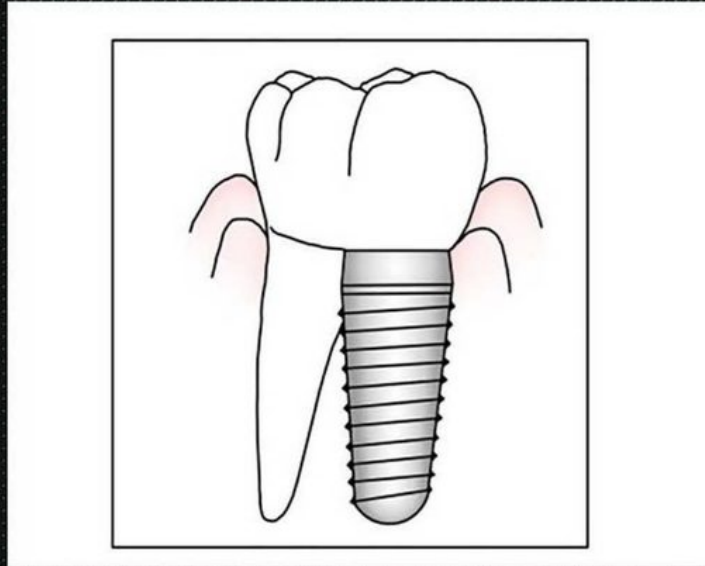




Samir F. Zakaria, *D.D.S., M.S.D*
Periodontics & Dental Implants
Diplomate, American Board of Periodontology, and
Dental Implant Surgery
Northville, MI
www.zakariaperio.com



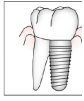
Dr. Samir Zakaria, DDS, MSD

Periodontist & Dental Implant Specialist — Northville, MI

For more than 30 years, Dr. Samir Zakaria has focused on one thing above all: getting the diagnosis right, because the right diagnosis is what makes treatment actually work. That focus is what led him to develop the Flapless Connective Tissue Graft — a minimally invasive technique he's now performed for 18 years—and to build a practice known as much for its bedside manner as its results.

He is a Diplomate of the American Board of Periodontology, certified in Periodontics and Dental Implants, and has been named “Top Dentist” for 18 consecutive years by Hour Magazine, Top Dentists Online, and Skyline Magazine. He holds a Certificate of Periodontics and a Master of Science from Indiana University School of Dentistry, and a Doctor of Dental Surgery degree from University of Detroit-Mercy School of Dentistry.

Outside the office, Dr. Zakaria stays active with basketball, running, and swimming, and spends his free time with family, reading, and catching a good movie — the same balanced, unhurried approach he brings to patient care.



25th Anniversary Case Series

Samir F. Zakaria, D.D.S., M.S.D.

Periodontics & Dental Implants

Diplomate, American Board of Periodontology & Dental Implant Surgery

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Flapless Connective Tissue Graft (Minimally Invasive)

The Flapless Connective Tissue Graft is a minimally invasive periodontal surgical technique used to treat gingival recession. The procedure is intended to increase or stabilize attached keratinized tissue and support long-term periodontal health around the affected teeth.

Clinical Experience

Dr. Zakaria developed and has performed the minimally invasive Flapless Connective Tissue Graft technique for more than 18 years, with consistently favorable clinical outcomes and a success rate of 98%.

Technique Characteristics

- *Flapless surgical approach designed to reduce tissue reflection.*
- *Minimally invasive technique intended to limit surgical trauma.*
- *Supports predictable management of gingival recession when clinically indicated.*

Postoperative Considerations

- *May reduce postoperative pain, swelling, and discomfort.*
- *May support faster healing compared with more invasive surgical approaches.*
- *May contribute to improved soft-tissue stability and aesthetic outcomes.*



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Flapless Connective Tissue Graft (Minimally Invasive)

55-YEAR-OLD MALE · TEETH #9 AND #11

The patient presented with advanced recession, a thin tissue complex (tissue and bone), horizontal bone loss, and thermal and functional sensitivity on teeth #9 and #11.

A Flapless Connective Tissue Graft (minimally invasive) was performed, creating new, wide, thick, healthy gingival tissue. Despite the pre-existing recession, complete root coverage was achieved on both teeth, with thick keratinized tissue seamlessly integrated with the surrounding tissue.

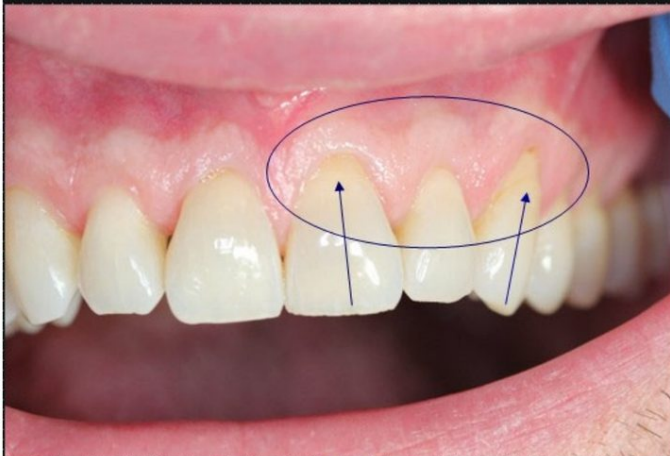
Flapless Connective Tissue Graft Minimally Invasive (No Flap Reflection)

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9 and 11



Before

Recession, Abrasion &
thin tissue



After

Creation of new keratinized tissue, increase in the
width & thickness of the gingival tissue,
& achieve a complete root coverage





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Flapless Connective Tissue Graft (Minimally Invasive)

21-YEAR-OLD MALE · TEETH #27 AND #28

The patient presented with advanced recession, a thin tissue complex (tissue and bone), horizontal bone loss, and thermal and functional sensitivity on teeth #27 and #28.

A Flapless Connective Tissue Graft (minimally invasive) was performed, creating new, wide, thick, healthy gingival tissue. Despite the pre-existing recession, complete root coverage was achieved on both teeth, with thick keratinized tissue seamlessly integrated with the surrounding tissue.

Minimally Invasive (No Flap Reflection)

Flapless Connective Tissue Graft

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27, 28 Facial



Before



After





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Flapless Connective Tissue Graft (Minimally Invasive)

43-YEAR-OLD MALE · TOOTH #23 (BRIDGE ABUTMENT, #23–26)

The patient presented with advanced recession, a thin tissue complex (tissue and bone), horizontal bone loss, and thermal and functional sensitivity on tooth #23, an abutment for the #23–26 bridge.

A Flapless Connective Tissue Graft (minimally invasive) was performed, creating new, wide, thick, healthy gingival tissue. Complete root coverage was achieved on tooth #23, with thick keratinized tissue seamlessly integrated with the surrounding tissue.

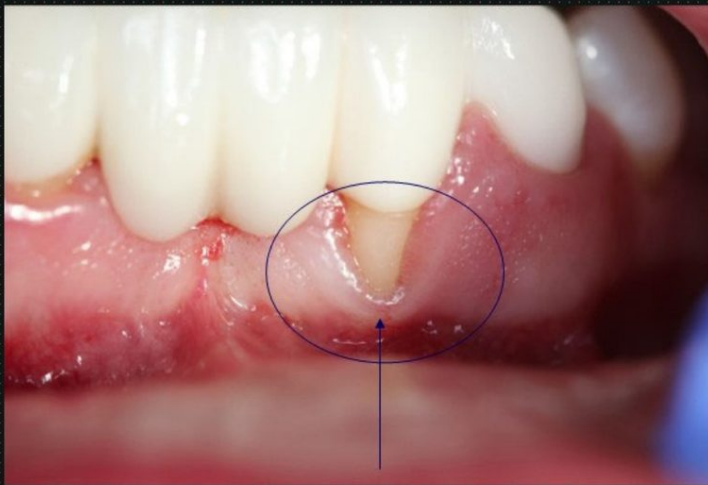
Flapless Connective Tissue Graft Minimally Invasive (No Flap Reflection)

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23 Facial



Before



After





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Flapless Connective Tissue Graft (Minimally Invasive)

33-YEAR-OLD MALE · TEETH #3, #4, #5, AND #6

The patient presented with advanced recession, a thin tissue complex (tissue and bone), horizontal bone loss, and thermal and functional sensitivity on teeth #3, #4, #5, and #6.

A Flapless Connective Tissue Graft (minimally invasive) was performed, creating new, wide, thick, healthy gingival tissue. Complete root coverage was achieved, with thick keratinized tissue seamlessly integrated with the surrounding tissue.

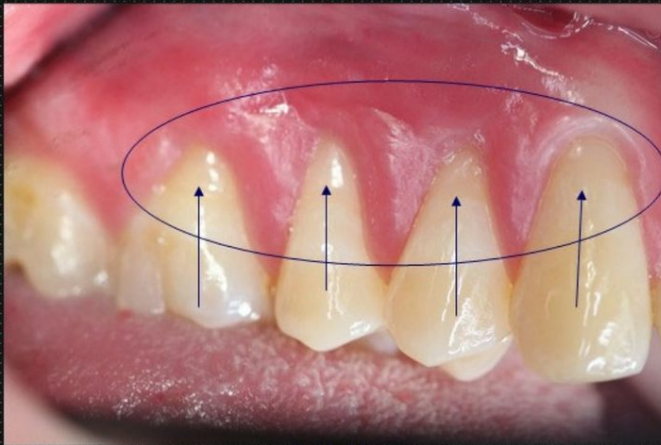
Flapless Connective Tissue Graft Minimally Invasive (No Flap Reflection)

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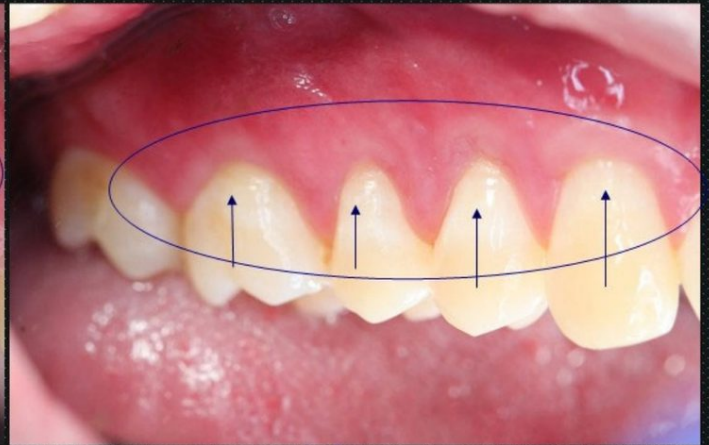
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3, 4, 5, 6,



Before

- Recession, & thin complex (tissue, & bone)
- Mucogingival defects on teeth # 3, 4, 5, & 6



After

Creation of new keratinized tissue, increase in the width & thickness of the gingival tissue, resolving the mucogingival defects and achieve **complete root coverage**





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Flapless Connective Tissue Graft (Minimally Invasive)

50-YEAR-OLD FEMALE · TEETH #20, #21, AND #22

The patient presented with advanced recession, mucogingival defects, a thin tissue complex (tissue and bone), horizontal bone loss, facial abrasion, and thermal and functional sensitivity on teeth #20, #21, and #22. Additional areas of recession were noted and will be treated in later segments.

