Delayed (24 hours) Immediate Loading of a Full Arch Implant Supported Prosthesis

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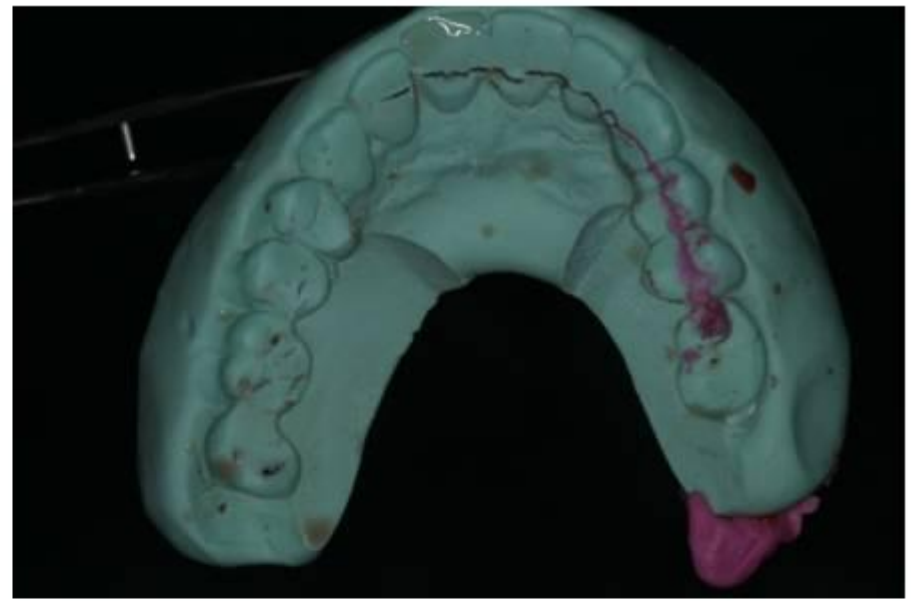
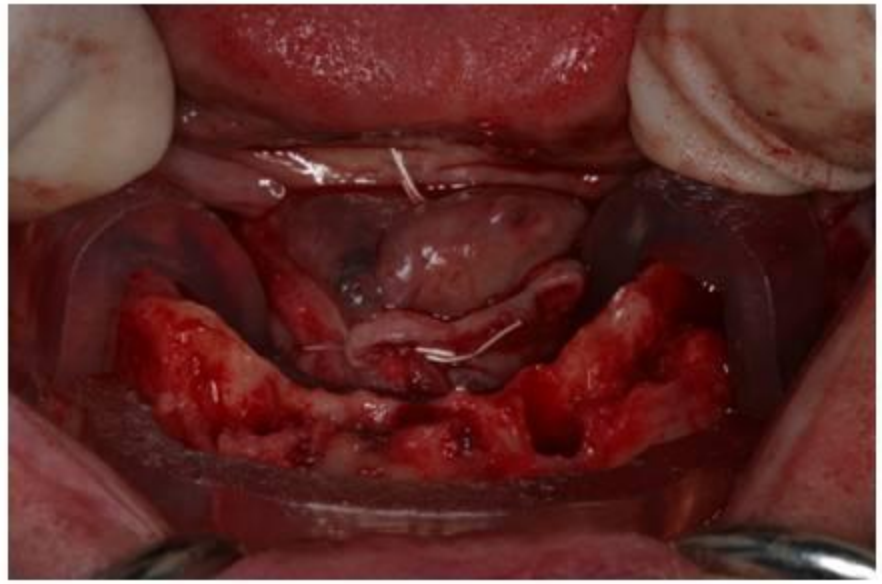
1. Evaluate dentition and determine the proper vertical and A-P position (This may be the current VDO)
2. Take impressions and bite at your established occlusion. Determine your proper position of the maxillary cast for mounting, whether you choose a face bow or other methods.
3. Have full wax ups done.
4. Depending on the state of the patient's dentition will determine what kind of records you try in the patient's mouth.
a. If this is a lower DIEM against an existing upper denture and if the anticipated occlusion is going to be the same as the current occlusion, then take records with a lower record base and rim and move to a tooth try in at a subsequent visit.
b. If you are re-establishing a proper mandibular position, go through the steps above while taking records of the anticipated occlusion. Always have a tooth try in prior to processing.
c. If a new maxillary denture is to be fabricated, it should also be tried in along with the lower case. On occasion, it may be necessary to adjust the existing teeth to allow for the proper contours of the wax rims and tooth try ins.

