

# DENTAL IMPLANTS, SINUS AUGMENTATION & BONE GRAFTING

## *Case Studies* *Volume 1*



*375 East Main Street*  
*East Islip, NY 11730*  
*631-581-5121*  
*[www.drforlano.com](http://www.drforlano.com)*

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**Thank you** for considering us for your dental implant needs.

With success rates exceeding 95%, dental implants are a predictable means to:

- Replace a single missing tooth
- Stabilize a loose, clumsy denture
- Eliminate the palate from a bulky denture
- Rehabilitate an entire dental arch

I have been placing and restoring dental implants for over 20 years. I have achieved Diplomate status, the highest award attainable in the International Congress of Oral Implantologists and currently teach dental implantology to dentists at New York University College of Dentistry.

Above and beyond my involvement in Implant Dentistry, my experience and training in treating the entire masticatory system, ... from the implant placement to the final prosthesis, which involves the intricate neuromuscular system, the bite, the lower face height and the envelope of function, ... gives my patients the **advantage** of a self-contained, **one-doctor, multi-disciplinary approach**.

*Dr. David Forlano*

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# Complete Upper Arch Prosthesis

*Before*



*After*



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# Complete Upper Arch Prosthesis

*Before*



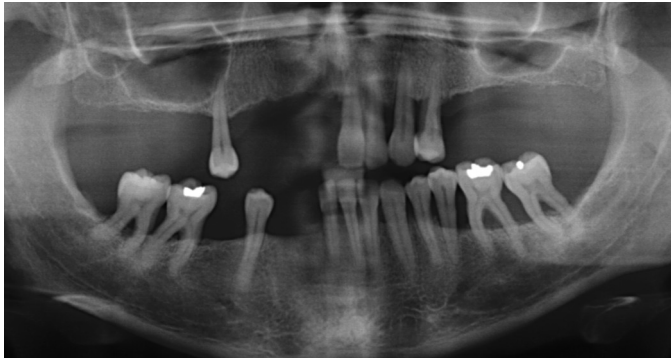
*After*



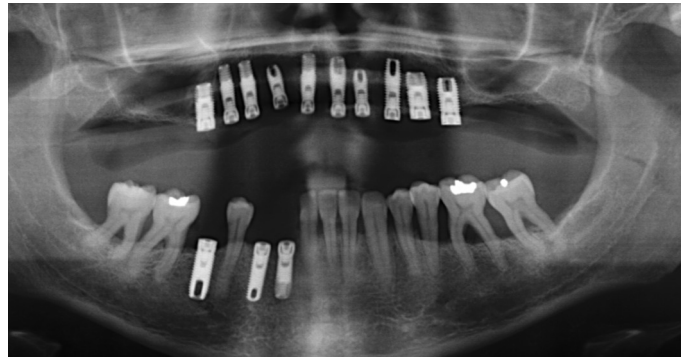
  
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# Complete Upper Arch Prosthesis

*Before*



*After*



  
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# Computer Guided Full Mouth Rehabilitation

*Before*



*After*



*Upper*



*Lower*



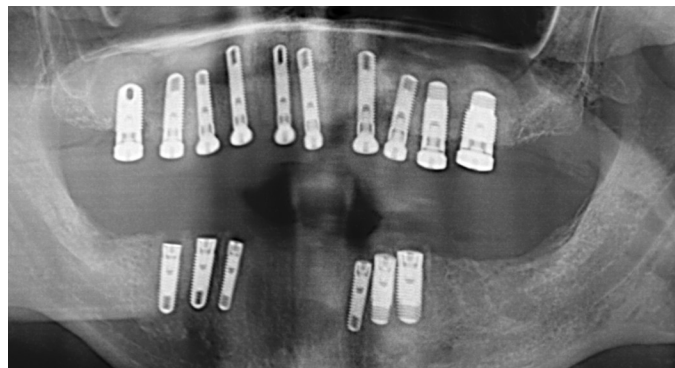
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# Full Mouth Rehabilitation

*Before*



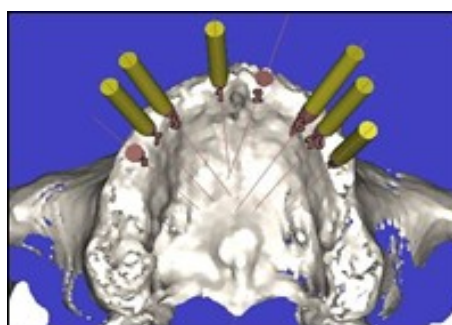
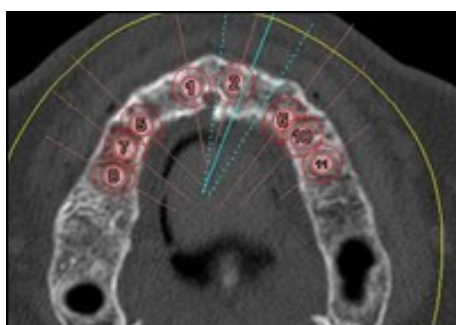
*After*



  
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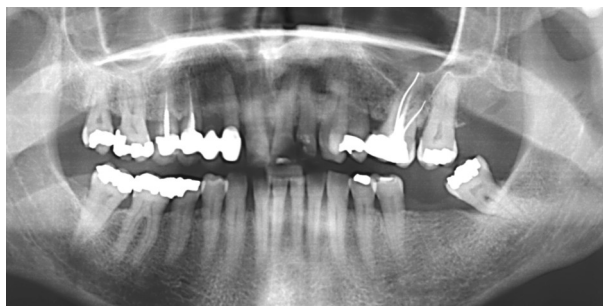
# Complete Upper Arch Prosthesis



  
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# Upper Arch Prosthesis/Immediate Placement

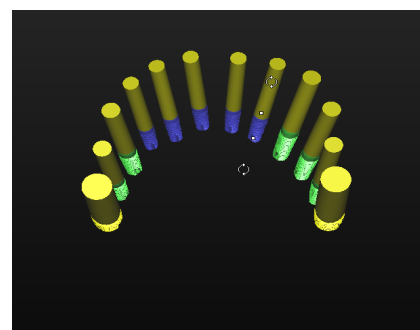
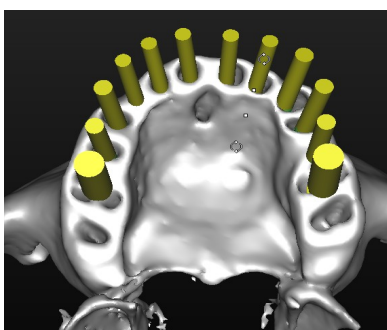
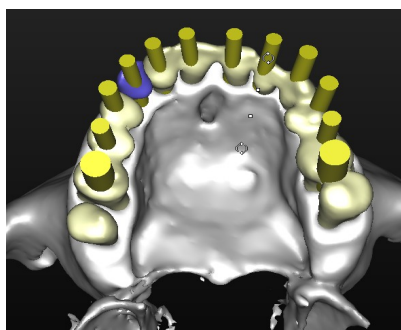
*Before*



*After*



## *Computer Guided Immediate Implant Placement*



  
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# Full Mouth Rehabilitation

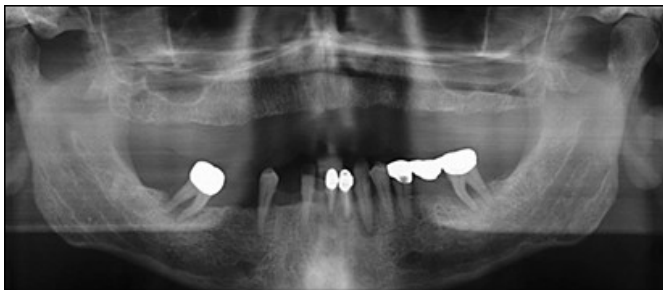
*Uppers*



*Lowers*



*Before*



*After*

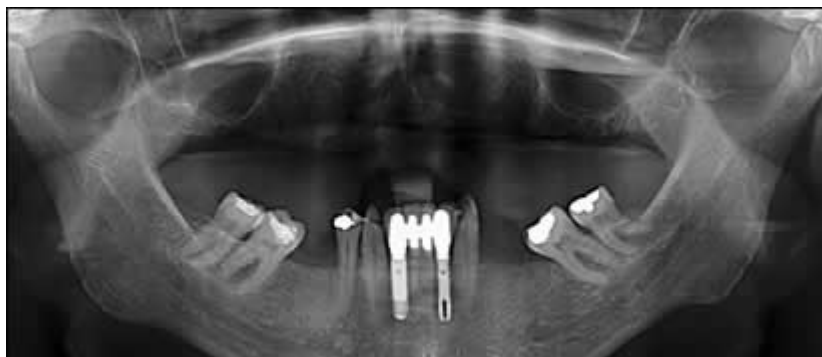


  
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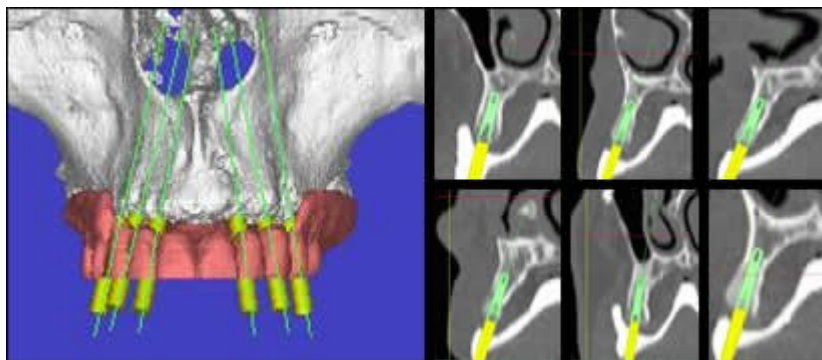


# Computer Guided Immediate Loading

*Pre-Op*



*Computer Guided Non-Invasive Implant Placement. No stitches required*



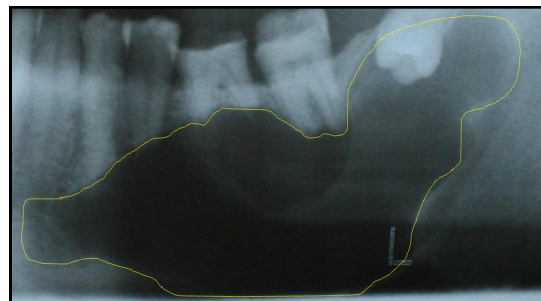
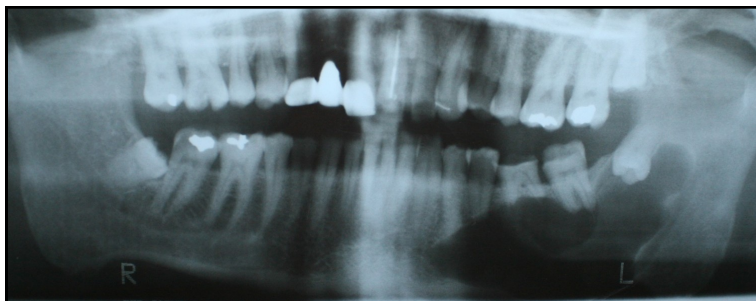
*Implants & Teeth in a Day*