A Flapless Connective Tissue Graft (minimally invasive) was performed, creating new, wide, thick, healthy gingival tissue. Complete root coverage was achieved on teeth #20, #21, and #22, with thick keratinized tissue seamlessly integrated with the surrounding tissue.

Flapless Connective Tissue Graft Minimally Invasive (No Flap Reflection)

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20, 21, & 22 Facial



Before



After





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Minimally Invasive Lingual Connective Tissue Graft

48-YEAR-OLD MALE · TEETH #23–26 (LINGUAL)

The patient presented with advanced lingual recession, a mucogingival defect, a lingual frenum pull, and severe thermal and functional sensitivity.

A minimally invasive Lingual Connective Tissue Graft was performed, creating new, wide, thick, healthy gingival tissue. Excellent coverage and correction of the recession and mucogingival defects were achieved on the lingual surfaces of teeth #23–26.

Minimally Invasive Lingual Connective Tissue Graft

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23, 26 lingual



Before

Recession, Mucogingival defects,
Abrasion & Thin tissue



After

Creation of new keratinized tissue, an increase in the
width & thickness of the gingival tissue,
& achieve a complete root coverage





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Minimally Invasive Lingual Connective Tissue Graft

40-YEAR-OLD FEMALE · TEETH #24 AND #25 (LINGUAL)

The patient presented with advanced recession, a thin tissue complex (tissue and bone), horizontal bone loss, and thermal and functional sensitivity on the lingual of teeth #24 and #25, due to trauma from a tongue ring.

A minimally invasive procedure was performed, creating new, wide, thick, healthy gingival tissue. Despite the pre-existing recession, complete coverage was achieved on teeth #24 and #25, with thick keratinized tissue seamlessly integrated with the surrounding tissue.

Minimally Invasive Connective Tissue Graft

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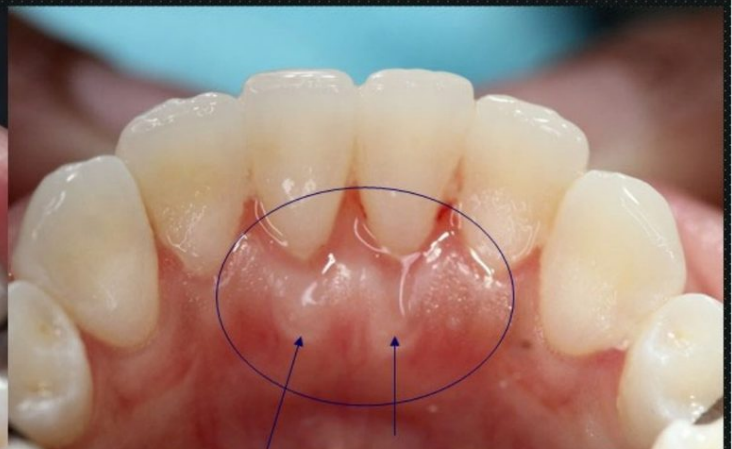
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24, 25 Lingual



Before



After





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Minimally Invasive Connective Tissue Graft on Implants

25-YEAR-OLD FEMALE · IMPLANT #9

The patient presented with recession on implant #9. Examination and radiographs revealed that the damage was caused by an Invisalign tray impinging on the tissue.

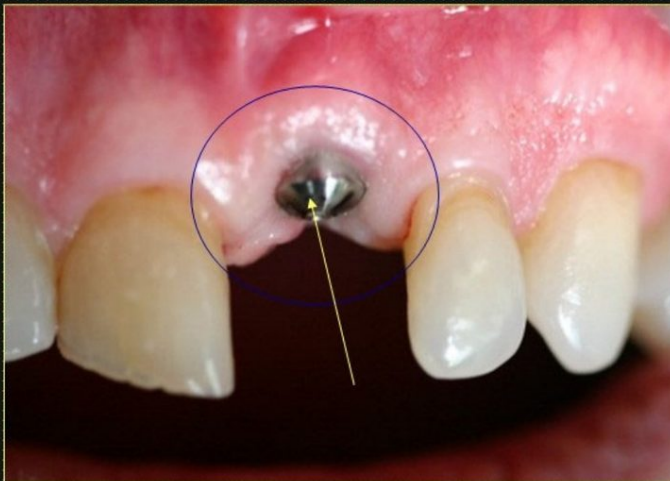
A minimally invasive procedure was performed, creating new, wide, thick, healthy gingival tissue. Complete coverage was achieved on implant #9, with thick keratinized tissue seamlessly integrated with the surrounding tissue.

Minimally Invasive Connective Tissue Graft on Implants

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CTG # 9



Before

Recession on the Implant, due to trauma
from Invisalign tray



After

Creating a new gingival tissue on the Facial
surface of the implant, and correcting the
gingival defect





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Minimally Invasive Guided Tissue Regeneration

Guided Tissue Regeneration Around Teeth (Rebuilding Bone Around Teeth)

Minimally Invasive Guided Tissue Regeneration is a newer periodontal treatment designed to help save and maintain teeth that may otherwise be considered for extraction.

Why It Matters

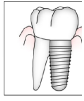
Periodontal disease is a bacterial infection that can destroy the bone and supporting tissues around teeth and dental implants. When this damage progresses, teeth that once seemed unsalvageable may still be preserved with the right regenerative approach.

Treatment Benefits

- *Helps preserve teeth that were previously considered for extraction.*
- *Supports regeneration of damaged periodontal tissues and bone.*
- *Offers a minimally invasive treatment option with a reported success rate above 95%.*

No Laser Required

This technique does not rely on laser treatment, allowing the focus to remain on guided regeneration and tissue preservation.



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Minimally Invasive Guided Tissue Regeneration

Rebuilding Bone Around Teeth

70-YEAR-OLD MALE · TOOTH #19

The patient presented with advanced bone loss, an 8 mm pocket depth, vertical bone loss, and Grade II furcation involvement around tooth #19.

Guided tissue regeneration was performed successfully, achieving complete bone regeneration and reducing the pocket depth to 3–4 mm around tooth #19.

Guided Tissue Regeneration

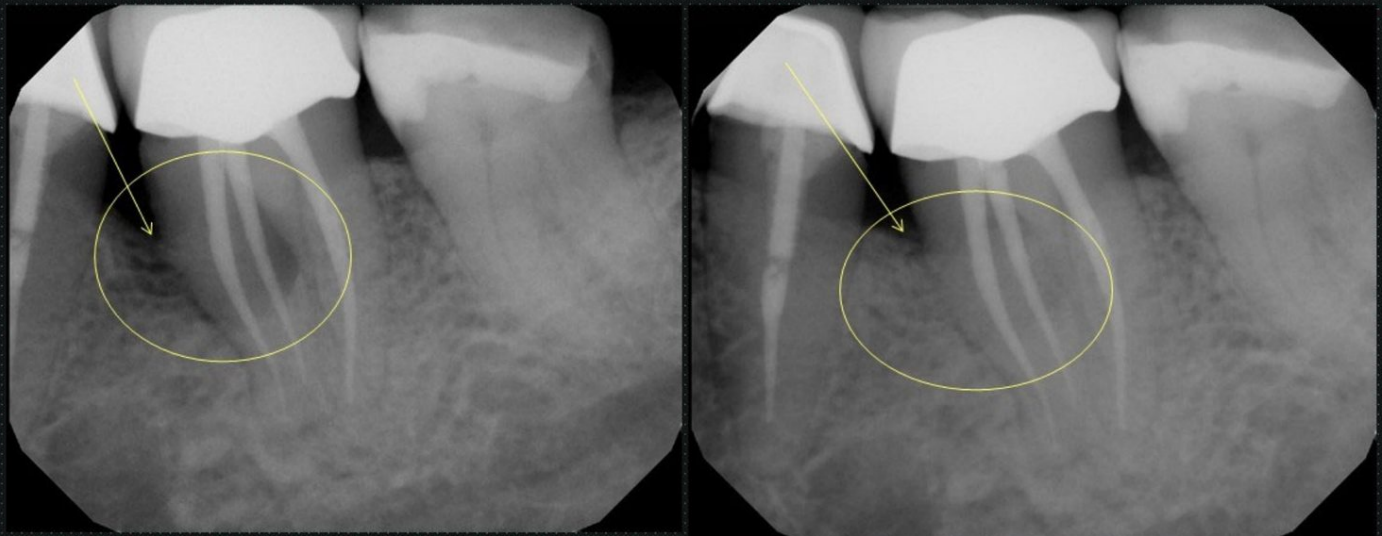
Rebuilding Bone Around Teeth

Courtesy of Samir F. Zakaria, D.D.S., M.S.D

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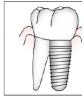
GTR # 19



■ Before

■ After





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Minimally Invasive Guided Tissue Regeneration

Rebuilding Bone Around Teeth

69-YEAR-OLD FEMALE · TOOTH #31 (DISTAL)

The patient presented with advanced bone loss, an 8 mm pocket depth, and vertical bone loss on the distal of tooth #31.

Minimally invasive guided tissue regeneration was performed successfully, achieving complete bone regeneration and reducing the pocket depth to 3–4 mm around tooth #31.

