

Implant replacement therapy

Single tooth implant therapy in the healed ridge. Mandibular posterior tooth

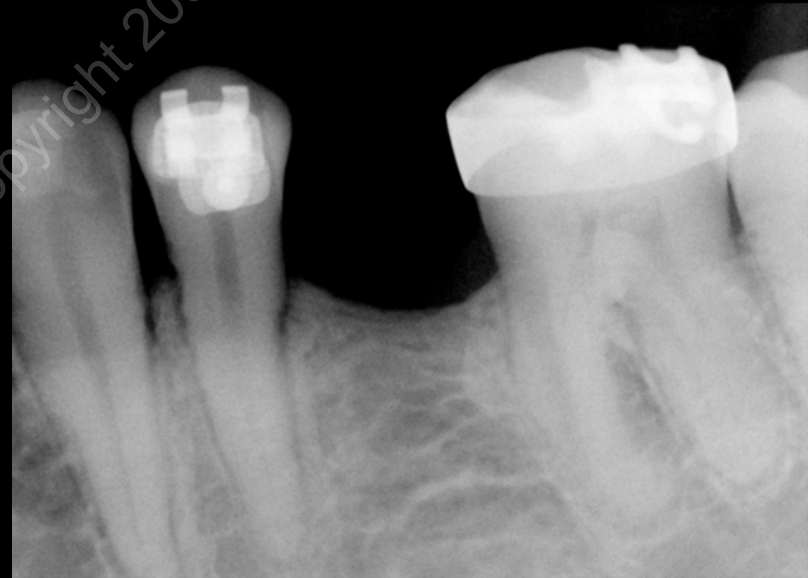
Drs. Alan Rosenfeld and George Mandelaris
Diplomates, American Board of Periodontology

Implant placement

Tooth #20 Mandibular Left Second Premolar



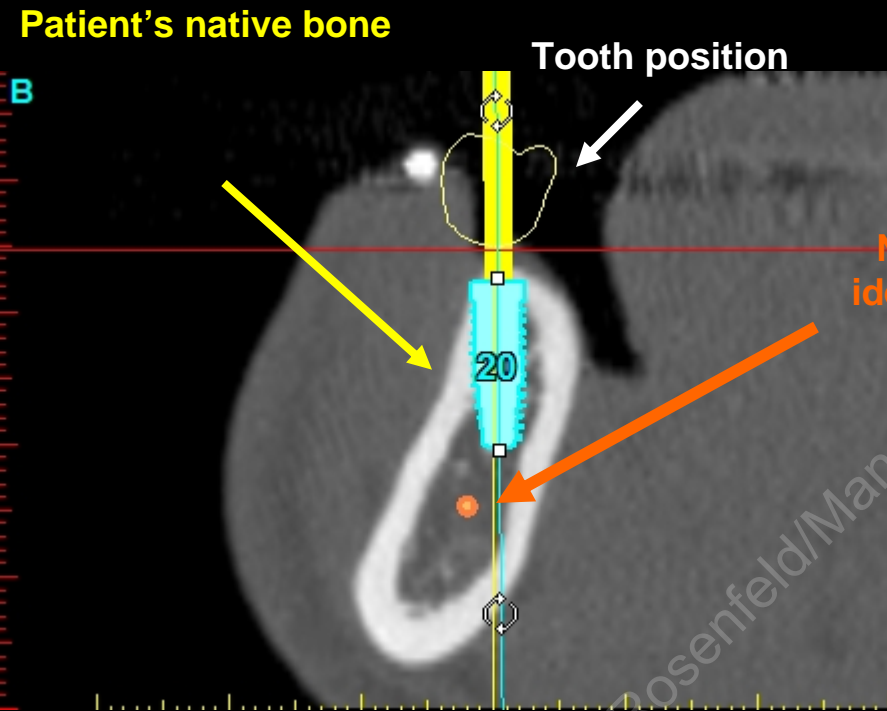
Initial Clinical Presentation. Patient is at end stage of adult orthodontic therapy.