  
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# Computer Guided Flapless

*Odontogenic Cyst of Left Mandible*



*Cyst Removal & Bone Regeneration*



*Non-Invasive, Computer Guided Implant Placement. No stitches required.*



*Efficient Restoration*



  
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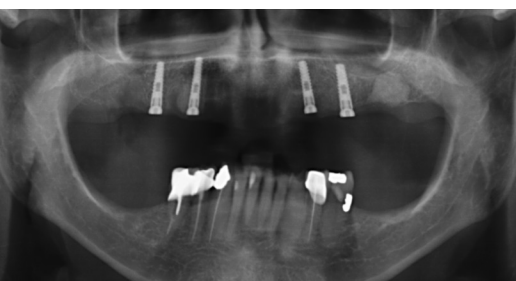


# Maxillary Clip-On Overdenture

*Before*



*After*



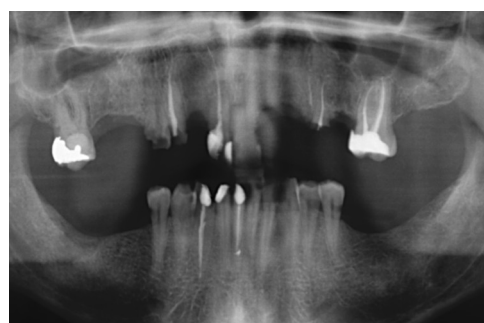
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# Mandibular Clip-On Overdenture

*Before*



*After*

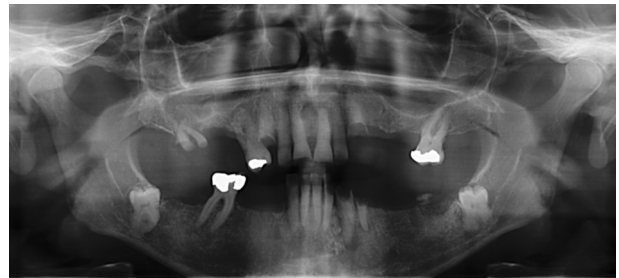


  
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# Mandibular Clip-On Overdenture

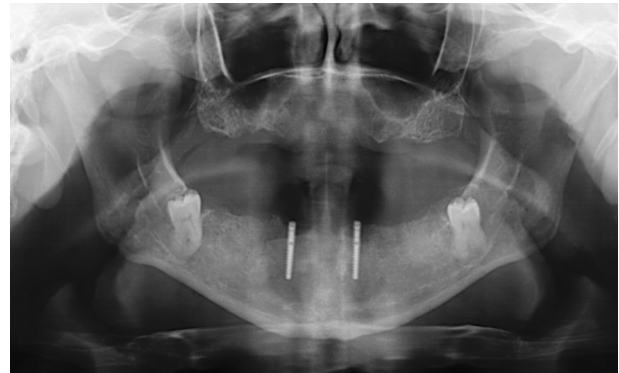
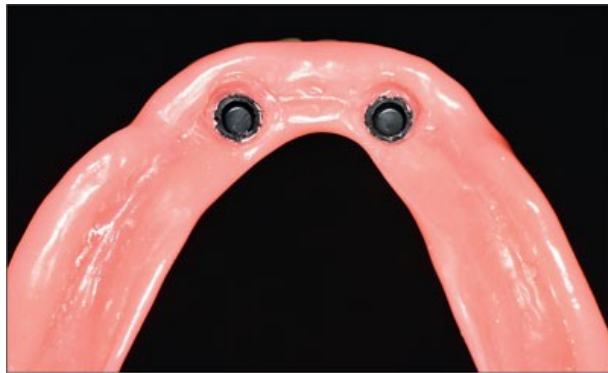
*Decayed and failing dentition*



*Removal of the decayed teeth & transitional dentures*



*Two mandibular implants to retain the lower denture*



# Mandibular Clip-On Overdenture

*Before*



*Implants Placed*



*Completed Case*

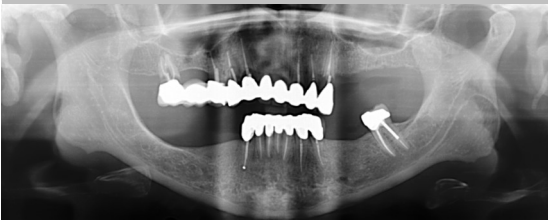


  
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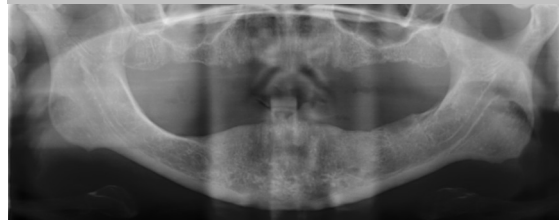


# Mandibular Clip-On Overdenture

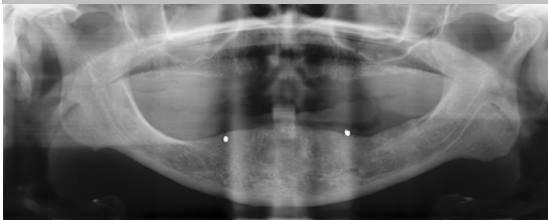
Before: Recurrent decay under old crowns



Decayed teeth removed



Markers for implant placement



Four Mini Dental Implants



Before: Old bulky crowns



After: A natural smile



Before: Recurrent decay under old crowns



After: A natural smile



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# Upper & Lower Clip-On Overdentures

*Before*



*After*



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*Uppers*



*Lowers*

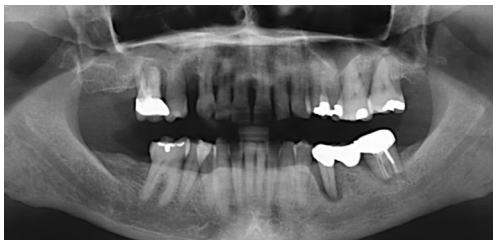


# Mandibular Overdenture

*Before*



*After*



*The mandibular clip-on overdenture.*

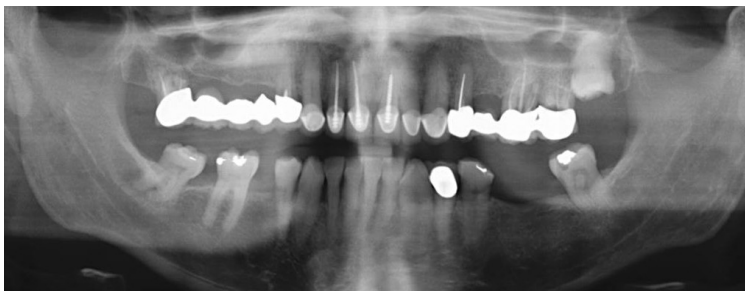


  
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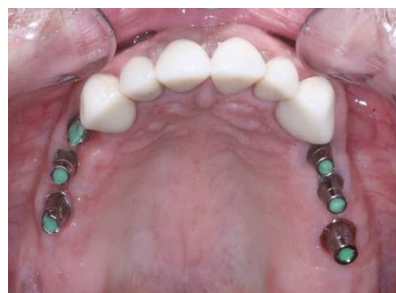
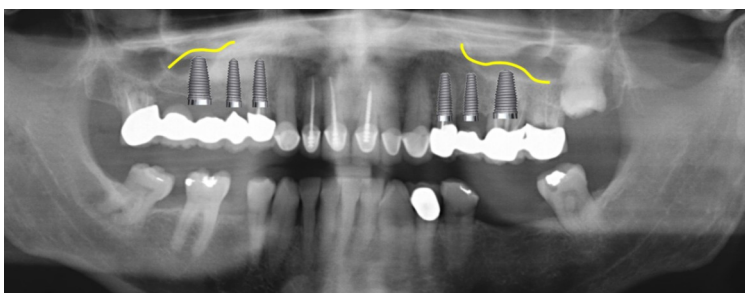


# Bilateral Sinus Lifts & Zirconia Restorations

*Pre-Op: Defective Posterior Bridges*



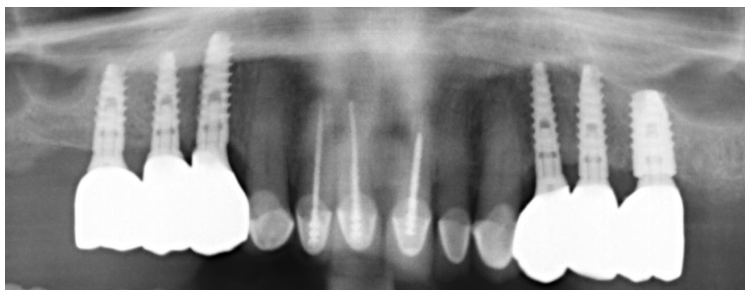
*Planning Bilateral Sinus Lifts & Implant Placement*



*Solid CAD/CAM Zirconia Prostheses*



*The Finished Case*



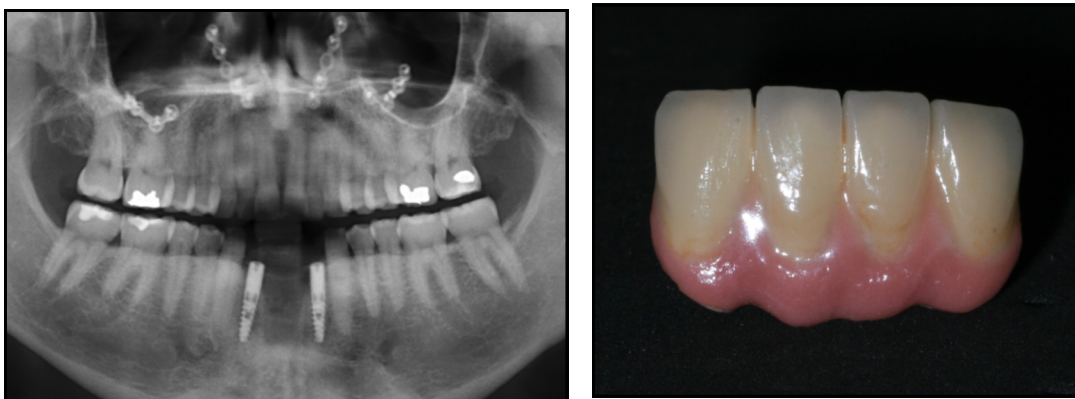
  
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# CAD/CAM Solid Zirconia Prosthesis