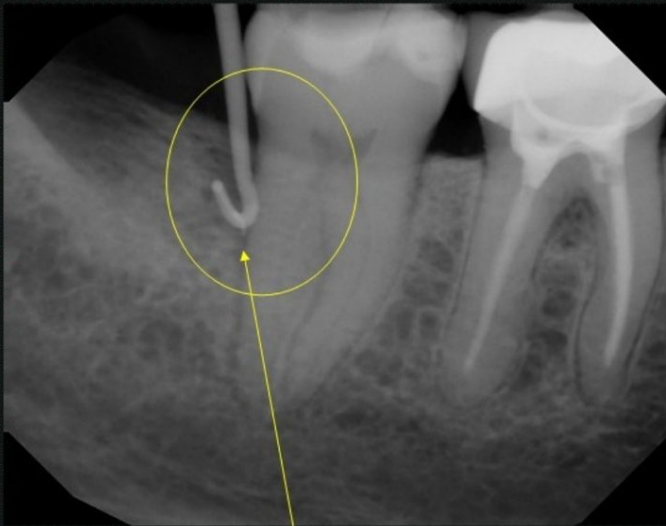
Guided Tissue Regeneration (Rebuilding Bone Around Teeth) Minimally Invasive Procedure

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Tooth # 31 Distal

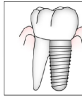


Indicator showing advanced bone loss,
8 mm Pocket depth



New bone Formation
Pocket depth 3 mm





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Minimally Invasive Guided Tissue Regeneration

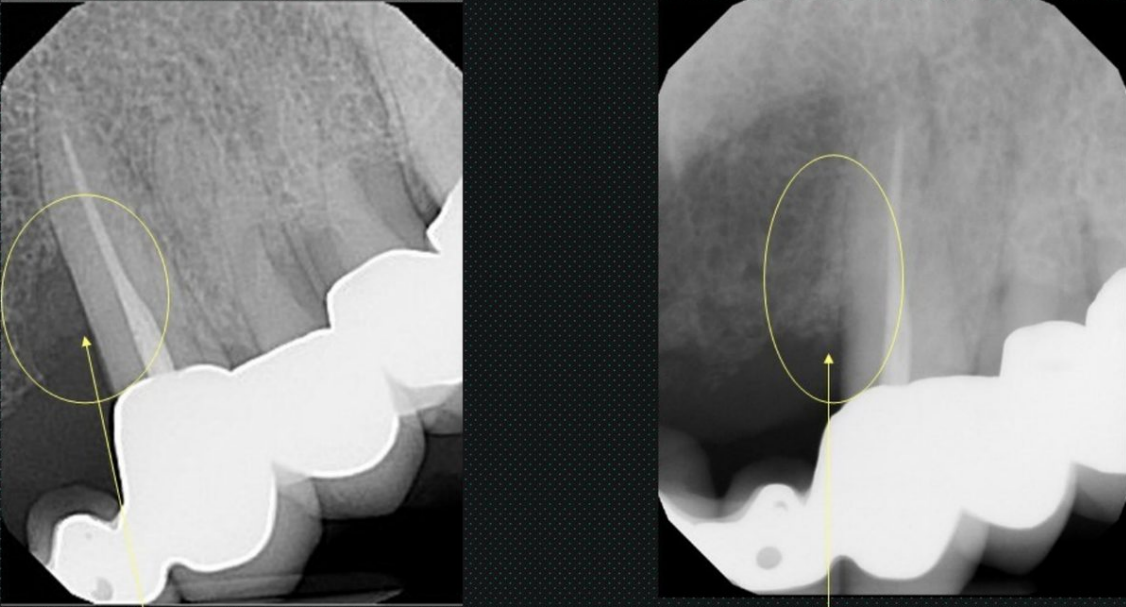
Rebuilding Bone Around Teeth

83-YEAR-OLD MALE · TOOTH #11 (MESIAL; BRIDGE ABUTMENT, #6–11)

The patient presented with advanced bone loss, a 10 mm pocket depth, and vertical bone loss on the mesial of tooth #11, an abutment for the #6–11 bridge. The patient was not interested in an implant.

Minimally invasive guided tissue regeneration was performed successfully, achieving complete bone regeneration and reducing the pocket depth to 3–4 mm around tooth #11.

Guided Tissue Regeneration (Rebuilding Bone Around Teeth)
Minimally Invasive Procedure
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11



 Large Bony Defect

New Bone



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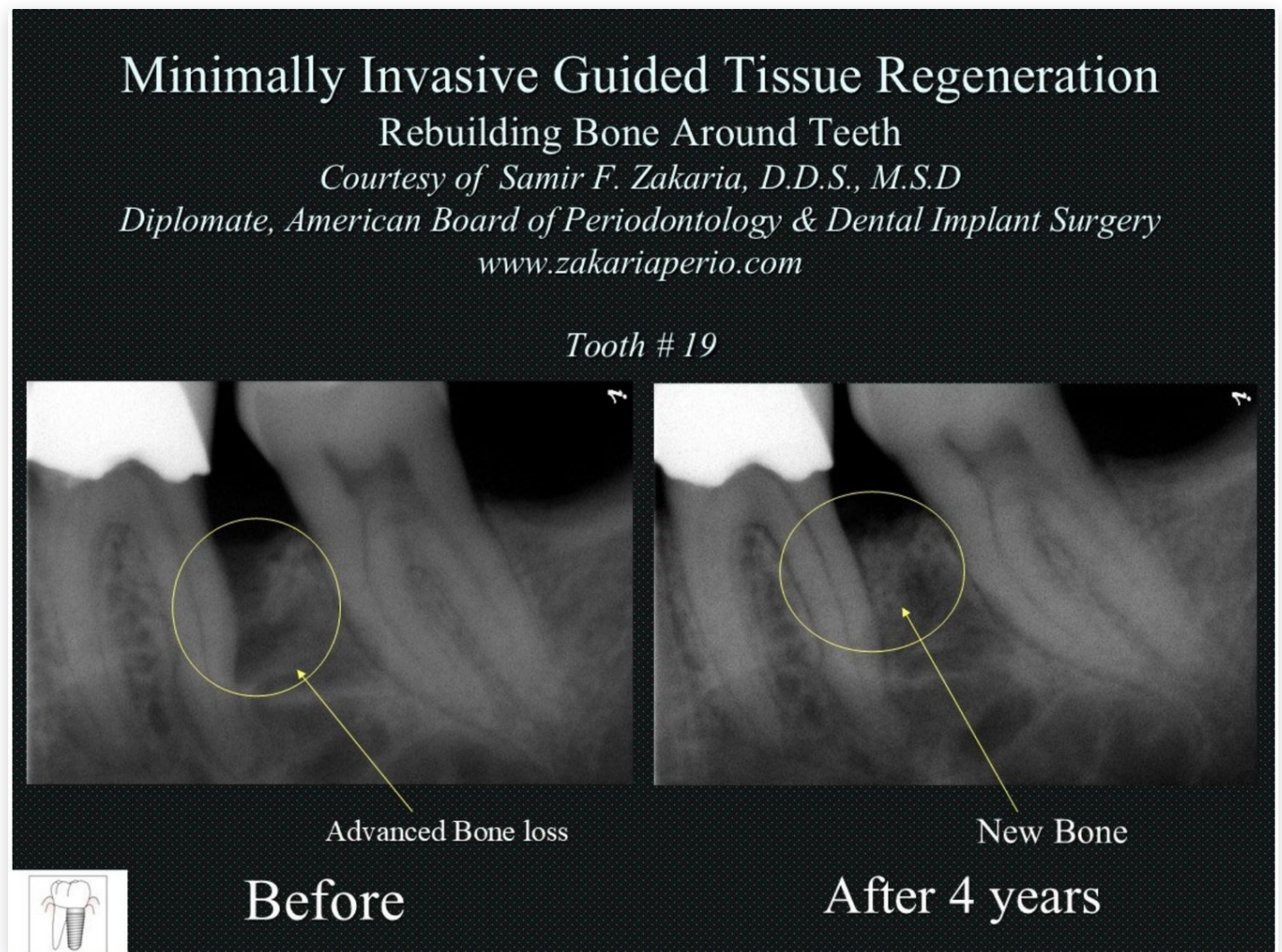
Minimally Invasive Guided Tissue Regeneration

Rebuilding Bone Around Teeth

57-YEAR-OLD MALE · TOOTH #19 (DISTAL)

The patient presented with advanced bone loss, an 8 mm pocket depth, and vertical bone loss on the distal of tooth #19.

Minimally invasive guided tissue regeneration was performed successfully, achieving complete bone regeneration and reducing the pocket depth to 3–4 mm around tooth #19.





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Treatment of Failing Implants (Minimally Invasive Surgery)

Guided Bone Regeneration Around Implants (Rebuilding Bone Around Implants)

Peri-Implantitis and Minimally Invasive Guided Bone Regeneration

Minimally Invasive Guided Bone Regeneration has been utilized by Dr. Zakaria for more than 16 years as a regenerative approach for the management of peri-implant bone defects, with favorable clinical outcomes.

Clinical Background

Peri-implantitis is an inflammatory condition associated with bacterial biofilm accumulation that results in progressive loss of supporting bone around dental implants. If left untreated, peri-implant bone loss may compromise implant stability, function, and long-term prognosis.

Contributing Factors

In addition to microbial factors, traumatic occlusion may contribute to peri-implant bone loss by increasing biomechanical stress at the implant–bone interface. Comprehensive assessment of both biologic and occlusal factors is therefore important in treatment planning.

Treatment Approach

Minimally invasive guided bone regeneration is performed to reconstruct peri-implant bone defects while limiting surgical trauma. When clinically indicated, this approach may represent an effective treatment option for enhancing hard-tissue support and improving the long-term prognosis of affected implants.



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Treatment of Failing Implants

Guided Bone Regeneration Around Implants

56-YEAR-OLD FEMALE · IMPLANTS #4 AND #5 (PLACED ~10 YEARS EARLIER)

The patient presented with advanced bone loss around implants #4 and #5, with a 5–9 mm pocket depth.

Guided bone regeneration was performed with great success, achieving excellent bone regeneration around both implants and reducing the pocket depth to 3–4 mm.

