

Geistlich

BI**BRIEF**
REGENERATIONTIME

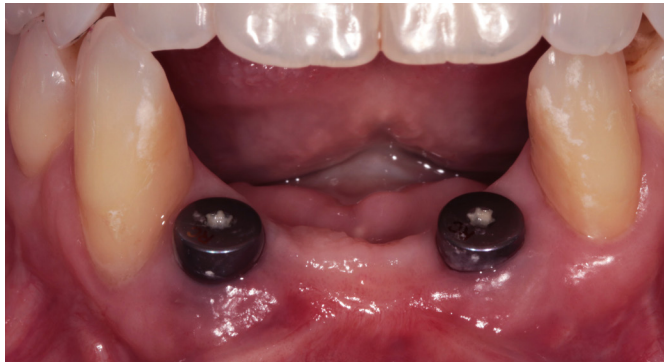


Enhance Peridontal Phenotype with Geistlich® Mucograft for Soft Tissue Augmentation

A CASE REPORT BY
ALLISON RASCON, D.D.S., M.S.



The Situation



Regeneration
Soft Tissue
Augmentation
Periodontal and
Mucogingival Plastic
Surgery

“A viable option that allows for reduced patient morbidity, adequate functional necessity, and ideal esthetics.”

A healthy, non-smoking, 37-year-old female presented for second stage surgery at implant sites #23 and #26. Limited keratinized tissue width and gingival thickness can be appreciated in the edentulous ridge, and the patient can be classified as having a thin periodontal phenotype. Additionally, the patient states she experiences sensitivity, and the tissue feels “tender” when brushing. The patient hopes to address her needs in a minimally invasive manner.

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

Note: The patient's keratinized tissue is inadequate (<2 mm) and the recession on the canines can be classified as RT 1 defects.

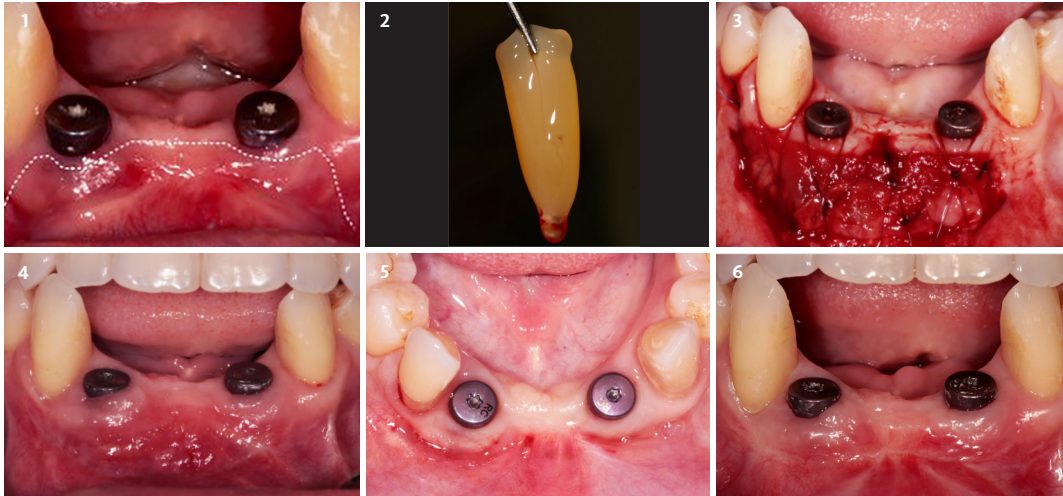
ALLISON RASCON, D.D.S., M.S., Philadelphia, PA Periodontist