*Large periapical lesion affecting the lower central incisors*



*Implant Placement and zirconia restoration*



*Lifelike results*



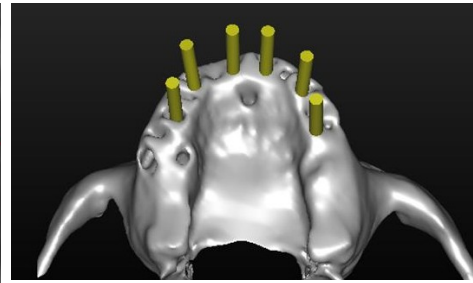
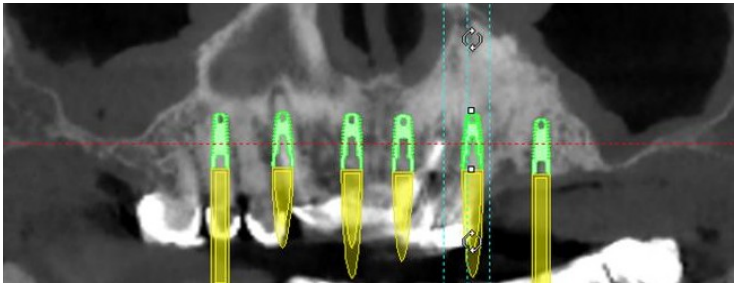
  
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# Computer Guided Full Mouth Rehabilitation

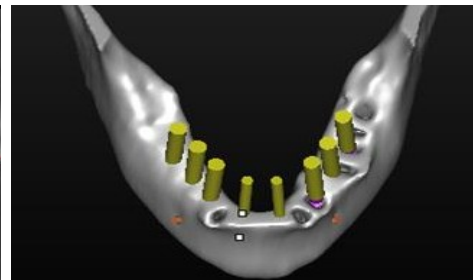
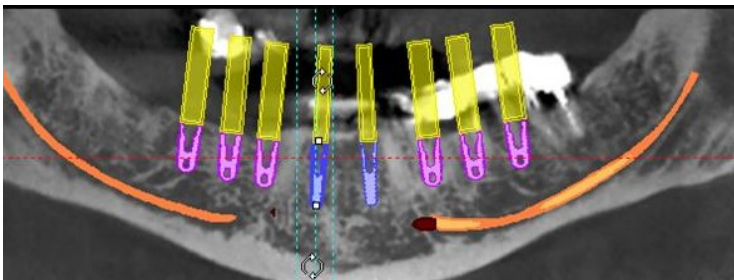
*Collapse of the Masticatory System with a Warped Occlusal Plane*



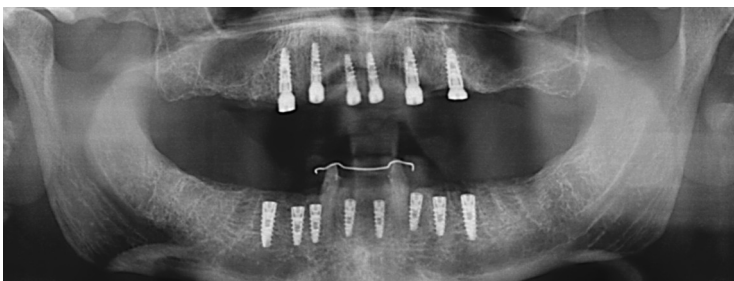
*Planning the Upper Implants*



*Planning the Lower Implants*



*Restoration of the masticatory System with a Level Occlusal Plane*

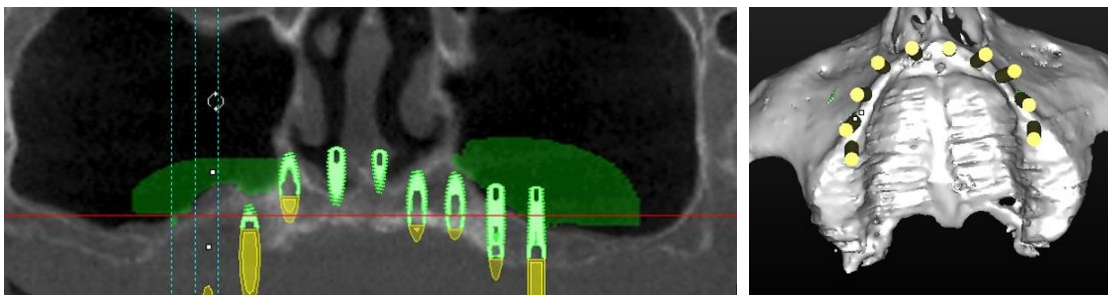


  
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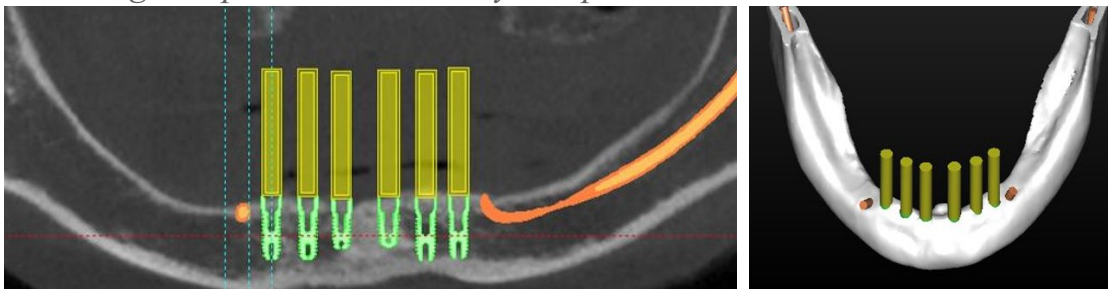


# Full Mouth Rehabilitation

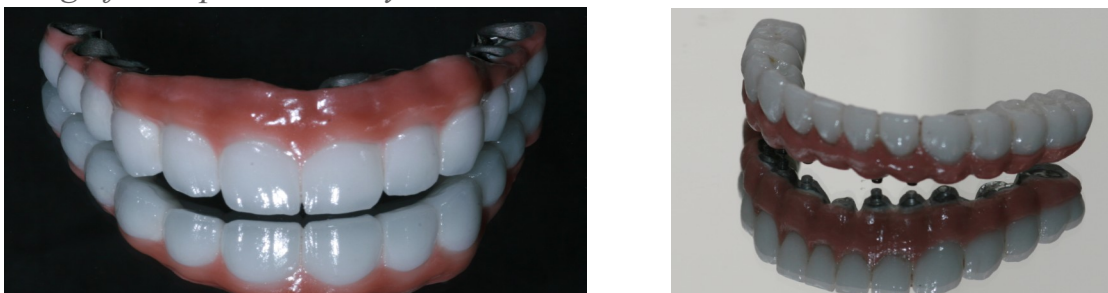
*Planning 10 implants in a severely atrophied maxilla*



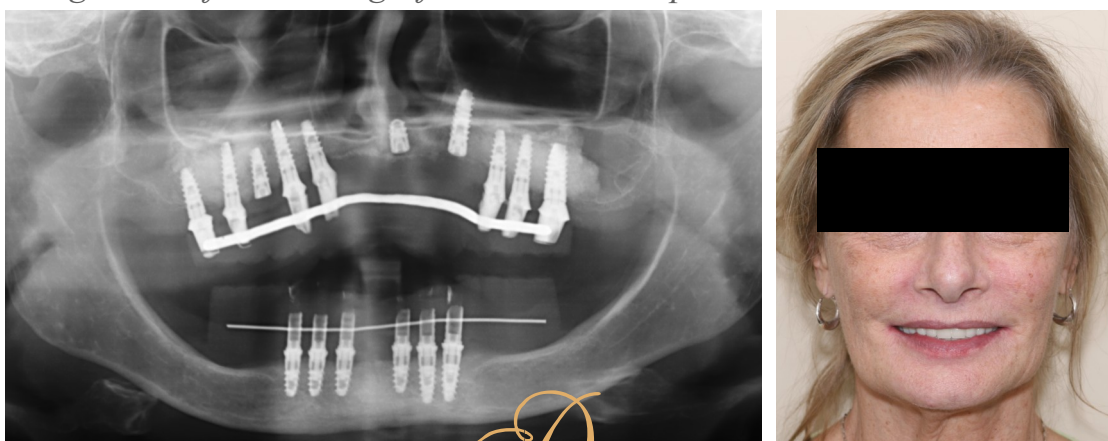
*Planning 6 implants in a severely atrophied mandible*



*Magnificent prostheses by Yovino Dental Studio*



*Integration of the sinus grafts and dental implants*



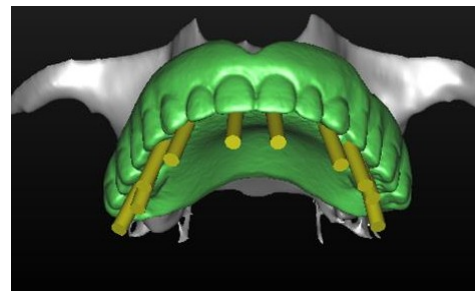
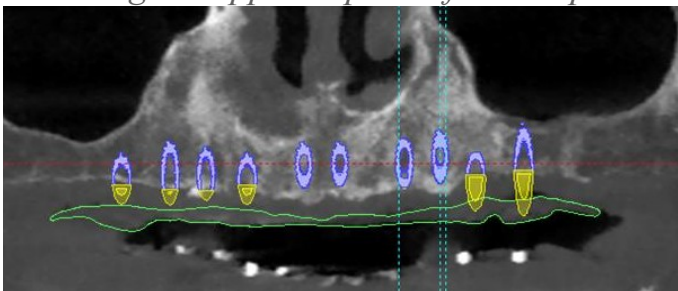
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# Full Mouth Rehabilitation

