

1. Primary Impression (Manual Technique)

- Take a primary impression using standard impression trays and a suitable impression material to capture the general shape of the edentulous arch.

2. Secondary Impression with Border Molding

- Use custom trays and a border molding technique to take a secondary impression, capturing the complete functional and anatomical contours for a precise fit and proper muscle adaptation.

3. Wax Bite Registration for Jaw Relationship

- Record the patient's bite using wax rims to establish the correct vertical and horizontal jaw relationship. Mark the necessary smile line, midline, and canine positions to ensure accurate transfer for the final design.

4. Mounting on the Articulator

- Mount the master cast and wax bite registration on a dental articulator to simulate jaw movements and occlusion for accurate denture arrangement.

5. Scanning on a Desktop Scanner (Laboratory Step)

- Digitally scan the master cast and wax bite registration using a high-precision desktop scanner in the lab to create a digital model.

6. Digital Design of Teeth Arrangement

- Utilize CAD software to design the teeth arrangement and generate a digital model of the denture. Consider factors such as occlusion, aesthetics, and function.

7. 3D Printing of Trial Denture (Beige Resin)

- Print the trial denture using beige-colored resin or another suitable material. This trial denture is used for fitting and verification of aesthetics and functionality.

8. Trial Denture Confirmation in Patient's Mouth

- Place the trial denture in the patient's mouth to verify fit, occlusion, aesthetics, speech, and overall comfort.

9. Adjustments (If Needed)

- If minor corrections are needed, realign the trial denture or take a new bite registration directly on the trial denture to ensure a more accurate fit.

10. Repeat Trial Denture (If Major Correction Required)

- If there are major corrections, modify the digital design and reprint the trial denture. Reconfirm the fit and functionality in the patient's mouth until the desired result is achieved.

11. Final Denture Printing

- After the trial denture is confirmed, proceed to the final printing of the denture using the selected permanent material.

12. Final Denture Fitting and Patient Instructions

- Check the final denture for proper occlusion, fit, aesthetics, and patient comfort. Provide detailed instructions on how to wear, maintain, and care for the denture to ensure long-term success.

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