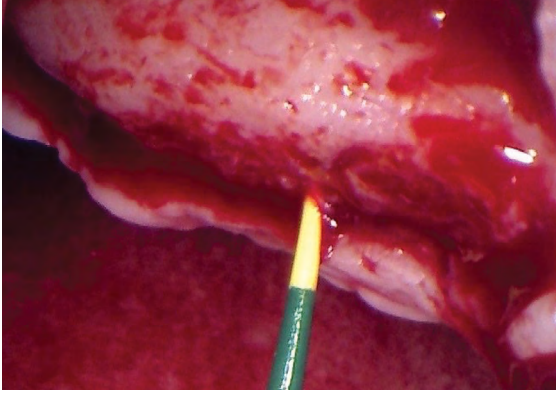


A CASE REPORT BY
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Diplomate American Board of Oral Implantology

Avoiding Post-Implant Placement and Long Term Crestal Bone Resorption by Thickening Vertical Soft Tissue





► **The Situation**

Our patient is a 60 year old caucasian male that had just finished a large ridge augmentation in the area of #4 and #5. We used the sausage technique for the ridge augmentation and yielded excellent bone volume in this area. However, as we began the 2nd stage implant placement procedure, we noticed, as is frequently seen following a large ridge augmentation, very thin vertical soft tissue over the crest of the bone. We know that inadequate soft tissue thickness will lead to compromised vasculature and transfer of oxygen and nutrients to the bone which can asolutely lead to a loss of crestal bone surrounding the implants.

► **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 site	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

Bone was augmented prior to this case report due to a severe horizontal defect.



SPECIAL INTEREST
Guided Bone Regeneration

“Thin vertical soft tissue over the implant site following ridge augmentation is one of the key factors which may lead to crestal bone loss around the implants that will be placed.”

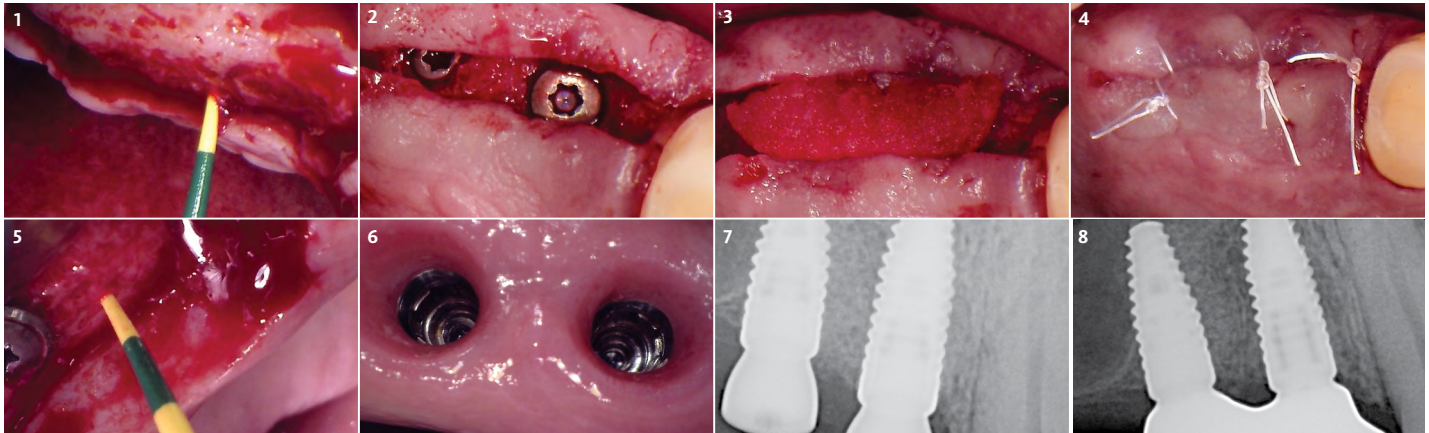
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Dr. Wardany is a graduate of Meharry Medical College School of Dentistry in Nashville, TN. After completion of a dental implant fellowship through State University of New York Stonybrook, he continues to spend extensive time in Europe training under Dr. Istvan Urban in the field of advanced bone and soft tissue regeneration. He is a Diplomate of the American Board of Implantology, and lectures extensively on the topic of bone regeneration. He maintains a referral based surgical implant practice in San Francisco and Scaramento, California.