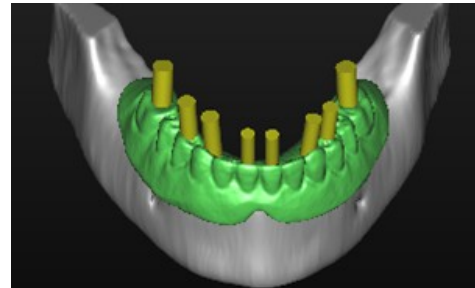
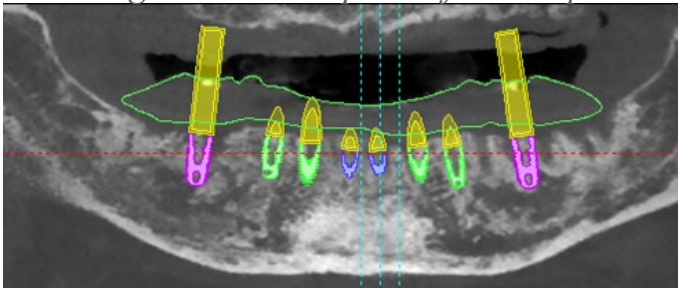
*A failing dentition*



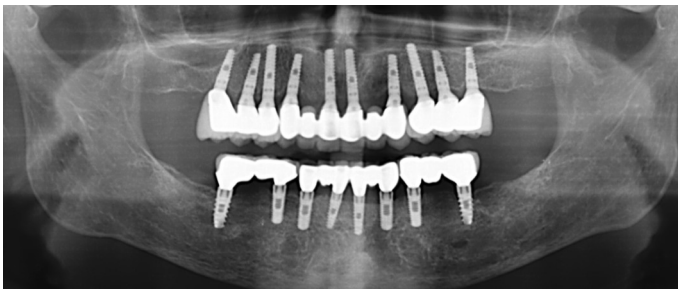
*Planning the upper implants for Computer Guided Placement. No stitches.*



*Planning the lower implants for Computer Guided Placement. No stitches.*



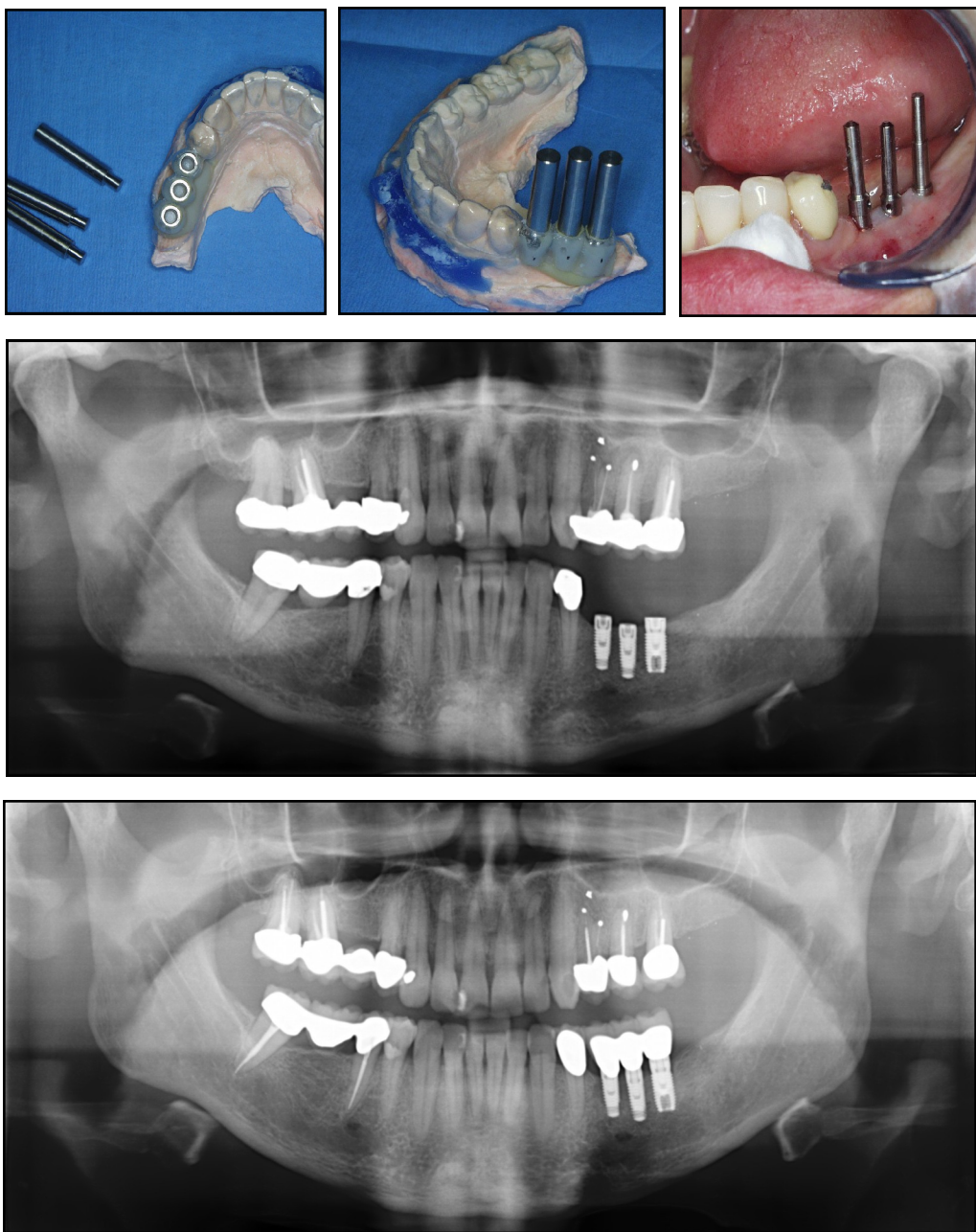
*Rehabilitation.*



  
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# Non-Invasive Implant Placement



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# Immediate Placement & Loading

## **IMMEDIATE PLACEMENT**

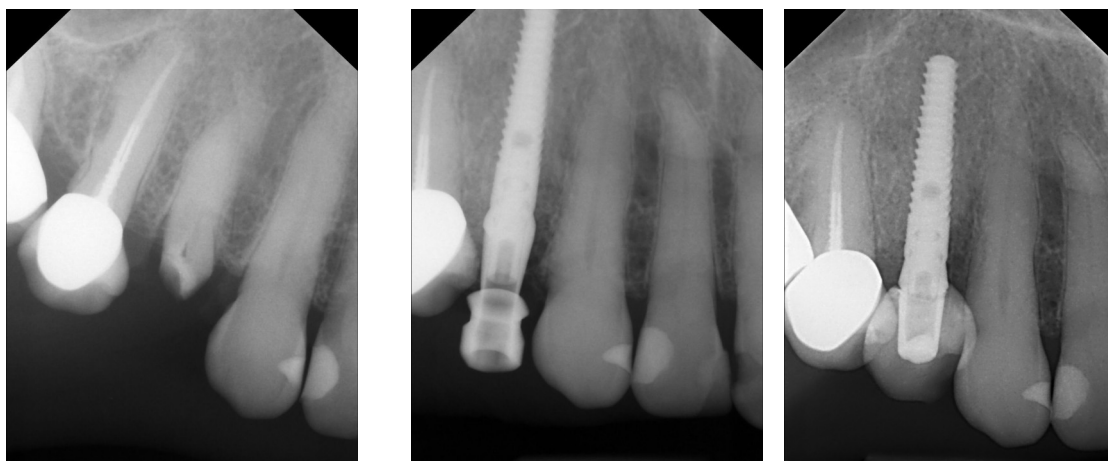
*Immediate Placement is the term used for removing a tooth and placing an implant into the tooth socket the same day. Immediate placement is not always possible. One common obstacle is the shape of the tooth socket. For example, sometimes the root socket is curved or oblong. Dental implants are straight and cylindrical, so trying to put a straight and cylindrical object into a curved and oblong space isn't possible,...like trying to put a square object into a round hole. Not very precise. There are ways to overcome the discrepancy in shape, such as reshaping the tooth socket so it is straight and cylindrical. Often times we are able to do this very successfully. Another obstacle to immediate placement is the surrounding anatomy. In order for immediate placement to be successful, we like a few millimeters of bone beyond the tip of the root socket is required so that the implant can engage solid bone. Sometimes we do not have a few millimeters of bone beyond the root socket because of nerves, blood vessels or sinuses.*

## **IMMEDIATE LOADING**

*Once an implant is placed in the bone, we typically wait 3-6 months before we put a crown on the implant. This allows time for the bone cells to integrate with the implant surface. Immediate Loading is the term used for bypassing the 3-6 month waiting time and placing a crown on a dental implant **the same day** the implant is placed. Immediate Loading is only successful on implants that go in very tight. Realize that some implants don't go in very tight. For those that go in very tight and resist a certain amount of torque, we can send you home with a tooth the same day. Another obstacle to Immediate Loading is a strong or deep bite. Strong bites can cause micromotion of the dental implant and cause the bone cells to die around the implant, causing it to loosen.*

## **SUCCESSFUL IMMEDIATE PLACEMENT & IMMEDIATE LOADING**

*So with all this said, if we can overcome the obstacles, Immediate Placement & Immediate Loading can be very successful if planned properly, as shown here:*

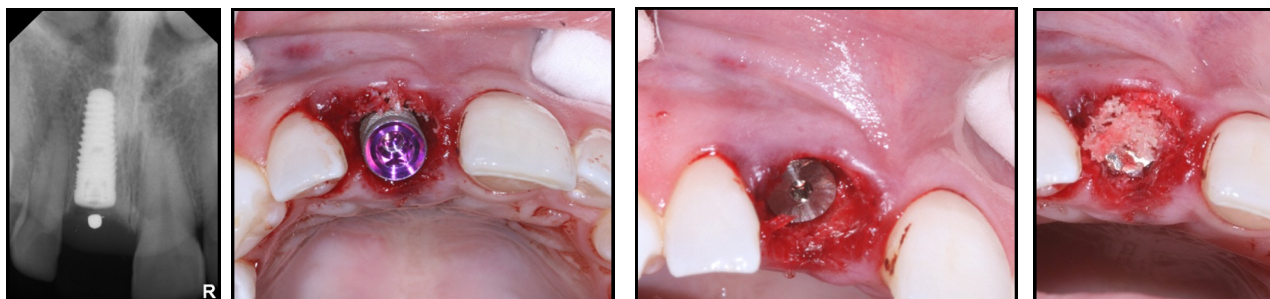


# Immediate Implant in the Esthetic Zone

*A defective central incisor with graying of the gumline required extraction.*



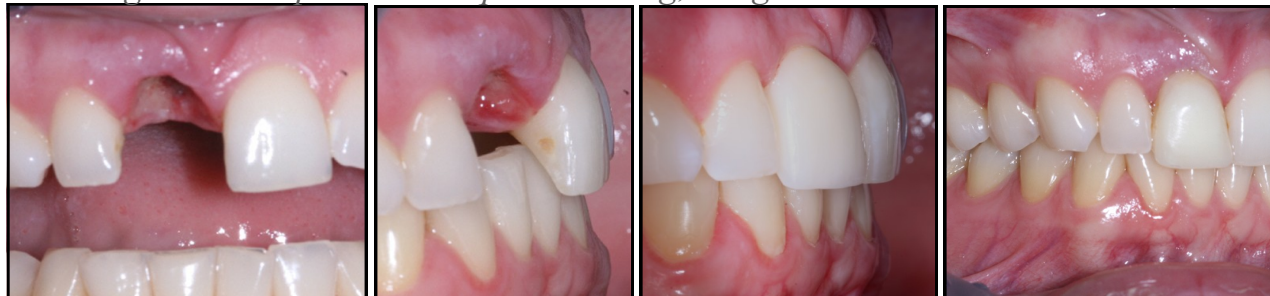
*A dental implant was placed and the tooth socket grafted.*