Dr. Allison Rascon was born and raised in Miami, Florida. She received her Bachelor of Science in Biomedical and Health Sciences from the University of Central Florida. She received her DDS from New York University, where she graduated with honors in Periodontics and was inducted into the Omicron Kappa Upsilon National Dental Honor Society in 2020. She then went on to receive a Certificate in Periodontics and Master of Science in Oral Biology from the University of Pennsylvania. Currently, she is board-eligible by the American Academy of Periodontology. She is an active member of the AAP, AO, OF, and ADA. Aside from her active participation in organized dentistry, she is also passionate about her research in periodontal and peri-implant regeneration. Dr. Rascon was a recipient of the George J. Coslet Memorial Scholarship in 2021 and 2022. During her residency, she was awarded the Best Oral Clinical Presentation Award at the Academy of Osseointegration Annual Meeting in 2022 and was the recipient of the Northeastern Society of Periodontists Tannenbaum/ Schoor Resident School Competition Award for 2023. Currently, Dr. Rascon works in private practice in Manhattan, NY.



The Approach

The aim of treatment was to enhance the existing periodontal phenotype from that of one which is thin, with limited keratinized tissue, to one that is thick and maintains an adequate band of attached keratinized tissue. Geistlich Mucograft® was used in conjunction with a PRF membrane, in order to provide optimal wound healing, due to its chemotactic and angiogenic properties.



- 1 A mid-facial incision was made, with the intent to preserve the minimal keratinized tissue that was available, as well as vertical incisions along the line angles of the canines to reflect a partial thickness flap.
- 2 Platelet-rich fibrin clots were formed by centrifugation. The leukocyte-PRF (L-PRF) was extracted, and the L-PRF was used to hydrate Geistlich Mucograft®.
- 3 Geistlich Mucograft® and PRF stabilized via glycolon sutures.
- 4 Clinical situation at three-week follow up.
- 5 Occlusal view at twelve-month follow up.
- 6 Frontal view at twelve-month follow up.

The Outcome



Final restoration: 12 month healing

“With adequate recipient bed preparation, the ease of manipulation with the hydrated xenograft matrix allowed for intimate adaptation, and the overlaying PRF was easily compressed against Geistlich Mucograft®. At twelve months follow up, stable soft tissue dimensions are observed with adequate thickness, as well as esthetically appropriate blend of the tissue color and texture.”

Dual application of platelet-rich fibrin (PRF) and a xenogenic collagen matrix, Geistlich Mucograft®, led to successful augmentation of the edentulous ridge. At one-year, the tissues appear healthy, and an increased keratinized tissue width and gingival thickness can be appreciated. By using this soft tissue alternative, the patient was able to avoid post-operative morbidity from a second surgical site, and the chief complaint was addressed.

Briefly Speaking

Keys to Success

1. Appropriate diagnosis and prognosis classification
2. Appropriate home care instructions
3. Appropriate handling and use of biomaterials

My Biomaterials

Geistlich Mucograft® is the ideal matrix for increased tissue thickness and when the gain of keratinized tissue is required.

My Instruments

1. 15c and 12b blades
2. Buser Periosteal Elevator (Hu-Friedy)
3. Dental PRF Kit (Duo Quattro®)
4. Geistlich Mucograft® (Geistlich Biomaterials)
5. 5-0 PGA-PCL (Osteogenics)
6. Castroviejo Needle Holder (Hu-Friedy)

Geistlich Mucograft®

Provides a soft tissue thickness and increased keratinized tissue



ALLISON RASCON, D.D.S., M.S

“Soft tissue procedures are technique sensitive and success requires appropriate graft size and thickness, recipient bed preparation, and adequate stabilization. Having a xenograft matrix provides control over having the necessary graft dimensions, without requiring a second surgical site, and it’s easy-handling properties ensure placement and stability are done in a predictable manner.”



The Therapeutic Area

Geistlich biomaterials can play a significant role in the treatment of soft tissue regeneration. Geistlich Mucograft® allows the ability to perform soft tissue procedures without going to the palate. This palate free approach provides faster treatment times and considerably less pain and discomfort for your patient.

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

For more information on contraindications, precautions, and directions for use, please refer to the Geistlich Biomaterials Instructions for Use at: <https://www.geistlich-na.com/dental-professionals/downloads-dental-professionals#cc61290>