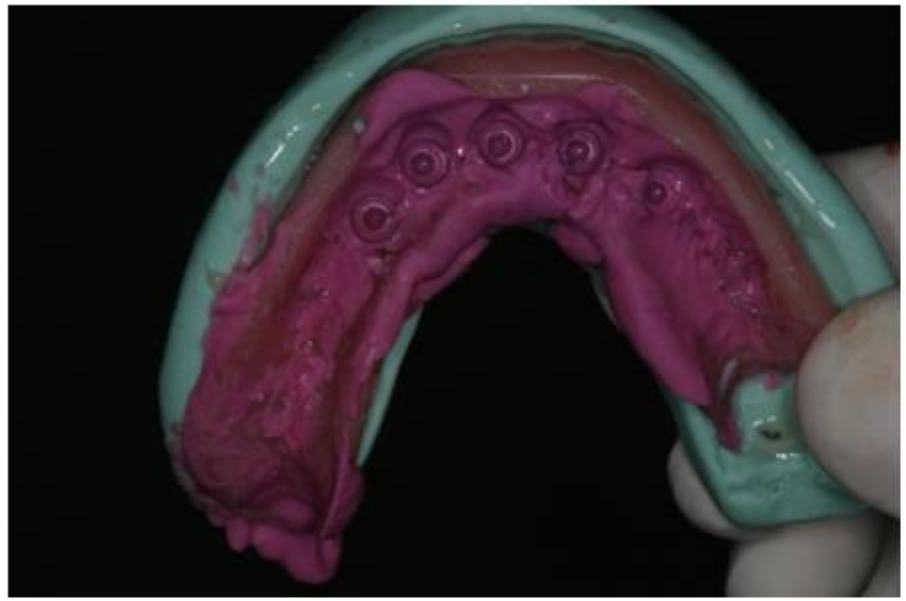
5. At the final try in visit, take an accurate bite to confirm that the position that the lab has is identical to the patient's.

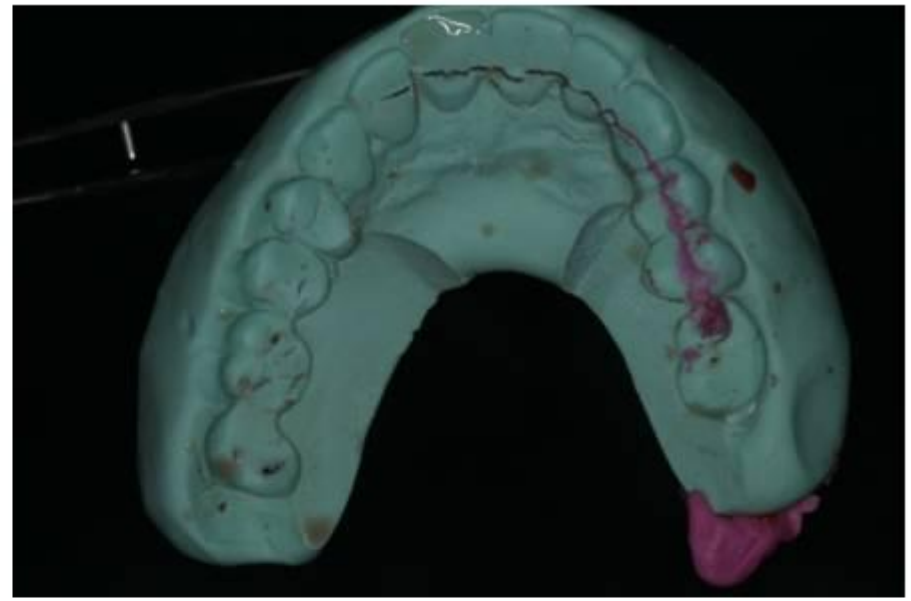


6. The lab will then process the lower prosthesis (and upper, if being done as well), and also fabricate a duplicate lower denture in clear acrylic which will be used as a surgical guide for the surgeon.