*A temporary with an ovate pontic was custom carved to support the gumline.*



*Allowing nature to provide adequate healing, the gumline was maintained.*

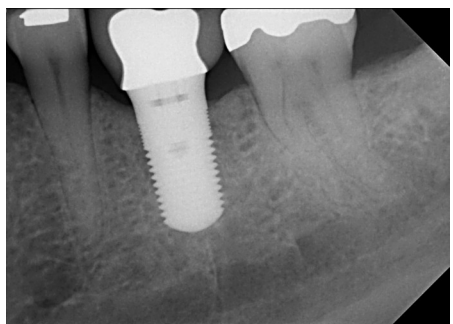
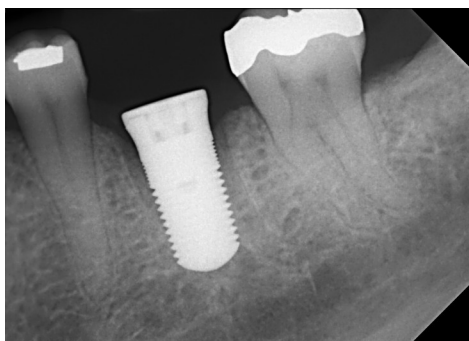
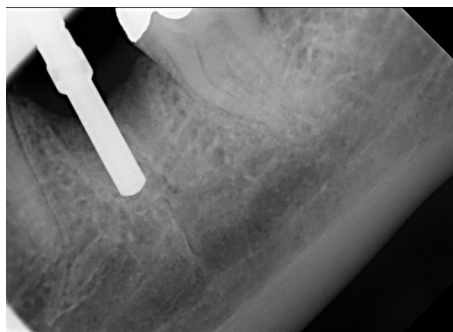


  
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# Immediate Implant Placement

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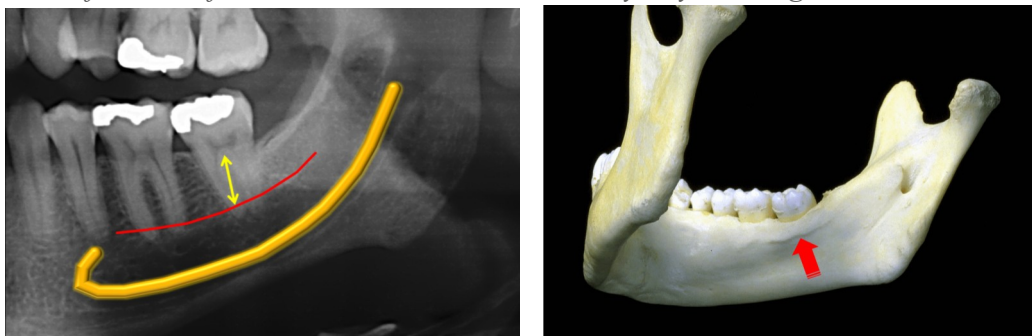
  
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# Implant Placement above the Mylohyoid Ridge

*External resorption of the mandibular left second molar required extraction*



*Identification of vital landmarks includes the Mylohyoid Ridge*



*Implant placement above the vital structures & final restoration*



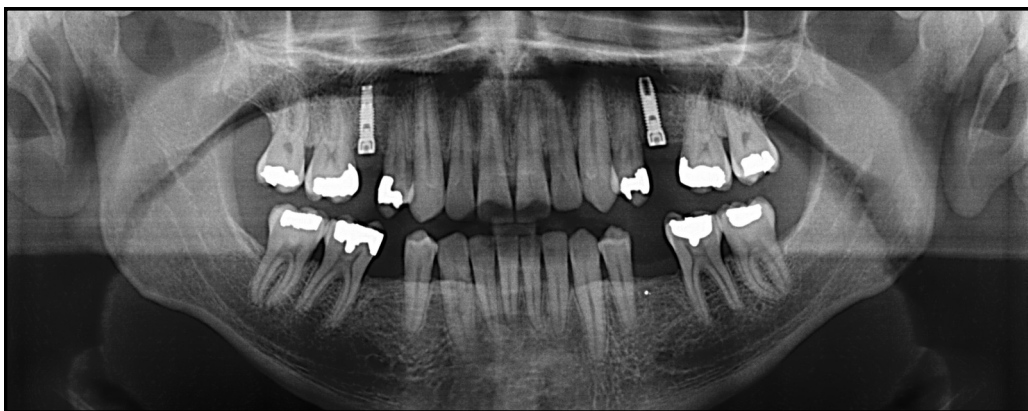
  
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# Single Tooth Implants & The Buccal Corridor

*Before*



*After*



  
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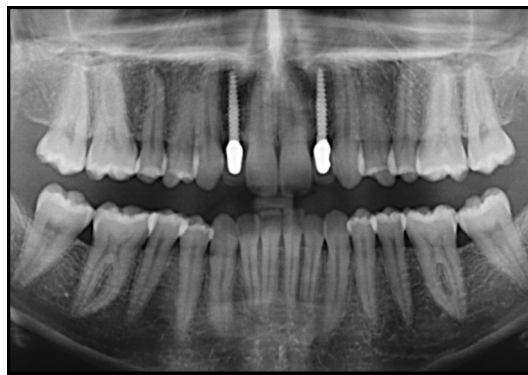


# Correcting Hypodontia in the Adolescent

*Before*



*After*



  
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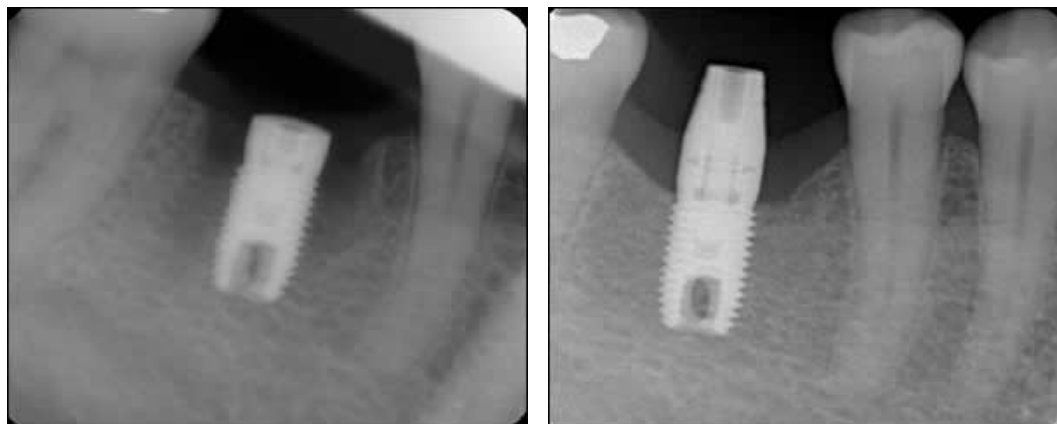


# Correcting Hypodontia in the Adult

*A retained deciduous tooth developed an abscess after 35 years.*



*Immediate implant placement was performed in the interradicular bone*



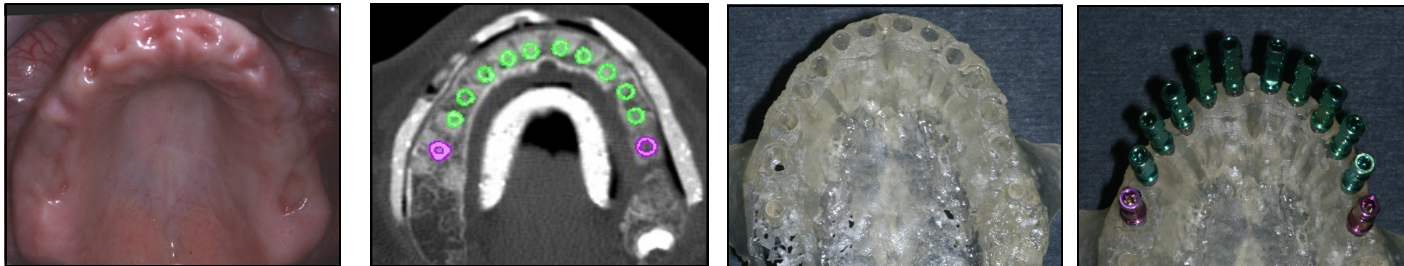
*Teeth were whitened and implant was restored.*



  
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# Computer Guided Immediate Loading

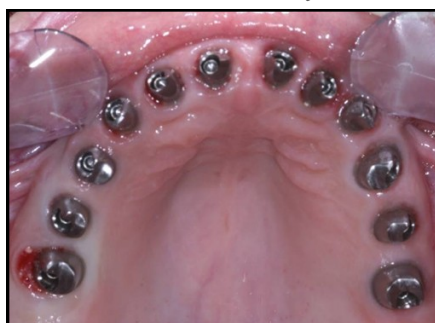
*Twelve implants were planned for non-surgical placement.*



*CAD/CAM replica & SurgiGuide allowed for non-invasive implant placement. No stitches!*