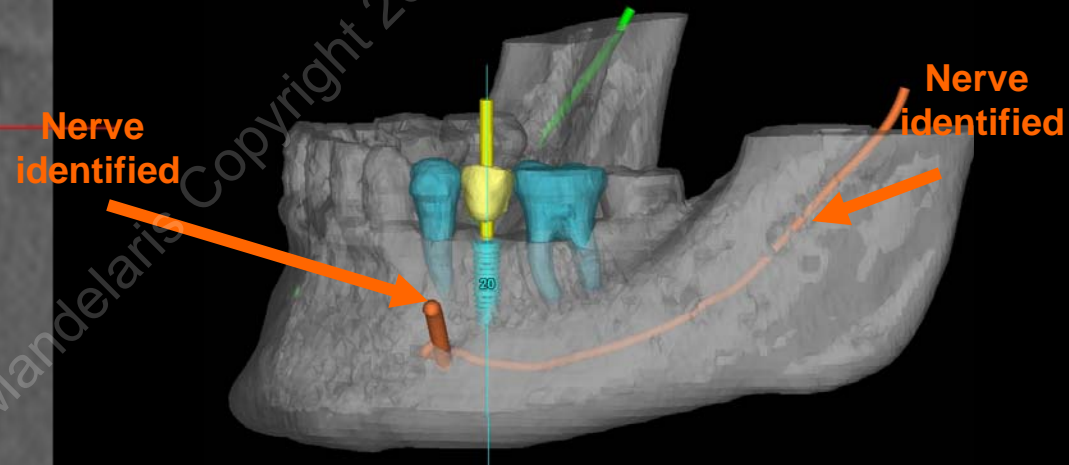
Initial Radiograph showing missing tooth #20

Mandibular (lower) left second premolar was congenitally missing

CT scan diagnostic treatment planning



Virtual (3D) CT scan implant planning



1. Three dimensional reconstruction demonstrating planned implant positioning for this patient. Implant placement will occur at the sites of tooth position #20.
- One implant will be used to support a lower premolar crown. The implant will also help to maintain the remaining bone **LONG-TERM**.
 - Position of nerve is highlighted in orange for safety in planning and in executing surgery.

- Cross section view of the implant position for #20. CT scan analysis allows Drs. Rosenfeld & Mandelaris to analyze the jaw bone anatomy, position of the nerve, and bone quality as part of the decision making process to determine the proper treatment plan for the patient. In this case, implant placement was a viable option and could be performed without any anticipated need for bone grafting.

The Laboratory Process

(making the implant crown)

This page is from a similar situation, but a different patient

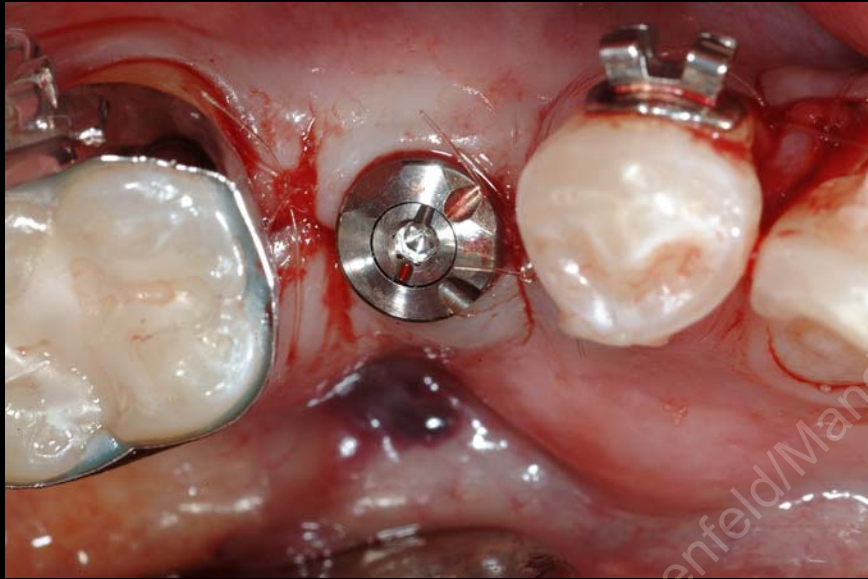


- When you are referred back to your dentist to complete the crown, an impression will be taken.
- This picture represents an implant replica (i.e. “analog” which has been placed into the a stone model. The stone model was made from the impression.
- The implant crown process now ensues by a laboratory technician who works closely with your dentist.