 @drwardany

► The Approach

Our goal here is to create increased vertical soft tissue thickness over the crest of the implant site. Following implant placement and placement of the cover screws, we used Geistlich Fibro-Gide® over the implants and then layed it over the crest and buccal aspect. Following the placement of Geistlich Fibro-Gide®, we gently released the full thickness flap so that we can achieve tension-free primary closure over the site.



- 1 6 months following horizontal ridge augmentation, using Dr. Urban's sausage technique, we re-entered the site for implant placement using a full-thickness flap with no vertical incisions, to not disrupt collateral blood supply. There is excellent bone volume, but a very thin vertical soft tissue volume over the crest of the implant site.
- 2 Straumann implants are placed in sites #4 and #5 to a 25Ncm torque value with no issues and the cover screws were placed.
- 3 Geistlich Fibro-Gide® is placed crestally over the implants and draped to the buccal and slightly towards the lingual. Geistlich Fibro-Gide® was trimmed slightly to minimize the thickness of the material.
- 4 The flap was released so that we can achieve tension-free primary closure over the implant and the Geistlich Fibro-Gide® soft tissue augmentation site.
- 5 Following an 8 week healing period, we make a crestal incision and lay a conservative full-thickness flap to uncover the implants. We observe a 3-4 mm increase in verticle soft tissue thickness over the implant site.
- 6 We allow 3 weeks following the initial uncovering and can now see beautiful soft tissue architecture surrounding the implants.
- 7 Prior to the restorative process we see the pre-restorative radiograph with the healing abutments in place and we can also observe excellent crestal bone levels around the implants.
- 8 1 year follow-up. The restorative dentist opted to splint the crowns together. The patient did not want implants posterior to this area and he did not want any sinus augmentation as he had a history of sinus issues.

SOFT-TISSUE VOLUME

Geistlich Fibro-Gide® works well for gingival augmentation

“Beginning with thin soft tissue, we were able to achieve very thick and healthy vertical soft tissue over the implants, which will improve blood flow to the bone and minimize crestal bone loss in future.”

(See image to the left)

► The Outcome

The soft tissue that will now surround the implant site is thick and healthy due to the use of Geistlich Fibro-Gide® at the time of implant placement. This is a simple technique and only requires a minimal amount of flap release to achieve tension-free primary closure over the site. The results are phenomenal and will be beneficial for the stability of the crestal bone surrounding the implants for years to come.

Briefly Speaking

► Keys to Success

1. Full-thickness flap without vertical releasing incisions for implant placement.
2. The flap must be released adequately enough to achieve tension-free primary closure.
3. Geistlich Fibro-Gide® is an excellent alternative to a connective tissue graft to increase vertical soft tissue thickness.
4. Geistlich Fibro-Gide® is placed at the crest and towards the buccal and lingual as well.
5. The site must be closed with primary tension-free closure as Geistlich Fibro-Gide® cannot be exposed during healing.
6. Following 8 weeks the site can be uncovered showing beautiful and thick soft tissue volume.

► My Instruments

1. Hu-Friedy 10-130-05E #5 scalpel handle
2. Hu-Friedy Yellow color coded probe
3. Hu-Friedy MIR5 mirror #5 FS CS, single sided, single
4. Hu-Friedy PFIWDS1MK Mini Me Micro Periosteal
5. Hu-Friedy PPR3X #PR-3 Prichard Periosteal, black line

“I find the Mini-Me Periosteal to be my most versatile instrument for all my hard and soft tissue cases. I always have this instrument out on my surgical tray.”

► 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

Geistlich Fibro-Gide®

A volume stable solution for your soft tissue regeneration needs



The use of Geistlich Fibro-Gide® is a wonderful alternative to using a connective tissue graft to thicken vertical soft tissue, which will help minimize crestal bone loss around implants.“

▶ [Click here to view the webinar](#)

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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 Innovation

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.

Indications:

Geistlich Bio-Oss Collagen® is indicated for the following uses: Augmentation or reconstructive treatment of the alveolar ridge; Filling of periodontal defects; Filling of defects after root resection, apicoectomy, and cystectomy; Filling of extraction sockets to enhance preservation of the alveolar ridge; Elevation of the maxillary sinus floor; Filling of periodontal defects in conjunction with products intended for Guided Tissue Regeneration (GTR) and Guided Bone Regeneration (GBR); and Filling of peri-implant defects in conjunction with products intended for GBR.

Warnings:

Possible complications which may occur with any surgery include swelling at the surgical site, flap sloughing, bleeding, local inflammation, bone loss, infection or pain. As Geistlich Bio-Oss Collagen® contains collagen, in very rare circumstances cases of allergic reactions may occur.

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