Minimally Invasive Treatment of Failing Implants Rebuilding Bone Around Implants

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4, and 5 Implants



Before
Bone loss (Implantitis)



After
New Bone





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Treatment of Failing Implants

Guided Bone Regeneration Around Implants

27-YEAR-OLD FEMALE · IMPLANT #10 (PLACED ~8 YEARS EARLIER)

The patient presented with advanced bone loss around implant #10, with a 5–8 mm pocket depth.

Guided bone regeneration was performed with great success, achieving excellent bone regeneration around the implant and reducing the pocket depth to 3–4 mm.

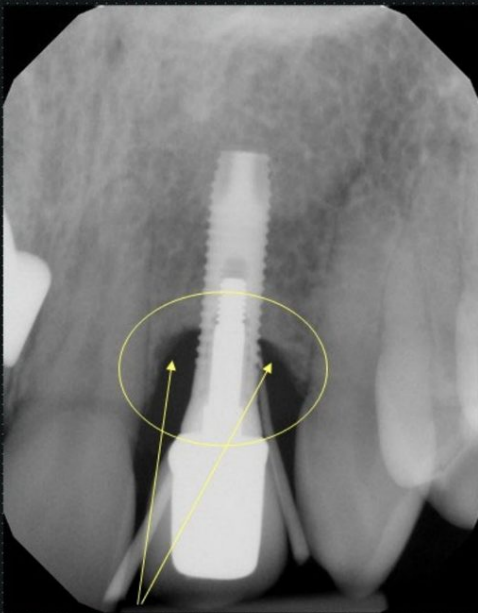
Treatment of Failing Implants *Rebuilding Bone Around Implants*

Courtesy of Samir F. Zakaria, D.D.S., M.S.D

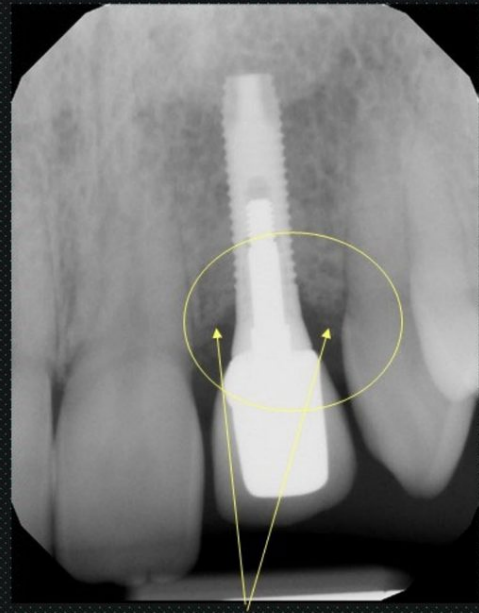
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10



Bone loss
Before



New Bone
After





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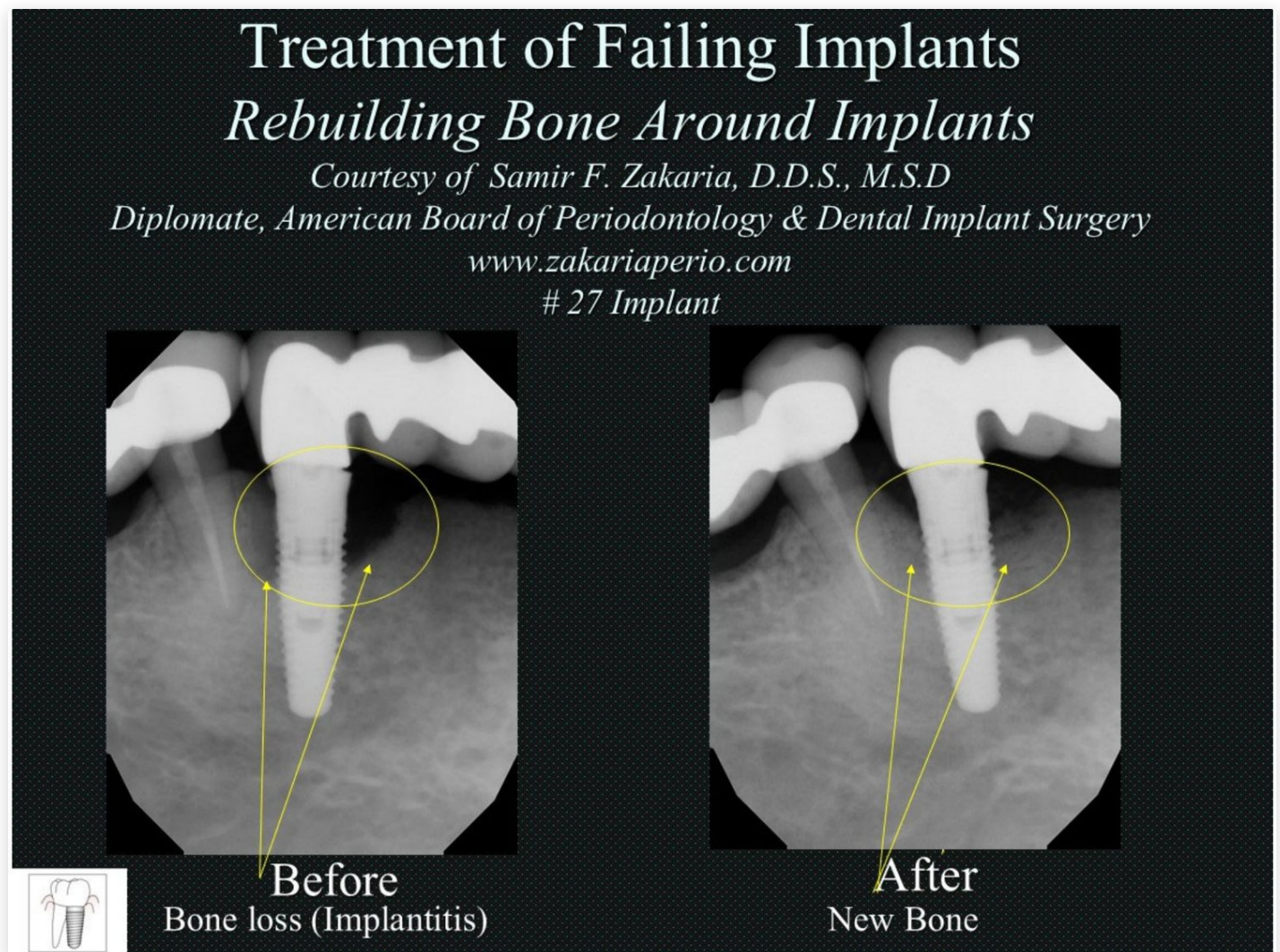
Treatment of Failing Implants

Guided Bone Regeneration Around Implants

41-YEAR-OLD MALE · IMPLANT #27

The patient presented with advanced bone loss around implant #27, with a 7–9 mm pocket depth.

Guided bone regeneration was performed with great success, achieving excellent bone regeneration around the implant and reducing the pocket depth to 3–4 mm.





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Minimally Invasive Periodontal Plastic Surgery

Dr. Zakaria has performed Minimally Invasive Periodontal Plastic Surgery with sustained clinical success over a period exceeding 30 years.

Indications and Treatment Objectives

Minimally Invasive Periodontal Plastic Surgery may be indicated for the correction of excessive gingival display, commonly referred to as a gummy smile, prior to the placement of anterior restorations or without. The procedure is intended to support both functional rehabilitation and aesthetic enhancement.

Procedural Characteristics and Patient Outcomes

- *Does not require the use of laser-based intervention.*
- *Employs a minimally invasive surgical technique.*
- *Is associated with reduced intraoperative and postoperative discomfort.*
- *Decreases postoperative pain, swelling, and overall morbidity.*



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Minimally Invasive Periodontal Plastic Surgery

19-YEAR-OLD FEMALE

The patient presented for a smile evaluation with a chief complaint of a gummy smile and a desire for a more balanced smile.

Minimally invasive periodontal plastic surgery was performed with excellent results. The patient was very happy with her new smile.

Minimally Invasive Periodontal Plastic Surgery

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■ **Before**

■ **After**





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Minimally Invasive Periodontal Plastic Surgery

50-YEAR-OLD FEMALE

The patient presented for a smile evaluation with a chief complaint of a gummy smile and a desire for a more balanced smile.

Minimally invasive periodontal plastic surgery was performed with excellent results. The patient was very happy with her new smile.

Minimally Invasive Periodontal Plastic Surgery

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■ Before



■ After





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Minimally Invasive Ridge Augmentation

Dr. Zakaria developed Minimally Invasive Ridge Augmentation, a technique with a reported success rate of more than 97% over 33 years. He performed one of the first procedures of its kind in the country in 1993–1994 while a resident at Indiana University.

Why Ridge Augmentation Matters

Ridge augmentation is an essential step when placing implants in an atrophic ridge, where bone loss has occurred after tooth loss. This loss of alveolar bone may result from several factors:

- *Dental caries*
- *Infections*
- *Periodontal disease*
- *Traumatic fractures*
- *Traumatic tooth removal*
- *The size and extent of the infection*

Treatment Benefits

The minimally invasive approach can restore all or most of the lost bone needed to support dental implants and, ultimately, replacement teeth. This helps restore both function and aesthetics for patients.

Advantages of the Minimally Invasive Approach

Minimally Invasive Ridge Augmentation does not rely on block grafts, titanium mesh, tacks, tenting screws, stabilization screws, or custom 3D-fabricated and milled bone graft blocks designed to match the defect. Custom 3D-fabricated and milled bone grafts typically take six to eight weeks to produce and may cost between \$3,000 and \$5,000.



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Dental Implant Treatment

Dental implant treatment has advanced significantly over the past 40 years, offering patients more predictable, comfortable, and natural-looking results.

Our Approach

Dr. Zakaria has developed and implemented advanced minimally invasive surgical techniques designed to support excellent esthetic and functional outcomes. It works on preventing any bone loss around the implant resulting lasting results. Our office also uses dental implants from one of the most reputable and well-known manufacturers in the United States.

Our Philosophy

At our office, we do more than place implants — we create implants that are designed to look, feel, and function like Natural Teeth.



— 25th Anniversary Case Series

Samir F. Zakaria, D.D.S., M.S.D.

Periodontics & Dental Implants

Diplomate, American Board of Periodontology & Dental Implant Surgery

Minimally Invasive Ridge Augmentation

71-YEAR-OLD FEMALE · TEETH #3, #6, AND #7

The patient presented with advanced bone loss and hopeless teeth #3, #6, and #7.

