

## Steps in construction of an interim dental implant-supported hybrid prosthesis:

1. Identify the desired tooth position (natural teeth, dentures, etc.) in order to plan for Implant placement.

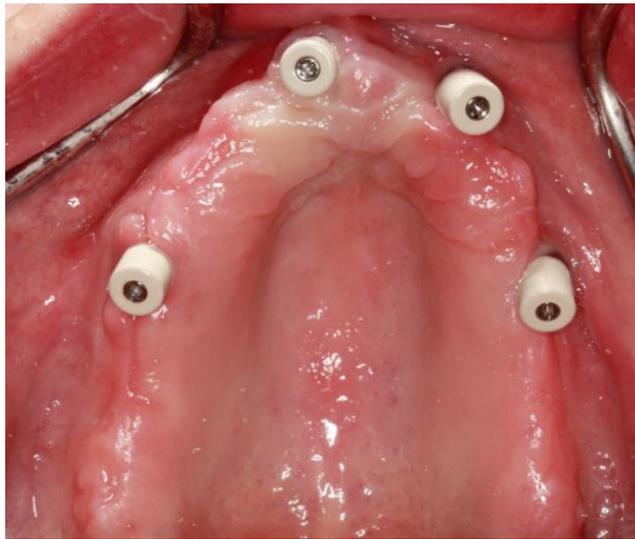


2. Make impressions with the goal being to construct upper and/or lower complete removable prostheses. The denture(s) are made to full contour in order to serve as a “contingency plan” if in the event dental implants is not feasible at the time of surgery.



3. Working with the remaining teeth or with the removable prostheses, use a CBCT to relate the desired tooth position to the supporting alveolar bone. The information can be used to construct a surgical guide whether analog-style by hand or computer-generated.

If working analog-style, construct a copyplast overlay of the removable prostheses to help in identification of the dental implant position in the conversion process.



4. **Prepare in advance the parts, materials and equipment necessary for the conversion of the removable denture to an interim hybrid prosthesis.**
  - a. Transitional abutments straight and angled with abutment screws
    - i. Have ready based on planning with CBCT
    - ii. May be appropriate to have additional parts on “stand-by”
  - b. Titanium temporary abutments with abutment screws.
    - i. Heatless stone to modify (shorten) the abutments as needed
    - ii. Light-body VPS to cover screw access holes during conversion
  - c. Auto-polymerizing pink acrylic (with plastic Monoject syringes), auto-polymerizing tooth colored acrylic, bis-acrylic and adhesive to attach the denture to the titanium temporary abutments

- d. Rubber dam to protect the surgical site during conversion
  - e. Laboratory hand-piece (straight) with 8 round bur and acrylic bur, silicone polishing points, acrylic polishing wheels, and brushes
  - f. Articulating paper
  - g. Removable denture(s), surgical guide and the corresponding copyplast overlay
6. At the time of conversion, place the transitional abutments and check for clearance that may require a slight correction (removal) of soft or hard tissue
- a. Soft tissue clearance (tall enough abutment)
  - b. Clearance of alveolar bone, particularly with angled abutments
8. Place titanium temporary abutments and insert the copyplast overlay to check for position and height of the abutments. Mark the copyplast overlay to identify dental implant position, then make holes and insert to check. When the holes are in the right place, modify the titanium temporary abutments to the correct height. Replace the titanium temporary abutments and place light-body VPS to protect the access openings to the abutment screws.
9. Place the copyplast overlay onto the denture(s) and make holes for the titanium temporary abutment, then evaluate for minor adjustments.



9. If the patient is fully edentulous, work to position the upper teeth first using the palate as a reference point.
  - a. If the planned treatment is for an upper denture and teeth have been removed, it may help to add tissue-conditioning material to optimize the position of the removable prosthesis.
  - b. If the planned treatment is for an interim upper hybrid, then identify a reference point to help maintain tooth position while the material used to attach the denture to the titanium temporary abutments is polymerizing.
  
10. Prepare the surface of the denture modified to accept the acrylic used to attach the titanium temporary abutments. Place a rubber dam to protect the surgical site.
  - a. Either wet the area with liquid monomer if working with methyl-methacrylate or with adhesive if working with bis-acrylic. Prepare the acrylic to inject and dry the titanium temporary abutments.
  - b. Add material to the denture as well as the titanium temporary abutments and insert. Hold the upper denture in place based on previously identified reference points, and have the patient close to hold the lower in “centric relation” position. Allow the material to cure and evaluate each abutment for attachment to the interim prosthesis (denture).



11. Remove the interim hybrid(s) and the rubber dam, and evaluate the tissues. Backfill the interim hybrid as needed to fill out the contour, and cover around the titanium temporary abutments. Polish with silicone points, polishing wheels and pumic.



12. Replace interim hybrid(s) and evaluate contact with the soft tissue as well as occlusal contacts in order to adjust as necessary.



13. Fill access holes with light-body VPS and either bis-acrylic or composite to protect access holes.
14. Monitor patient during the healing process.