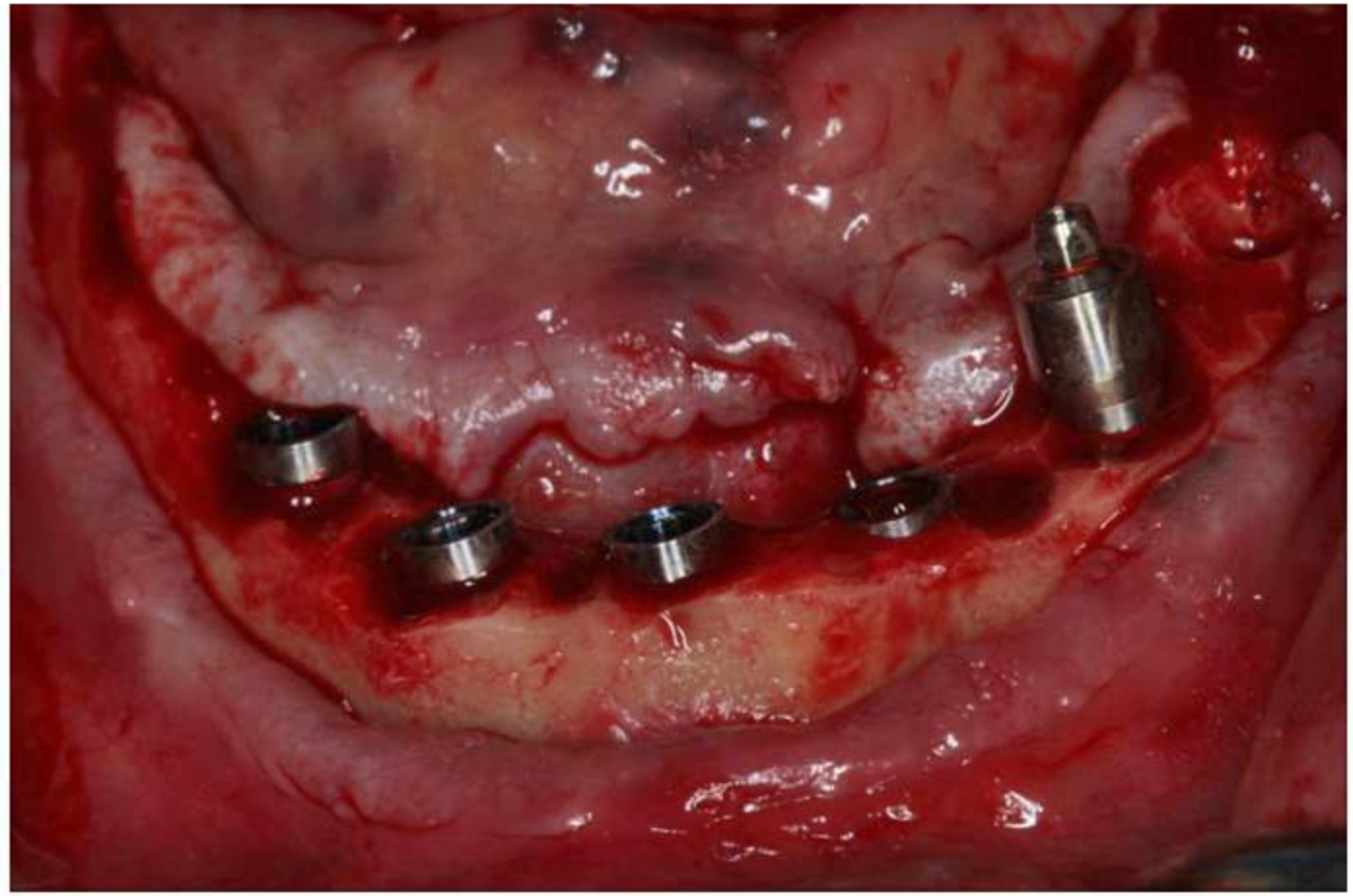


7. One of the most important pieces to establishing the correct position of the DIEM at the time of the surgery is to have an accurate bite registration of the patient's upper dentition (including the palate), against the new prosthesis. During the time of surgery, the surgeon reduces the anterior mandibular alveolar crest significantly prior to the implant placement. When it's time to place the lower prosthesis in, the only area that the lower will fill against is the posterior ridge. Without a good bite against the upper it becomes very difficult to determine the proper placement of the new lower prosthesis.