Atraumatic surgical extractions and ridge augmentation were performed successfully, leading to uneventful healing and excellent new bone formation. Implants were placed, and custom-milled abutments and temporary crowns were added, yielding excellent results. No tacks, screws, titanium mesh, or block graft were used.

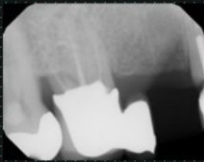
Minimally Invasive Ridge Augmentation

Courtesy of Samir F. Zakaria, D.D.S., M.S.D

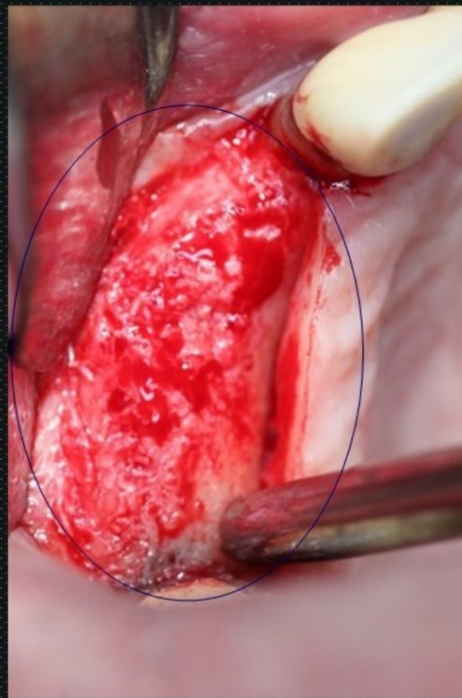
Diplomate, American Board of Periodontology & Dental implant surgery

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Area # 3,4,5, 6, 7



Before



After





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Minimally Invasive Ridge Augmentation

Maxillary Arch Implant Reconstruction

70-YEAR-OLD MALE · TEETH #8 AND #9

The patient presented for evaluation of implants in the area of teeth #8 and #9. Examination and radiographs revealed heavily restored teeth #8 and #9, along with a suspicious lesion on the mesial of tooth #9. He reported that the tooth had shifted over the summer and returned to position after he applied pressure with his tongue over time. A CBCT scan was taken.

Minimally Invasive Ridge Augmentation was performed. The bone in the area of tooth #9 was very soft and extended to the mesial of tooth #8; after debridement, there was substantial bone loss in the #8–9 area extending into the nasopalatine canal. Healing progressed uneventfully, new bone was built, and implants were placed. The area healed well, with excellent results. The next step is restorative treatment.

✗ No Tacks ✗ No Tenting or Stabilization Screws ✗ No Titanium Mesh ✗ No Milled Block Graft ✗ No Block Graft

Minimally Invasive Ridge Augmentation, & Implant Placement

Courtesy of Samir F. Zakaria, D.D.S., M.S.D.
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8 and 9



Advanced bone loss



Minimally invasive Ridge Augmentation, & Implant Placement

Courtesy of Samir F. Zakaria, D.D.S., M.S.D

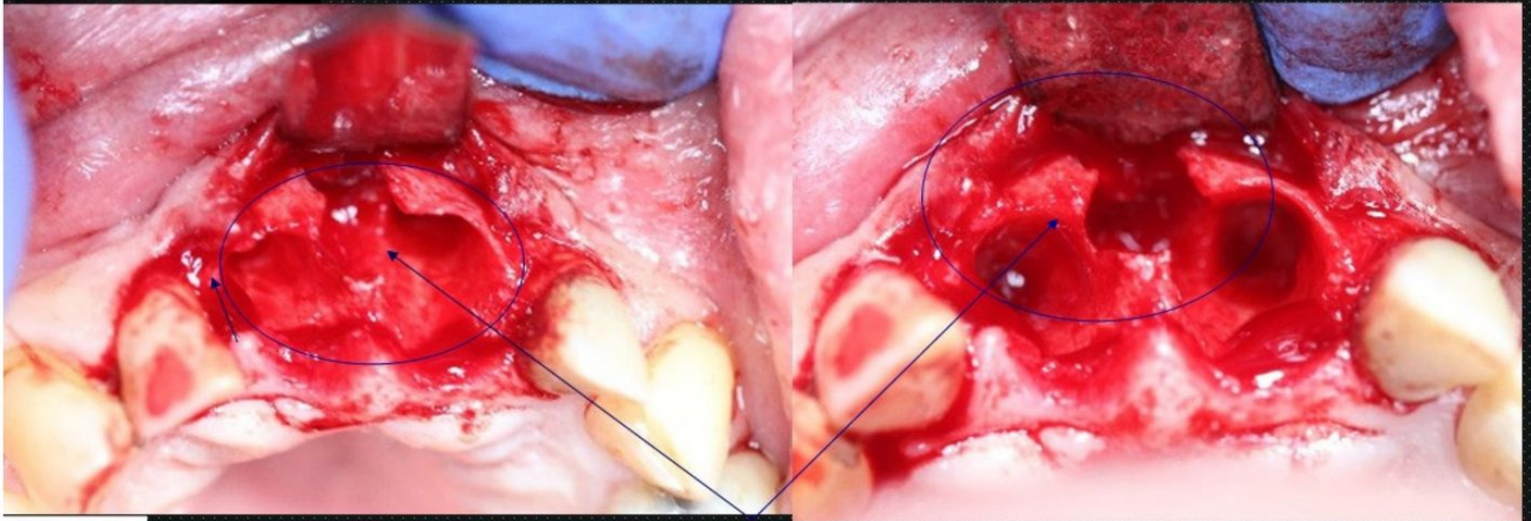
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8 and 9



Before Treatment



Advanced bone loss

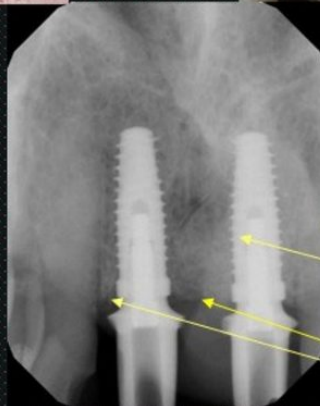
Minimally Invasive Ridge Augmentation, & Implant Placement

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8 and 9



After Treatment

- New Bone
- No bone loss

■ Page 3



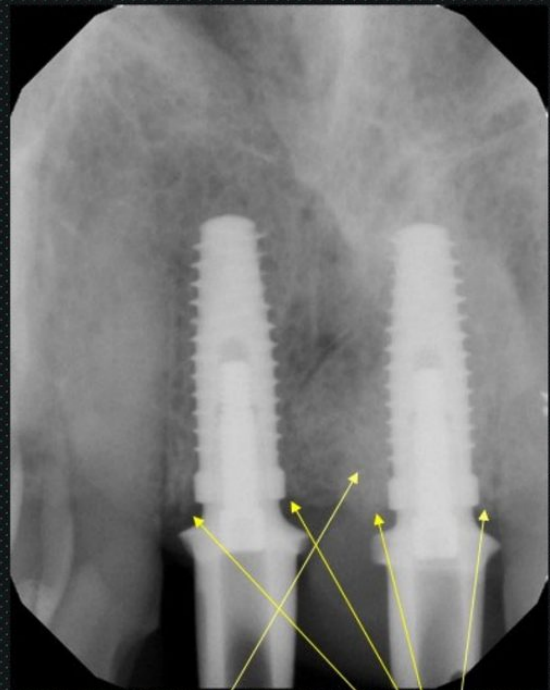
Minimally Invasive Ridge Augmentation, & Implant Placement

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8 and 9



Advanced bone loss



New Bone

After

No bone loss

■ Page 4



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Periodontics & Dental Implants

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Minimally Invasive Ridge Augmentation

Implant Placement & Provisional Crown

48-YEAR-OLD PATIENT · TOOTH #8

The patient presented for evaluation of an implant in the area of tooth #8. Examination and radiographs revealed a heavily restored tooth #8 with a horizontal fracture extending deep enough to cause loss of a portion of the buccal bone.

Atraumatic removal of tooth #8 with Minimally Invasive Ridge Augmentation was performed. Healing progressed uneventfully, new bone was built, and an implant was placed. The area healed well, with excellent results. The next step is restorative treatment.

✗ No Tacks ✗ No Tenting or Stabilization Screws ✗ No Titanium Mesh ✗ No Milled Block Graft ✗ No Block Graft

Minimally Invasive Ridge Augmentation, Implant Placement & Provisional Restoration

Courtesy of Samir F. Zakaria, D.D.S., M.S.D.
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8



Before

Minimally Invasive Ridge Augmentation, Implant Placement & Provisional Restoration

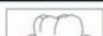
Courtesy of Samir F. Zakaria, D.D.S., M.S.D
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8



Before



Minimally Invasive Ridge Augmentation, Implant Placement & Provisional Restoration

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#8



After

Ridge Augmentation, Implant Placement & Provisional Restoration

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8



Before

After



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Periodontics & Dental Implants

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Minimally Invasive Ridge Augmentation

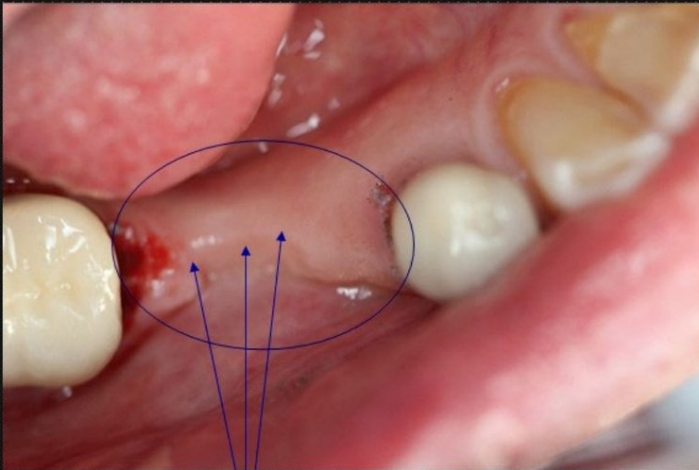
65-YEAR-OLD MALE · TEETH #29 AND #30

The patient presented with advanced bone loss under a failing bridge. The bridge was removed, and because teeth #29 and #30 had been extracted 30 years earlier, a knife-edge ridge was present.