*Teeth in a Day!*



*After*

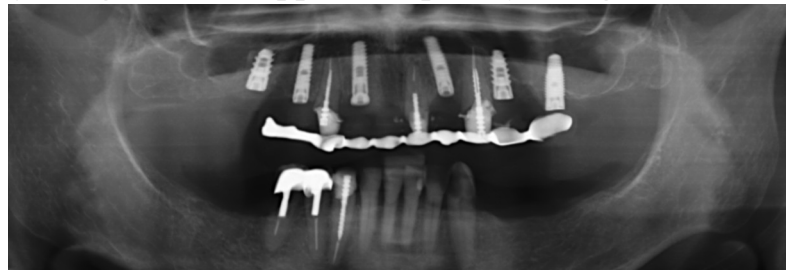


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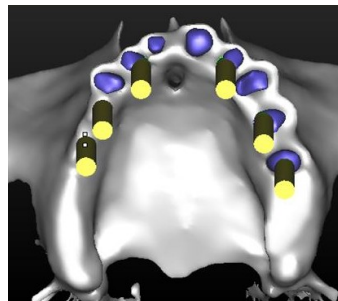
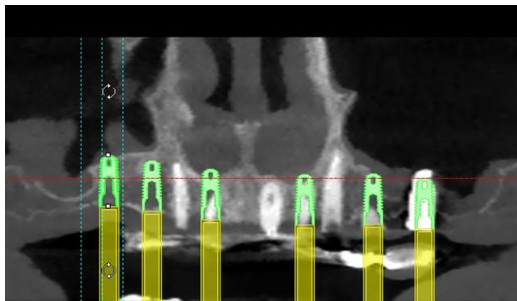


# Complete Upper Arch Prosthesis

*Staged implant case utilizing three failing teeth to support temporary bridge.*



*Computer Planning of six implants connecting three-section prosthesis.*



*The Prosthesis*



*After*

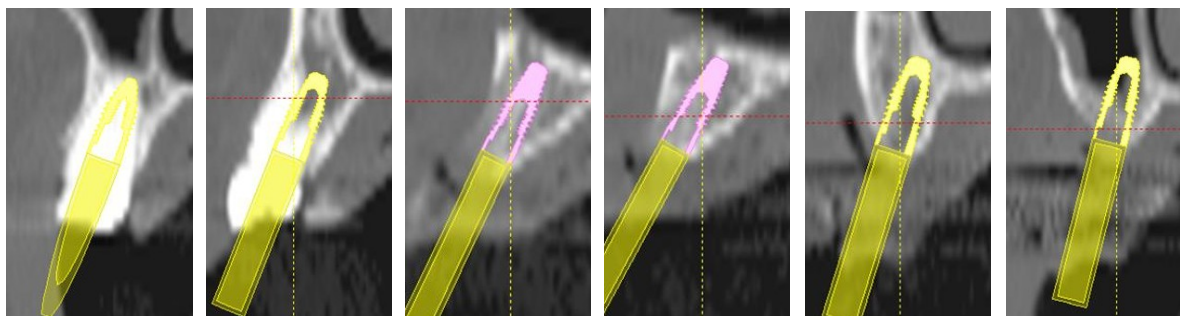


  
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# Complete Arch Upper Prosthesis

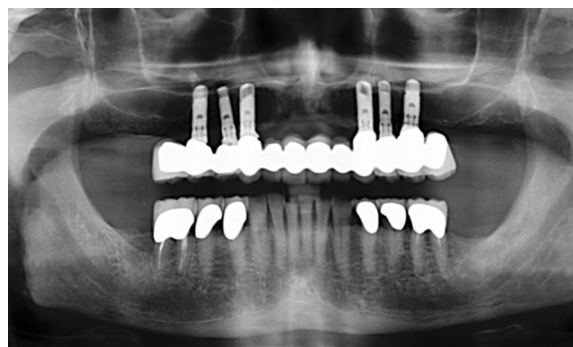
*Planning six implants in cross-sectional views on Simplant.*



*Before*



*After*



  
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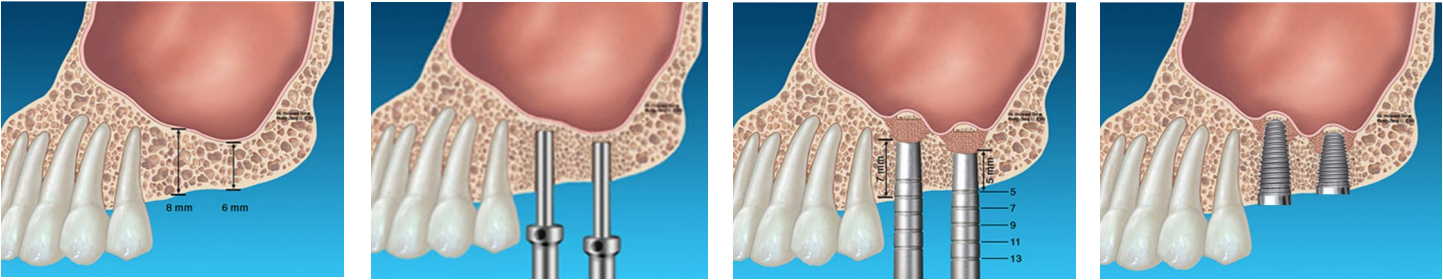
# Combination Implants & Veneers



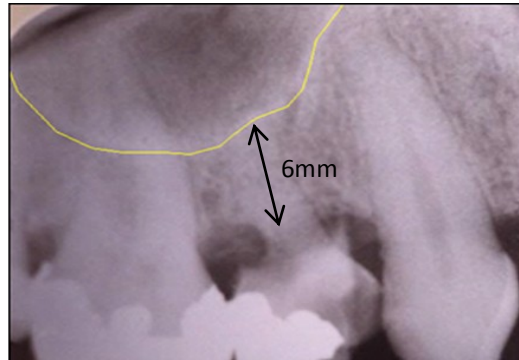


# Crestal Approach Sinus Lift

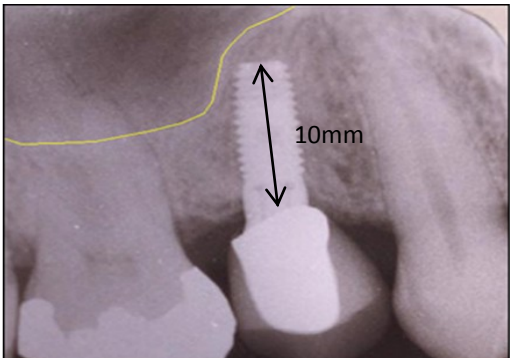
*When a small volume of graft is necessary, the graft material can be inserted through the holes drilled for the dental implants. Hydraulic pressure on the graft material can elevate the sinus. Implants can be placed the same day.*



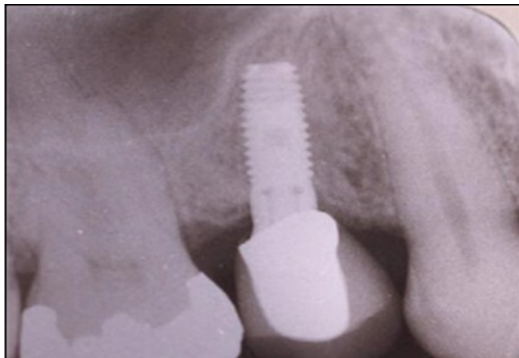
*Decaying deciduous molar in a 35yr old male.*



*Only 6mm of available bone height beneath the maxillary sinus.*



*Elevation of the sinus floor and placement of a 10mm implant.*



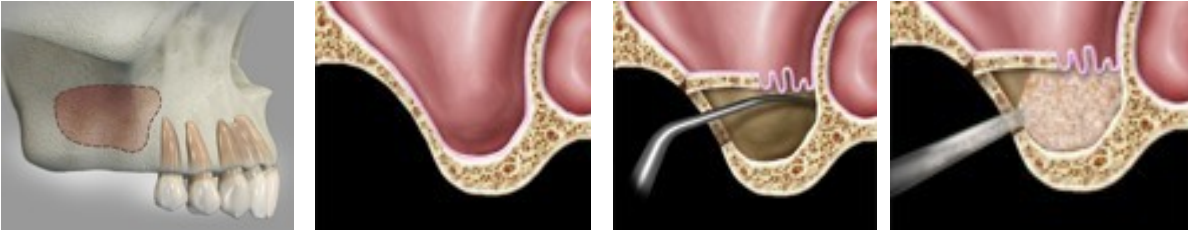
*Remodeling of the sinus floor 12mm above the crest.*





# Lateral Approach Sinus Lift

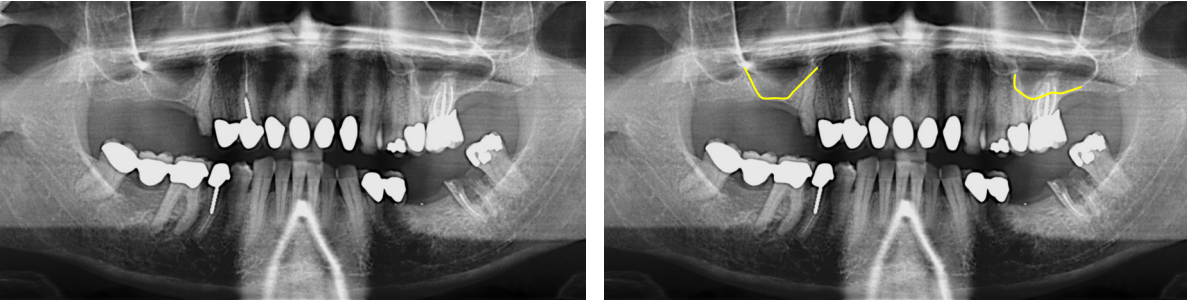
*When a large volume of graft is necessary, a window, is made through the side of the sinus and graft material can be inserted through the window.*



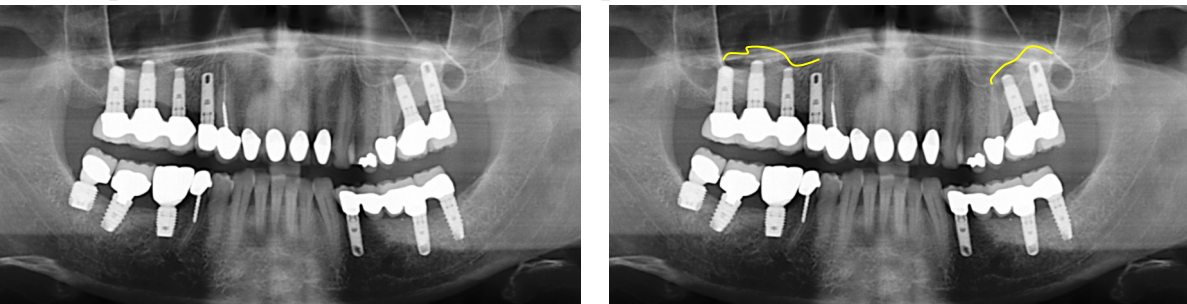
*After a 6-8 month maturation period, the graft material is replaced with natural bone and the dental implants can be placed.*