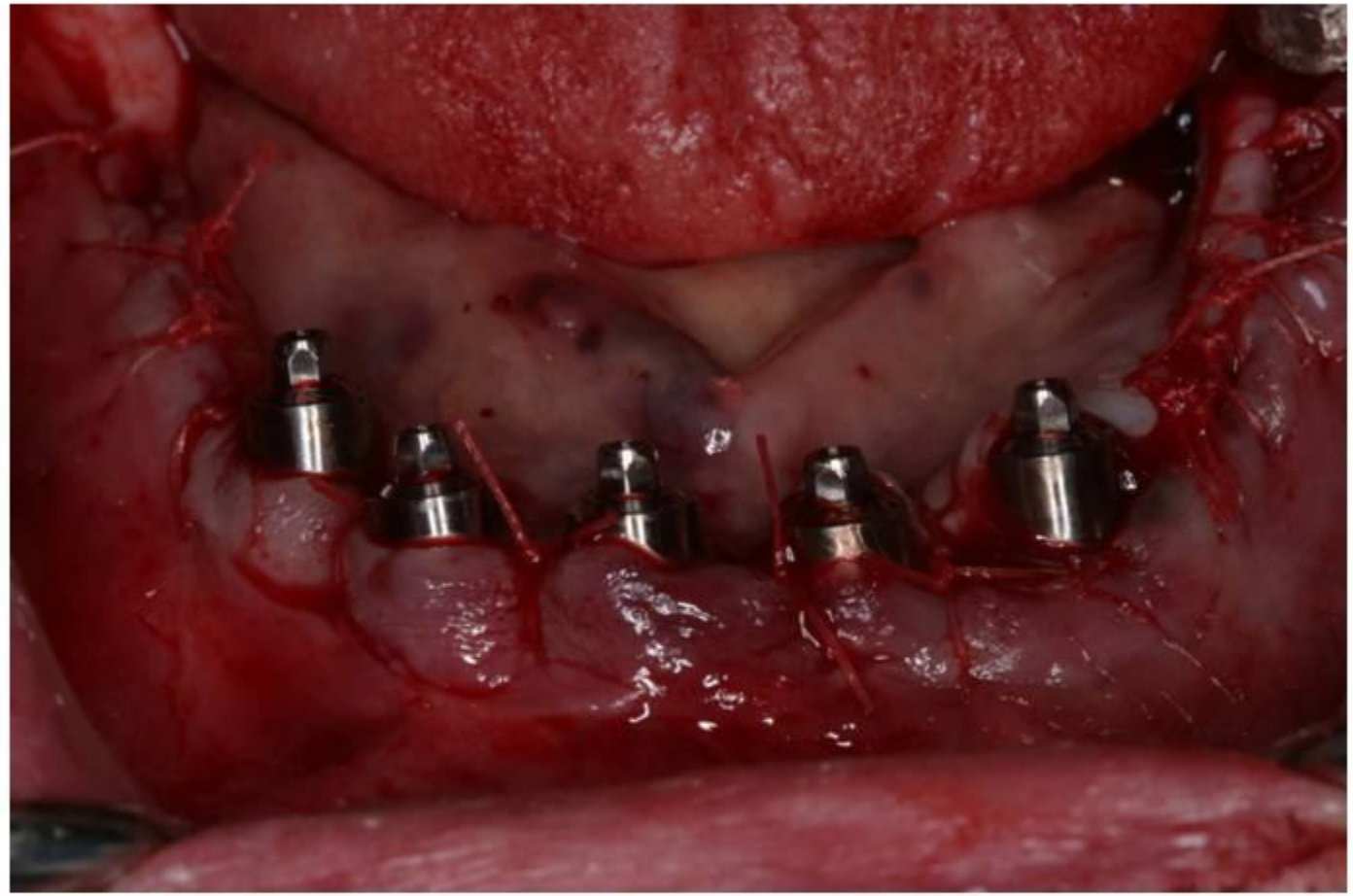




8. At the time of surgery it is unnecessary to be present until the implants are in place. It is at this point that the restorative dentist will take an impression and take the PVS quick set record (bite registration material such as blue mousse) of the space between the new prosthesis and the current ridge (with abutments of the implants).



