refined treatment approaches brings innovation to practice. Geistlich Biomaterials is pleased to introduce a periodic opportunity to get up close and personal with creative clinicians from around the world. Focused on peer-to-peer exchange, BIOBRIEF features clinically relevant cases and techniques in specific therapeutic areas – highlighted with valuable insights about materials and instrumentation, as well as KEYS TO SUCCESS.

Geistlich Biomaterials – bringing you *regeneration on time*.

▶ **Palate Free Innovations**

At Geistlich, over 165+ years of collagen expertise has fueled soft tissue advancement with a selection of matrices to expand therapeutic options in both open and closed healing situations.

The result is an evolution in care – a palate free approach. Positively impacting patient satisfaction with faster treatment times and considerably less pain and discomfort.



For more information visit: palatefree.com



CAUTION: Federal law restricts these devices to sale by or on the order of a dentist or physician.

Indications:

Geistlich Fibro-Gide® is indicated for the following uses: Soft tissue augmentation; localized gingival augmentation to increase keratinized tissue around teeth and implants; Alveolar ridge reconstruction for prosthetic treatment; and recession defects for root coverage.

Warnings:

As Geistlich Fibro-Gide® is a collagen product, allergic reactions may not be totally excluded. Possible complications which may occur with any surgery include swelling at the surgical site, flap sloughing, bleeding, dehiscence, hematoma, increased sensitivity and pain, redness and local inflammation.

For more information on contraindications, precautions, and directions for use, please refer to the Geistlich Fibro-Gide® Instructions for Use at: www.dental.geistlich-na.com/ifu