Minimally Invasive Ridge Augmentation was performed successfully, leading to uneventful healing. A new, wide ridge and bone were built, and implants were placed in the areas of teeth #29 and #30, resulting in excellent results.

✗ No Tacks ✗ No Tenting or Stabilization Screws ✗ No Titanium Mesh ✗ No Milled Block Graft ✗ No Block Graft

Minimally Invasive Ridge Augmentation
Courtesy of Samir F. Zakaria, D.D.S., M.S.D
Diplomate, American Board of Periodontology
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29-30



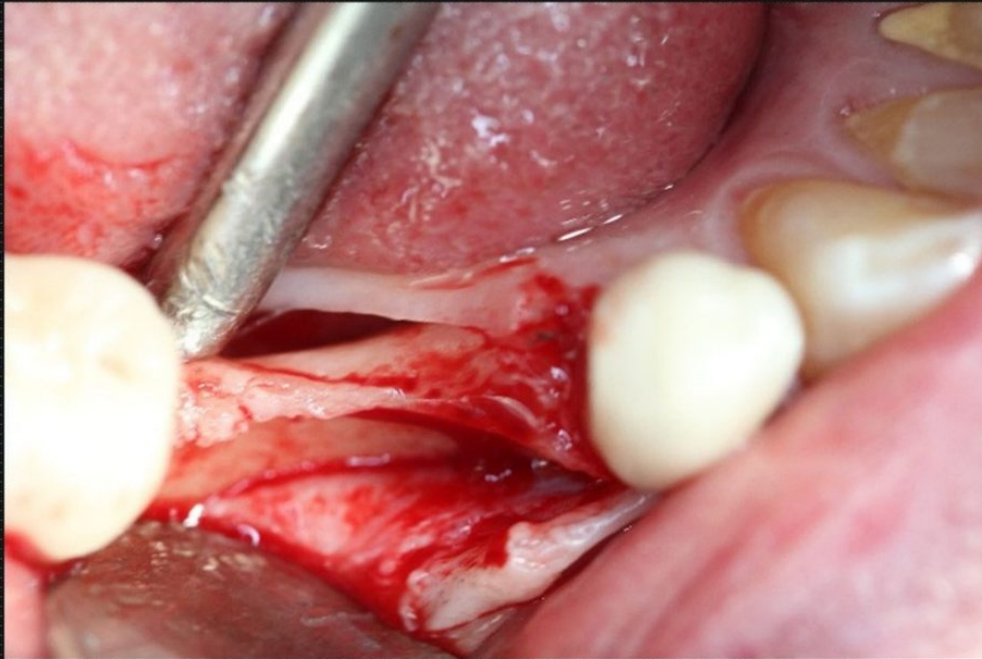
Note the horizontal Bone Loss



Before



Minimally Invasive Ridge Augmentation
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29-30

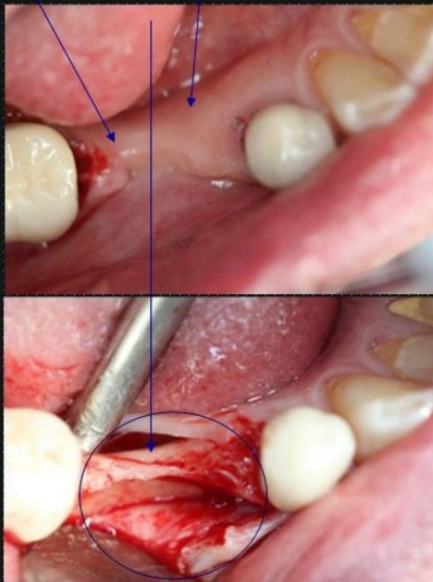


Before Note the horizontal Bone Loss. Note the knife-edge bone ridge

Minimally Invasive Ridge Augmentation

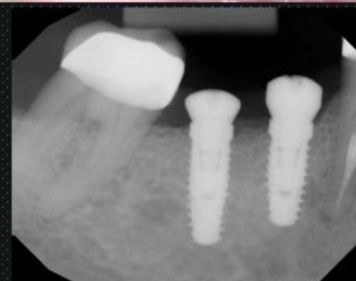
Courtesy of Samir F. Zakaria, D.D.S., M.S.D
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29-30

Note the Advanced horizontal bone Loss
(knife- edge)



Before

Note the correction of the Large Horizontal
Bone loss . (New Bone)



After



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Minimally Invasive Ridge Augmentation

Maxillary Arch Implant Reconstruction

78-YEAR-OLD MALE · TEETH #5, #6, #8, #9, #11, AND #13 (FAILING BRIDGE, #4–12)

The patient presented with advanced bone loss under a failing #4–12 bridge, which was removed. Because teeth #6–11 had been extracted long ago, a knife-edge ridge was present, and tooth #12 had extensive caries.

Minimally Invasive Ridge Augmentation was performed successfully, leading to uneventful healing. A new, wide ridge and bone were built, and implants were placed in the areas of teeth #5, #6, #8, #9, #11, and #13, resulting in excellent results.

✗ No Tacks ✗ No Tenting or Stabilization Screws ✗ No Titanium Mesh ✗ No Milled Block Graft ✗ No Block Graft

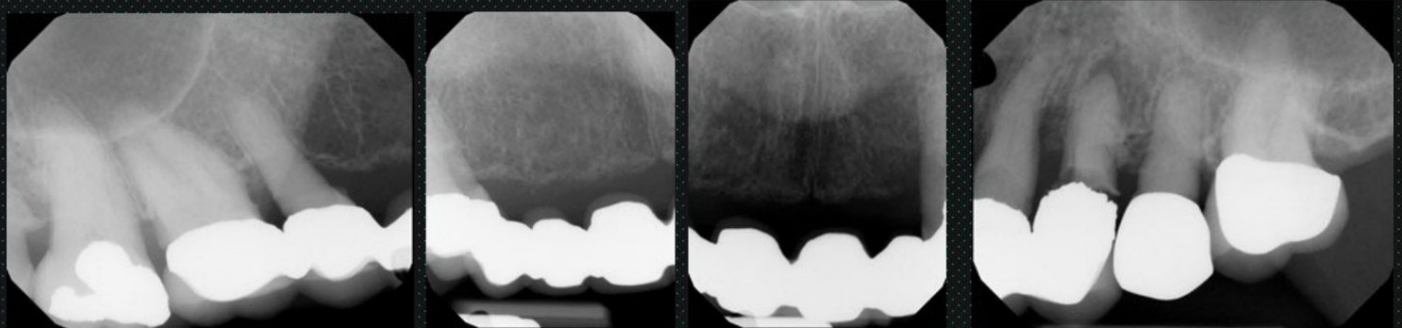
Minimally Invasive Ridge Augmentation/ Implant Treatment

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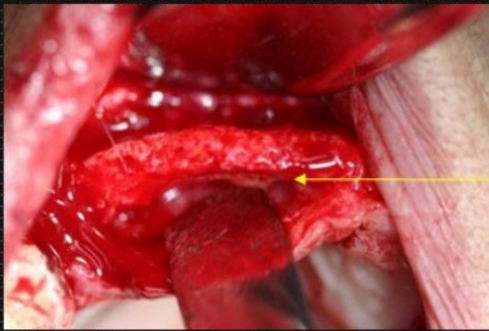
5-13



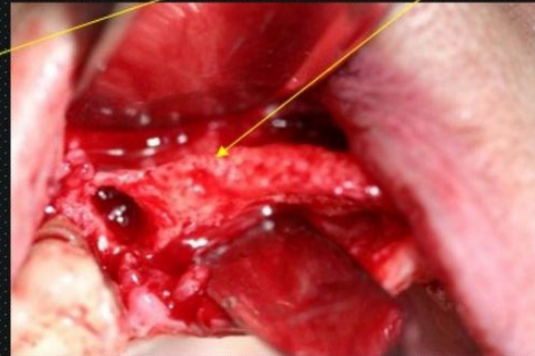
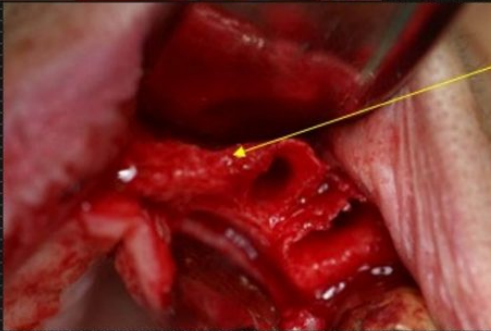
Minimally Invasive Ridge Augmentation/ Implant Treatment

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5-13



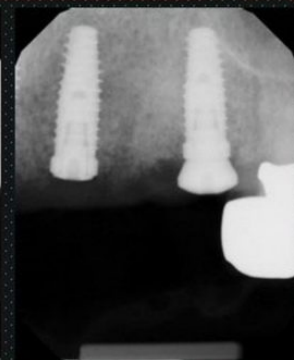
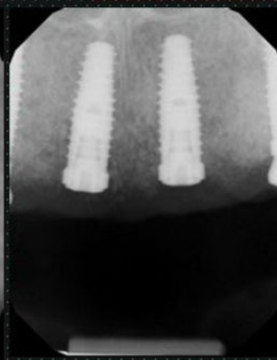
Advanced
Bone
Loss



Minimally Invasive Ridge Augmentation/ Implant Treatment

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5, 6, 8, 9, 11, 13



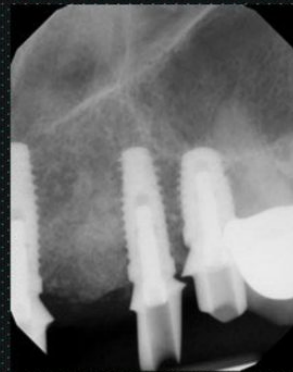
Minimally Invasive Ridge Augmentation/ Implant Treatment

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5-13



Laser Milled
Titanium Abutments



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5-13



Implant Ready to Be
Restored



Laser Milled Titanium
Abutments



Temporary Crowns



New Bone



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5-13





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Full Mouth Implant Reconstruction

Minimally Invasive Ridge Augmentation & Sinus Elevation — 18-Year Follow-Up

38-YEAR-OLD FEMALE (TREATED IN EARLY 2008) · FULL-ARCH RECONSTRUCTION

In early 2008, a 38-year-old female patient presented with advanced bone loss affecting all of her teeth, which had a hopeless prognosis. After extensive diagnostic evaluation, multiple implant restoration options were presented, and the patient chose a maxillary fixed implant restoration (8 implants) with a mandibular 6-implant restoration using a High-Water design.

