



# Soft Tissue Management for Anterior Esthetic Restoration: A Case Report

**Watchariyaporn Thasai**, Sina Ghassemi, Soma Fukui, Alejandra Sabater, Abdullah Alqarni, Jirach Sawatdipong, Stuart Froum, Sang-Choon Cho, Leena PalomoAshman  
Department of Periodontology and Implant Dentistry New York University College of Dentistry



## Abstract

This case report details the comprehensive dental implant procedure for a 49-year-old African American male who presented at the implant clinic with the primary complaint of wanting to replace his front teeth, lost due to trauma 20 years prior. The patient had been using a removable appliance. A staged approach involving extensive ridge augmentation followed by the placement of two Straumann implants and soft tissue enhancement resulted in uneventful healing and successful preparation for final restoration.

## Introduction

Tooth loss due to trauma can significantly impact oral function and aesthetics, affecting a patient's quality of life. Dental implants offer a durable solution for tooth replacement, though cases involving long-term edentulism may require preliminary procedures such as ridge augmentation to ensure the success of the implantation.

## Case Presentation

A 49-year-old African American male sought dental care for the replacement of teeth #8 and #9, which he had lost 20 years earlier due to trauma. The patient had been utilizing a removable dental appliance as a temporary solution. Clinical examination and Cone Beam Computed Tomography (CBCT) scans revealed inadequate bone volume for immediate implant placement, necessitating a staged treatment approach.

## Treatment and Management

The treatment plan was initiated with extensive ridge augmentation to rebuild the alveolar ridge anatomy, employing a resorbable membrane and xenograft bone substitute materials to facilitate bone regeneration. This phase of treatment proceeded without complications, and the site was allowed to heal for 12 months.

Following the successful augmentation of the ridge, two Straumann 3.3x10 mm dental implants were surgically placed in the positions of teeth #8 and #9. The patient was then entered into a 4-month healing period to allow for osseointegration of the implants.

At the stage 2 surgery, additional xenograft material was placed to ensure adequate bone support. A provisional restoration was fabricated to provide aesthetics and function during the healing process. Furthermore, an additional connective tissue graft was performed in the labial area to enhance the volume and quality of the soft tissue, contributing to a more favorable aesthetic outcome.

## Outcome and Follow-Up

Healing post-procedure was uneventful, with the patient demonstrating excellent tissue integration and no signs of infection or complications. The patient is currently awaiting the fabrication and placement of the final restorations, which will complete the aesthetic and functional rehabilitation of the edentulous area.

## Discussion

This case underscores the importance of a carefully planned and staged approach to dental implantation, especially in scenarios involving significant pre-existing bone loss. The use of xenografts for ridge augmentation and connective tissue grafts for soft tissue enhancement are critical components in preparing the site for successful implant placement and optimizing aesthetic outcomes.

## Conclusion

Dental implantation, following extensive pre-operative preparation including ridge augmentation and soft tissue management, offers a promising solution for patients with long-term tooth loss. This case highlights the potential for achieving satisfactory aesthetic and functional results, enhancing the patient's oral health and quality of life.



1. Tavelli L, Zucchelli G, Stefanini M, Rasperini G, Wang HL, Barootchi S. Vertical soft tissue augmentation to treat implant esthetic complications: A prospective clinical and volumetric case series. Clin Implant Dent Relat Res. 2023 Apr;25(2):204-214.
2. De Carle L, Froum S, Maketone P, Grisa A, Lima E, Malz A, Cho SC. Treatment of soft tissue depression with a xenograft bone substitute at the second stage of an implant procedure: A case report. Int J Periodontics Restorative Dent 2023;43:23-27
3. Stuart Froum, Miltiadis Lagoudis, Giovanni Molina, Takanori Suzuki, Sang-Choon Cho. The new surgical protocol to create interimplant papilla: The preliminary results of a case series. 2016, Nov No 2
4. Stuart J. Froum, Sang-Choon Cho, Salvatore Florio, Craig M. Misch. Use of Narrow-Diameter Implants in Treatment of

5. Severely Atrophic Maxillary Anterior Region With Implant-Supported Fixed Restorations. COMPENDIUM May 2016
6. Amin PN, Bissada NF, Ricchetti PA, Silva AP, Demko CA. Tuberosity versus palatal donor sites for soft tissue grafting: A split-mouth clinical study. Quintessence International. 2018 Jul 1;49(7).
7. Stuart J. Froum, Wendy Chia-Wei Wang, Tarek Hafez, Takanori Suzuki, Yung Cheng Paul Yu, Sang-Choon Cho. Incision Design and Soft Tissue Management to Maintain or Establish an Interproximal Papilla Around Integrated Implants: A Case Series. Int J Periodontics Restorative Dent 2018;38:XXX-XXX.
8. Ye Shi, Inés Fernández Guallart, Mashal Alrajhi, Sang-Choon Cho, Stuart J. Froum. Reconstructing Peri-implant and Papillary Soft Tissue in the Esthetic Area Using Interdental Tissue, a Tuberosity Connective Tissue Graft, and a Tunneling Approach: A Case Report. Compendium 2022 October 2-7.