9. Prior to suturing, Biomet 3I IOL abutments are placed on the implants. They come in both external and internal with various collar heights. The all have a 4.5 mm emergence.



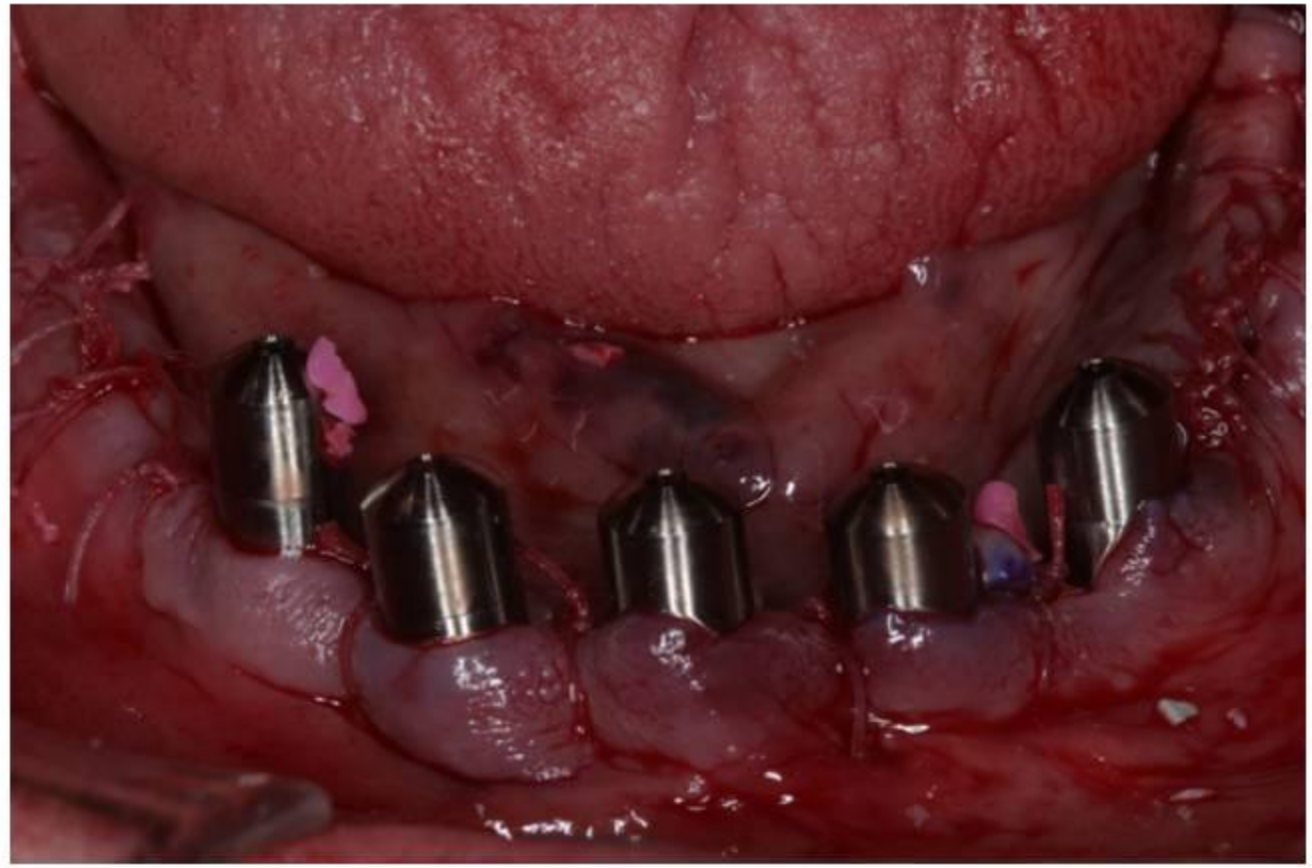
10. Place some petroleum jelly over the sutured area before the PVS record is taken.