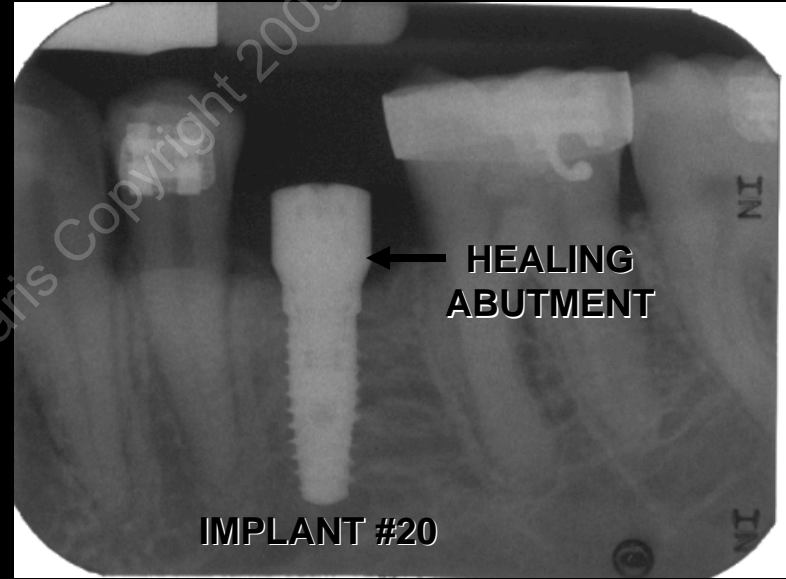
- An intermediate component is made, called a “final abutment” to which the implant crown is made to fit.
- The abutment attaches to the internal aspect of the implant by a small screw (red arrow).
- This picture represents a specific type of final abutment that was developed using CAD/CAM technology.

- A final crown is now made which will be cemented to the abutment.
- This picture represents a porcelain implant supported crown to replace tooth #30 in a different patient.

SURGERY



- Implant placement surgery is completed and dissolving microsurgical sutures are placed to allow the tissue to heal properly. This implant surgery has occurred in a one Stage event for this patient. No additional Surgery will be required. A 2 month bone healing period will occur where there implant will heal undisturbed before making the crown. A healing abutment is protruding through the gum to identify its position.

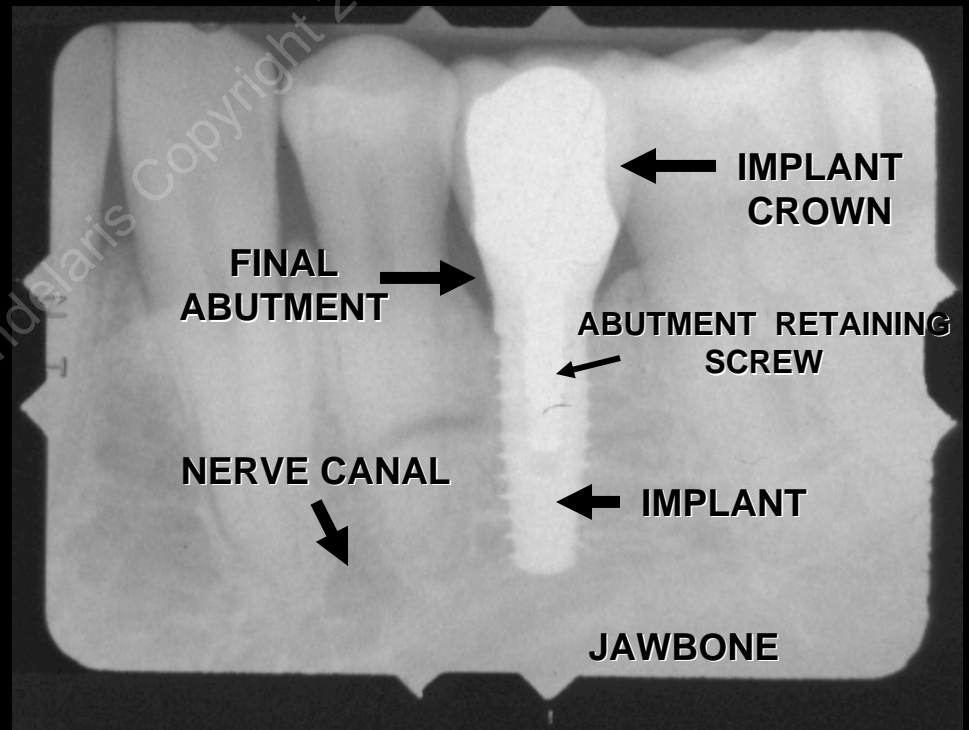


- An X-ray is taken directly after surgery to verify implant position.

The Final Outcome



- The final crown (red arrow) is cemented to place & the patients bite is checked.



- The final Xray with the implant anatomy dissected for patient information and understanding

Implant placement #20

BEFORE



AFTER