*Pre-Op: Low sinus on both sides*



*Post-Op: Bilateral sinus elevation & implant restoration*



  
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# Crestal Approach Sinus Lift

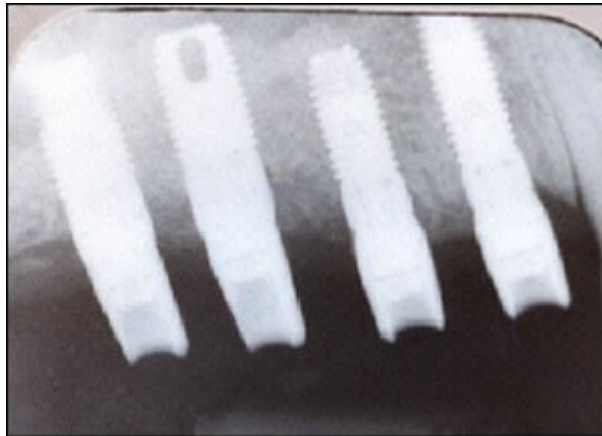
*Pre-operative radiograph revealing four missing teeth.*



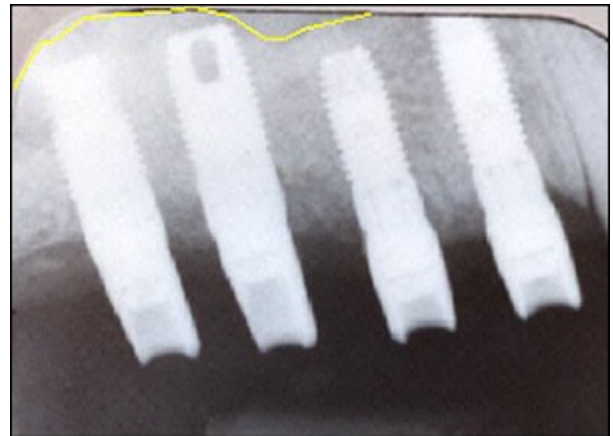
*A low maxillary sinus appeared to be an obstacle to implant placement.*



*Using the Summer's Technique the floor of the maxillary sinus was gently elevated to accommodate four dental implants.*



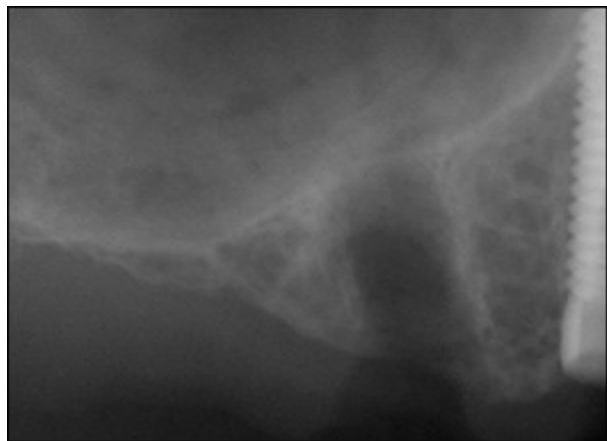
*The repositioned sinus floor and integration of full-length implants.*



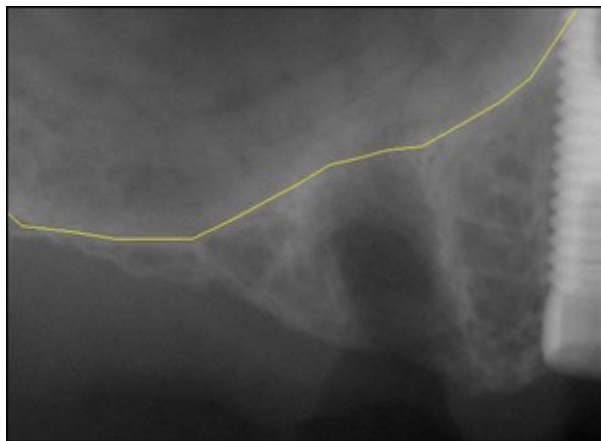
  
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# Crestal Approach Sinus Lift

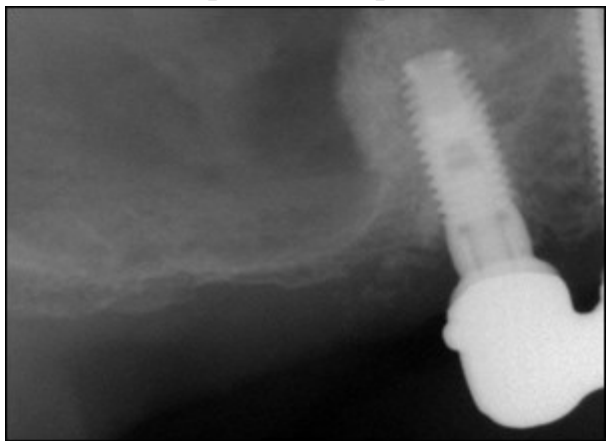
*The upper right second bicuspid was extracted.*



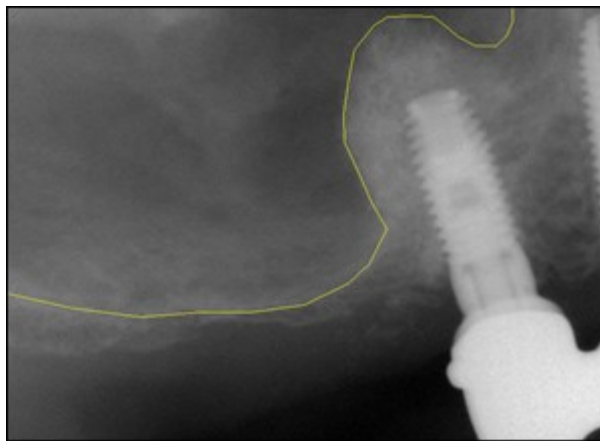
*A low maxillary sinus appeared to be an obstacle to implant placement.*



*Using the Summer's Technique, the floor of the sinus was gently repositioned "non-surgically". A bone graft and dental implant were placed*



*The new position of the sinus and the integrated bone graft & implant.*



  
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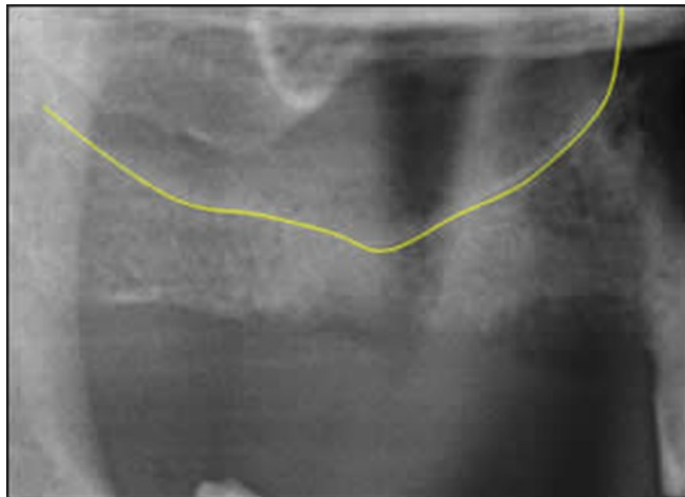


# Crestal Approach Sinus Lift

*Pre-operative radiograph reveals a low maxillary sinus.*



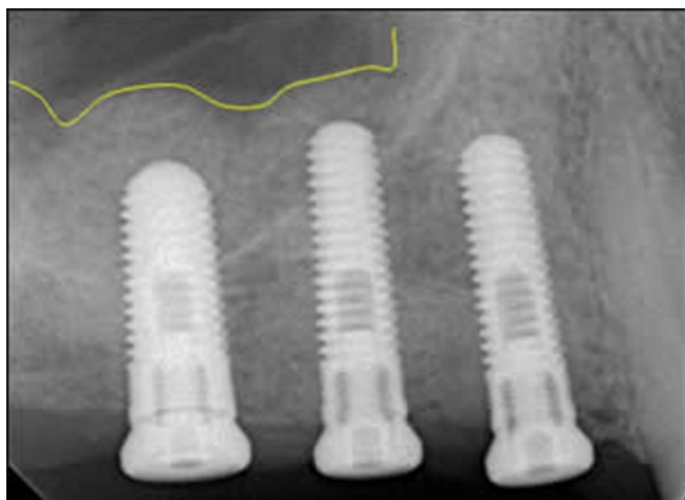
*Tracing of the sinus floor .*



*Post-operative radiographs reveals placement of three dental implants after a non-invasive sinus elevation*



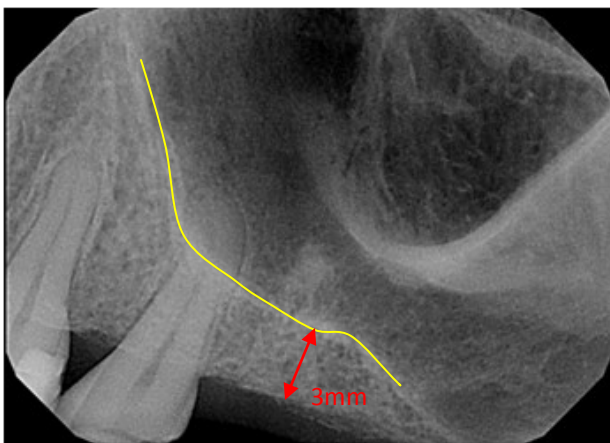
*Tracing of the repositioned sinus floor providing ample space for the three dental implants*



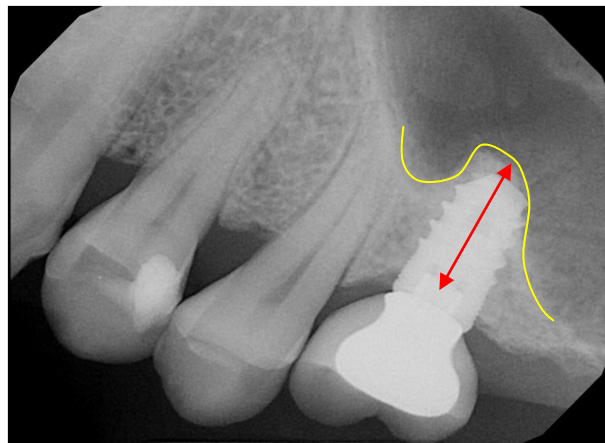
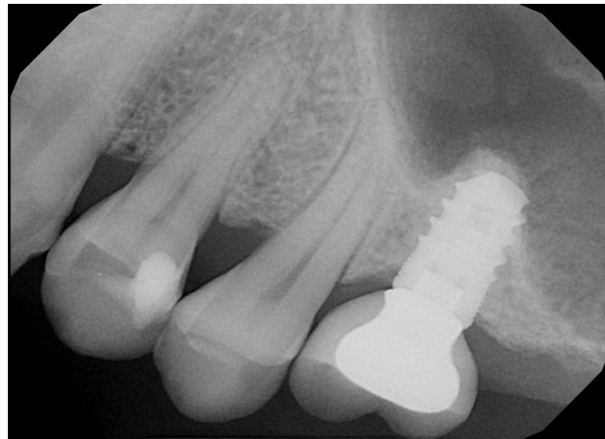
  