Minimally Invasive Ridge Augmentation was performed successfully with extractions, leading to uneventful healing, followed by bilateral sinus elevations. A new, wide ridge and bone were built, implants were placed, and restorations were completed, resulting in excellent results. The patient has been followed closely every 3 months; this is her 18-year follow-up, and notably there has been no bone loss around the implants.

✗ No Tacks ✗ No Tenting or Stabilization Screws ✗ No Titanium Mesh ✗ No Milled Block Graft ✗ No Block Graft

Full Mouth Implant Reconstruction / Minimally Invasive Ridge Augmentation

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1/2008

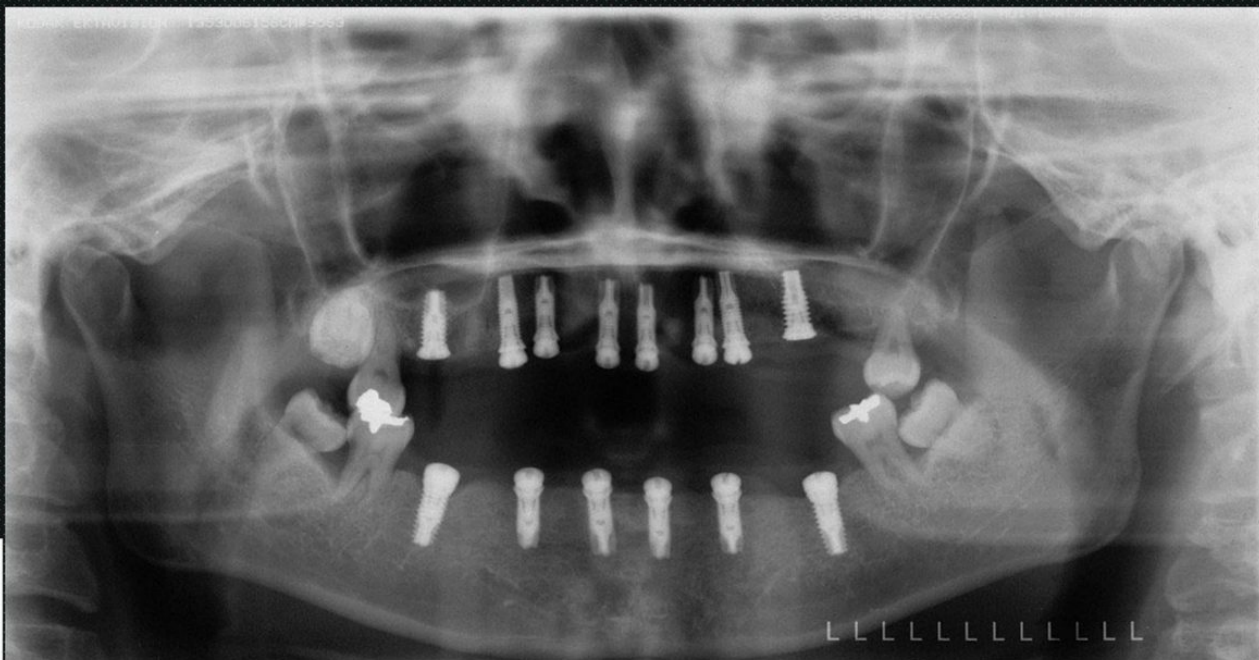


Full Mouth Implant Reconstruction / Minimally Invasive Ridge Augmentation

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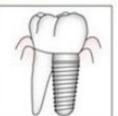


Full Mouth Implant Reconstruction / Minimally Invasive Ridge Augmentation

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Full Mouth Implant Reconstruction / Minimally Invasive Ridge Augmentation

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Full Mouth Implant Reconstruction / Minimally Invasive Ridge Augmentation

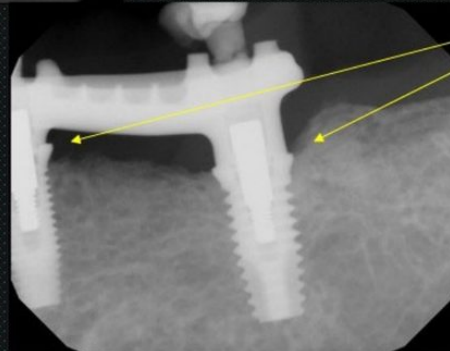
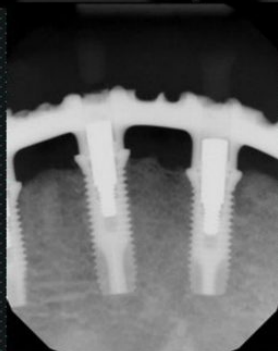
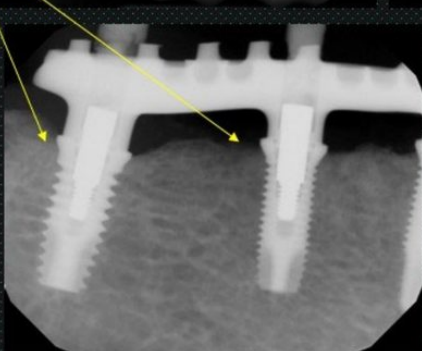
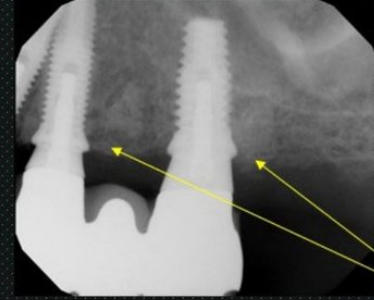
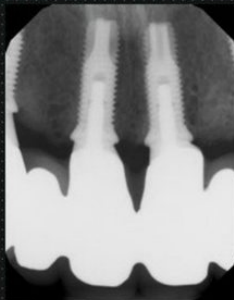
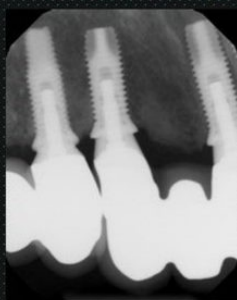
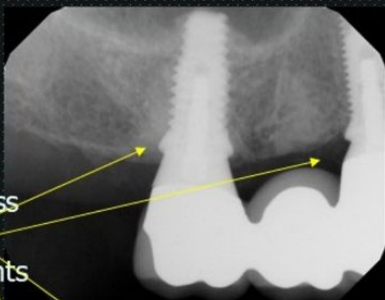
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7-12-2025

No Bone Loss
18 Years
After Implants
Placement





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Periodontics & Dental Implants

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Severely Pneumatized Sinus Elevation

54-YEAR-OLD FEMALE · TOOTH #3 AND IMPLANTS #4 AND #5

The patient presented with restorations and implants in the area of tooth #3, as well as implants #4 and #5. Examination and radiographs revealed that implants #4 and #5 were situated within the sinus with minimal bone support, accompanied by crestal bone loss, rendering tooth #3 and implants #4 and #5 hopeless.

Tooth #3 and implants #4 and #5 were removed, allowing the area to heal. Given the severely pneumatized sinus and only 1 mm of remaining bone, a sinus elevation procedure was carried out. New bone was created in the maxillary sinus, a ridge augmentation was performed, and three implants were placed. The restoration process was completed successfully, and the patient is very pleased with the results and her new teeth.

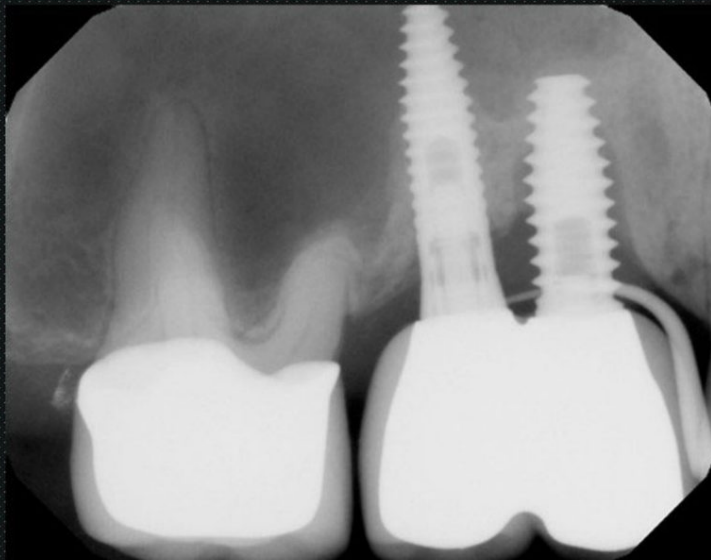
Sinus Elevation, Minimally Invasive Ridge Augmentation & Implant Treatment

Courtesy of Samir F. Zakaria, D.D.S., M.S.D

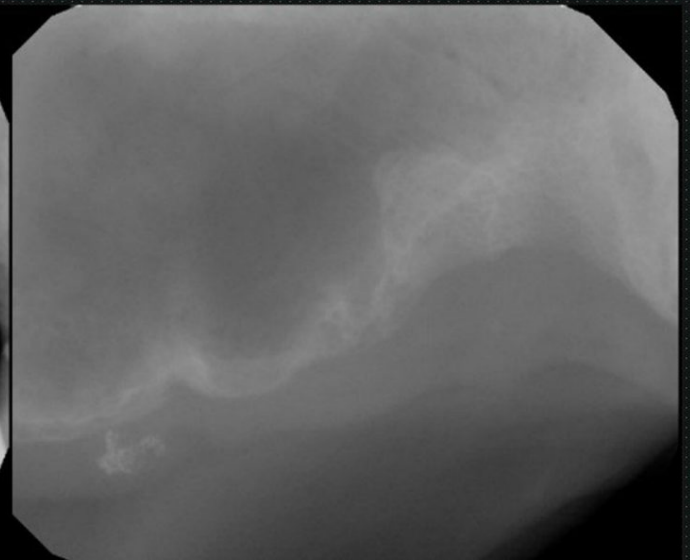
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3, 4, 5,