11. Try in the prosthesis or prostheses. Place the critical bite registration material (that was fabricated in the lab prior to this visit) between the upper and lower and seat the lower in the posterior ridge. It will most likely have a space in the anterior. If it doesn't seat in the anterior because it is hitting the abutments (not usual), then relieve the tissue surface of the denture until it seats properly.

12. Remove the lower prosthesis, paint some PVS adhesive on the tissue surface, syringe bite registration material onto the denture and reseat the prosthesis with the proper bite.

13. It's time for the impression. Place all of the IOL Pick-up Impression Copings (IOLPIC). There is no need to lute the impression copings together since there is a natural micro movement if the implants during the first few days as the bone starts it's remodeling.
14. Try in a stock tray or pre-made custom tray for an open tray impression technique.

15. Take an impression of the IOL abutments.



16. Cover the IOL abutments with IOL healing caps (IOLHC) and the surgeon may need to resuture areas where there was pulling due to the bite registration material or the impression material.
17. Patient is completed and will visit the restorative dentist the next day to have the DIEM placed in.

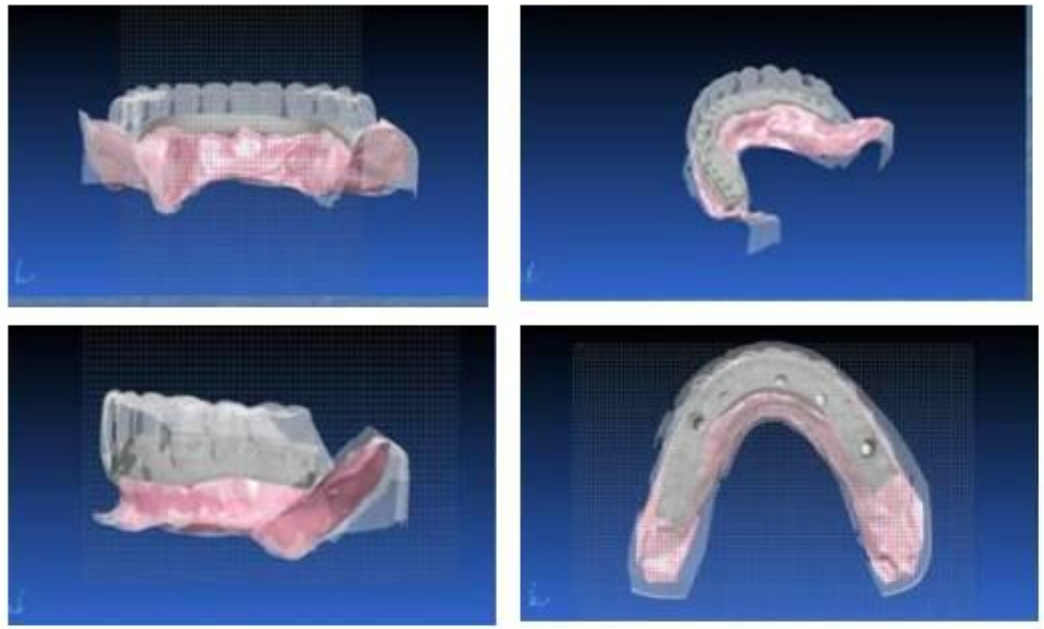
18. The lab will need laboratory analogs (IOLLAS) and temporary cylinders (IOLTC) in order to make the lower denture into a temporary implant supported fixed hybrid prosthesis.

19. Sometimes a lab may want to use the distal extension piece (IOLDE) to give a little more strength to the acrylic distal extensions.

20. The next day is the conversion day in the restorative dentist's office.

20. Simply remove the healing caps and place in the hybrid prosthesis. When screwing down a multiple unit implant supported prosthesis, we are taught that the screw should be passive until the final tightening turn or else excess forces will be placed on the implant or restorative components.

In this case, if any screws have friction as you are tightening them down, it is ok. The implants haven't been integrated yet and micro movement is expected at this point. Make sure the prosthesis is cleansable with floss threader or aid. Seal up screw holes with cotton and flowable composite.



4 months later the final case is designed virtually, milled from a block of titanium, then processed and finished in high impact acrylic.