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# Crestal Approach Sinus Lift

*A low maxillary sinus appeared to be an obstacle to implant placement. Only 3mm of available bone beneath the sinus.*



*Using the Summer's Technique, the floor of the sinus was elevated "non-surgically" 7mm. Well above the documented average of 4mm.*

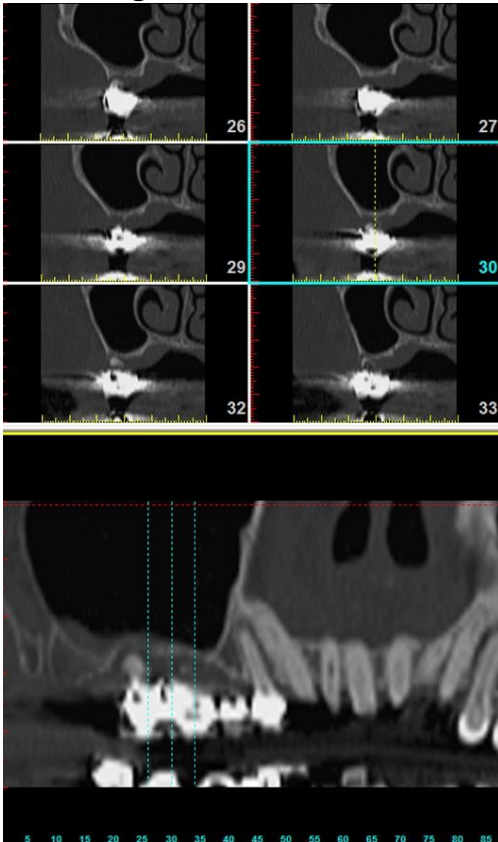


*Unprecedented results attributed to Dr. Forlano's experience and skilled team of assistants.*

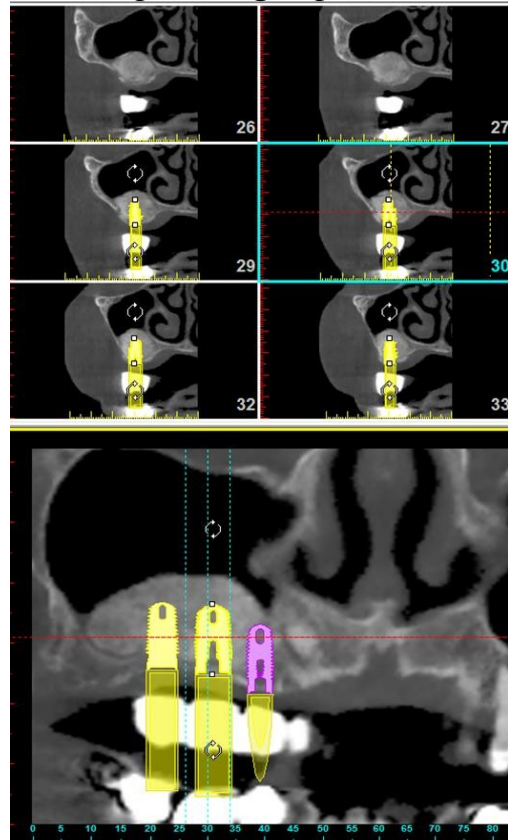


# Lateral Approach Sinus Lift

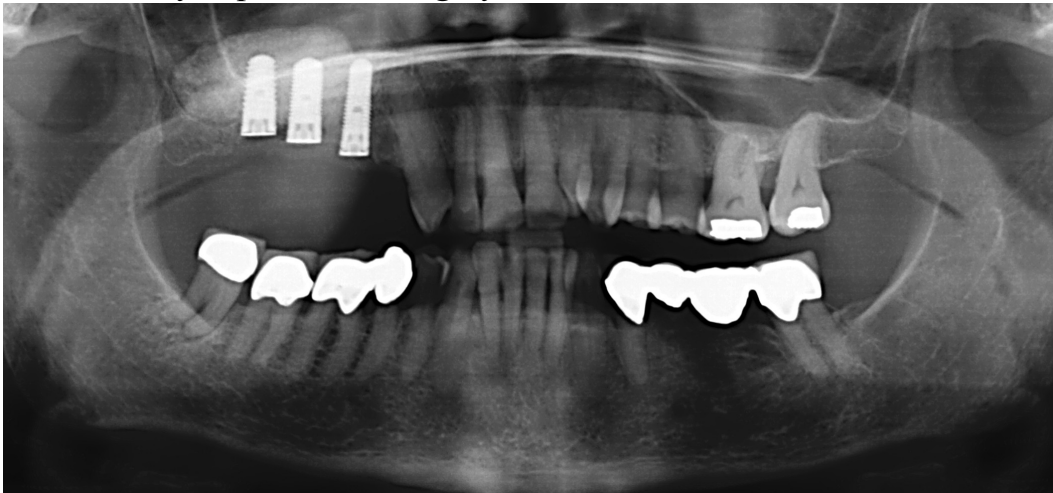
*Pre-Operative CBCT Scan revealing low sinus.*



*Large graft placed beneath the sinus & planning implants.*



*Placement of implants in the grafted bone.*



  
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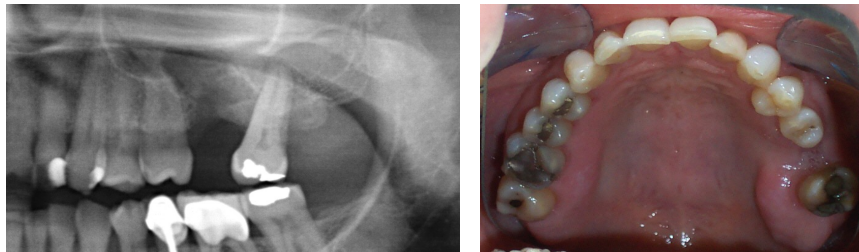


# Circumnavigating the Maxillary Sinus

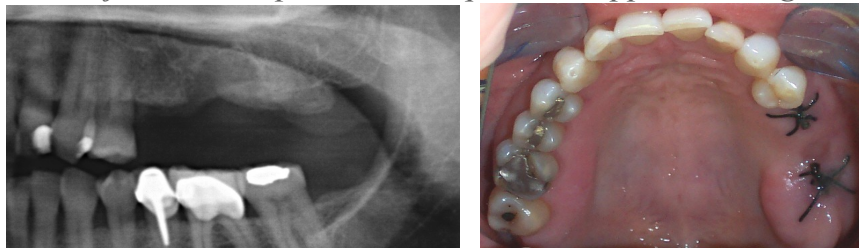
*A cystic lesion around upper molar displaced the sinus.*



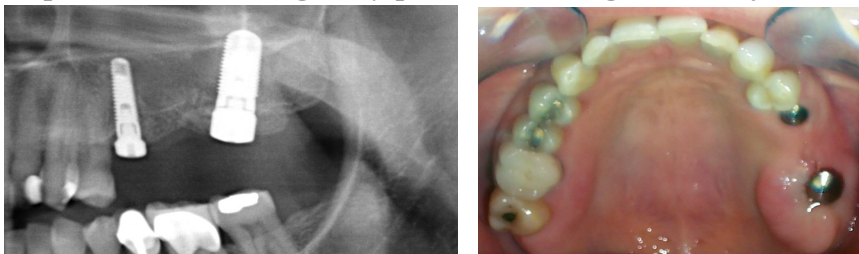
*The tooth was removed & sinus allowed to heal.*



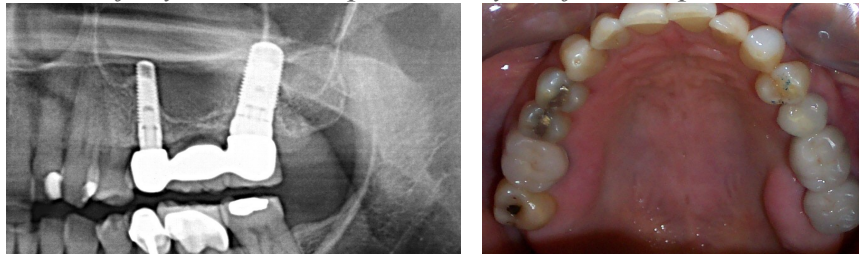
*The adjacent teeth proved inadequate to support a bridge.*

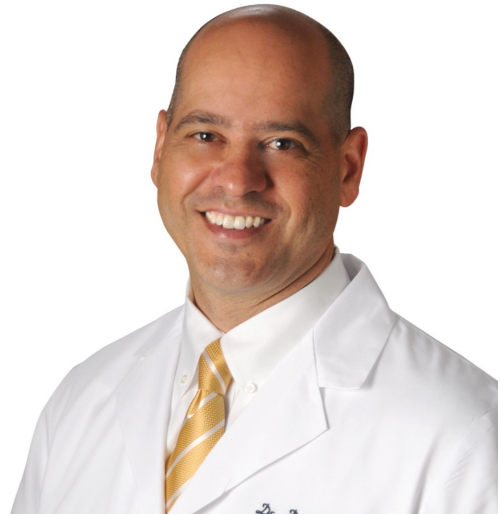


*Implants were strategically placed avoiding a sinus lift.*



*Successfully restored implants. 10 year follow-up.*





Dr. Forlano is a general dentist trained in rehabilitating the entire masticatory system. The masticatory system is the functioning part of the body responsible for chewing.

He has earned Diplomate status in implant dentistry through the International Congress of Oral Implantologist. He is on faculty at New York University College of Dentistry where he teaches other dentists implant surgery, prosthetics and all stages of bone grafting.

All of the cases and clinical photographs presented here are of actual patients treated by Dr. David Forlano.

Thank you for allowing us to display your cases. Thank you for the opportunity to treat so many interesting cases. I am grateful for your trust & confidence.

DF





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