■ Before



■ After tooth and implants
removal



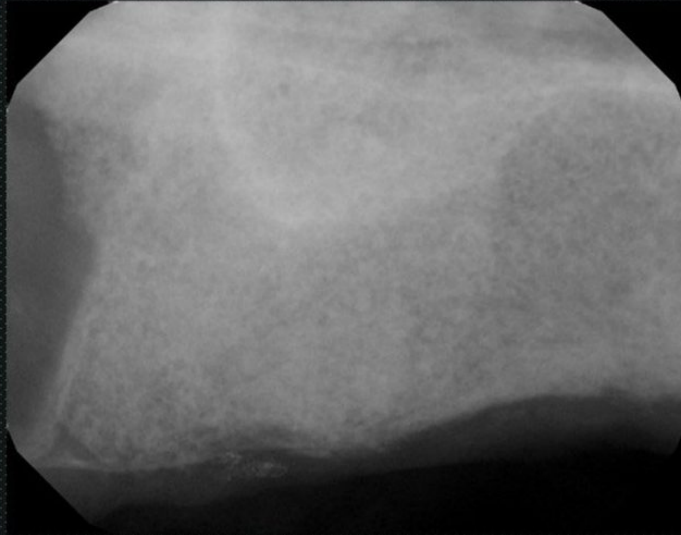
Sinus Elevation, Minimally Invasive
Ridge Augmentation & Implant Treatment

Courtesy of Samir F. Zakaria, D.D.S., M.S.D

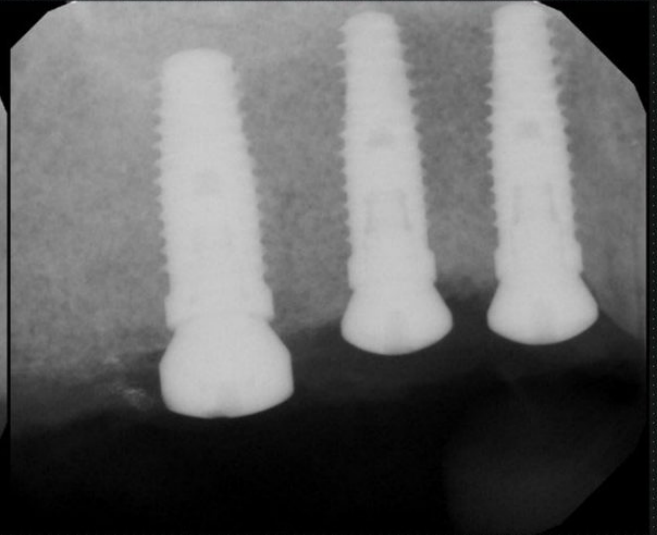
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3, 4, 5,



After Sinus Elevation



After Implant
Placement



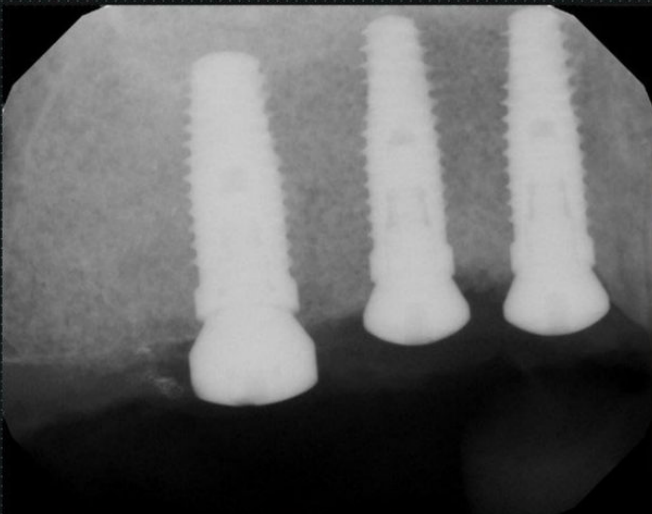
Sinus Elevation, Minimally Invasive
Ridge Augmentation & Implant Treatment

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3, 4, 5,



After Implant Restorations





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Minimally Invasive Ridge Augmentation, Implant Placement & Provisional Implant Restoration

54-YEAR-OLD FEMALE · TEETH #27 AND #30

The patient, a 54-year-old female, had a fractured root on tooth #27 and advanced periodontitis on tooth #30, with extensive bone loss and a large radiolucency near these teeth — all deemed hopeless.

Atraumatic surgical extractions and ridge augmentation were performed successfully, resulting in uneventful healing and new bone formation. Implants and temporary crowns were placed with great results.

- ✗ No Tack
- ✗ No Tenting or Stabilization Screws
- ✗ No Titanium Mesh
- ✗ No Autogenous Bone (no second surgery to harvest bone)

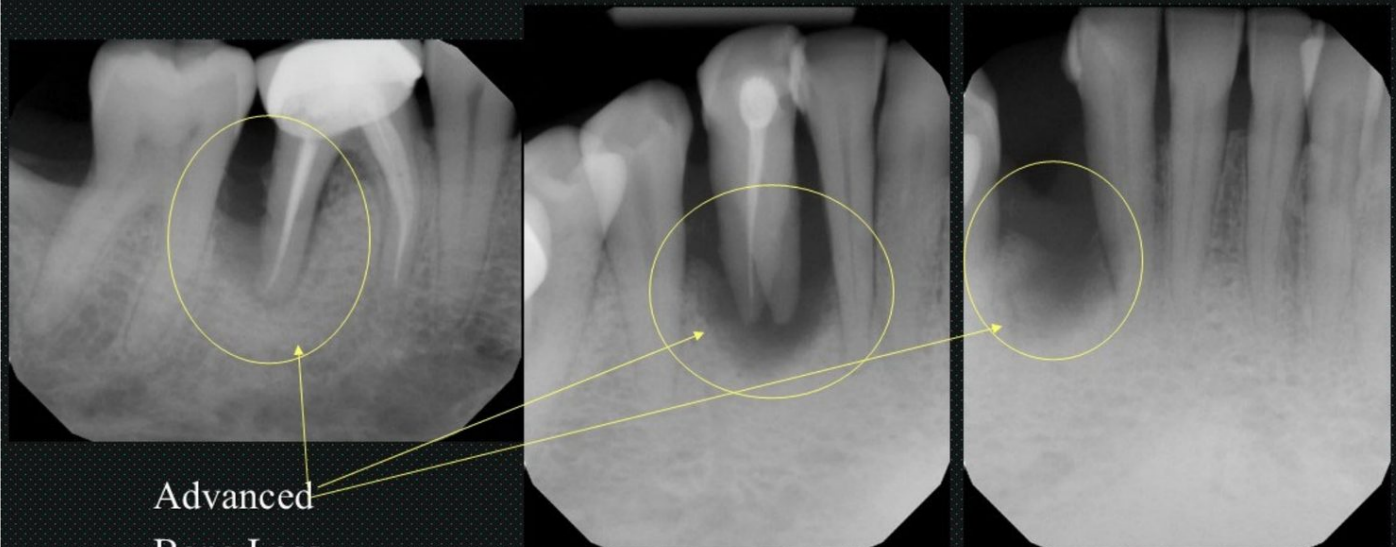
Minimally Invasive Ridge Augmentation, Implant Placement & Provisional Implant Restoration

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27 & 30



Advanced
Bone Loss

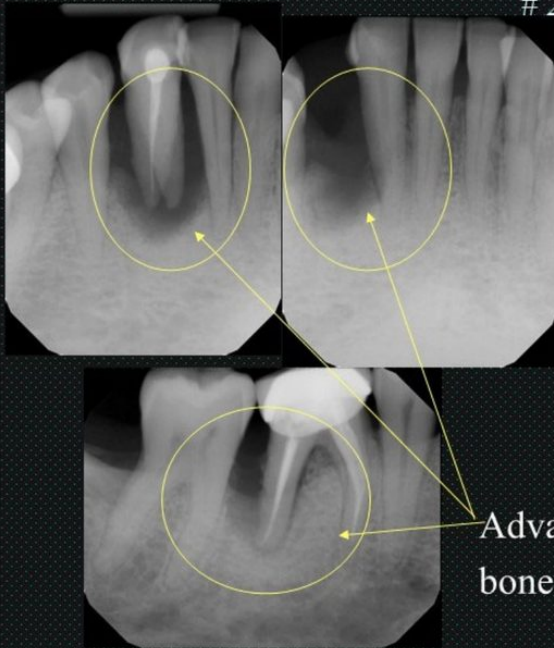
Before



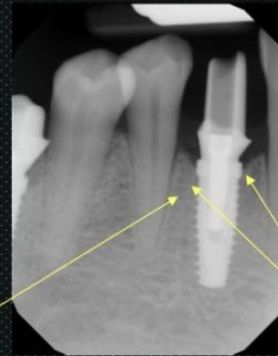
Minimally Invasive Ridge Augmentation, Implant Placement & Provisional Implant Restoration

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27 & 30



Before



New Bone

No bone loss

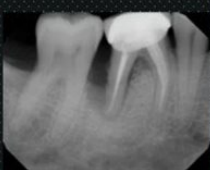
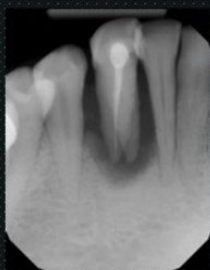


After



Minimally Invasive Ridge Augmentation, Implant Placement & Provisional Implant Restoration

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27 & 30



Before



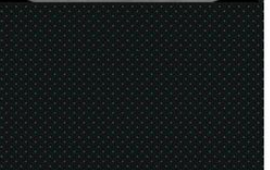
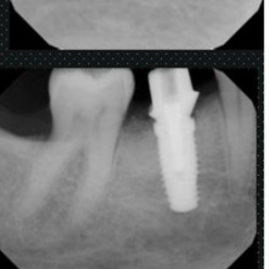
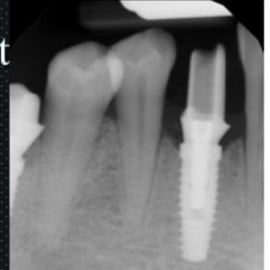
■ Implant Ready to Be Restored



■ Laser Milled Titanium Abutment



■ Temporary Crowns



After



Samir F. Zakaria, D.D.S., M.S.D.

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