



TRANSFERRING THE EXISTING OCCLUSAL VERTICAL DIMENSION USING A DUPLICATE DENTURE

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In patients for whom a fixed complete denture is required, different techniques are described to determine the occlusal vertical dimension such as rigid, stable, and accurate record bases¹, gold cylinders,^{2,3} healing abutments, and others.⁴ This article describes a procedure using a duplicated complete denture to replicate the occlusal vertical dimension in a patient with implants. Several techniques were used to determine the accuracy of this procedure, including determining the occlusal vertical dimension after the fabrication of new record bases and occlusal rims and measurements using extraoral landmarks. After using these techniques, it was determined that the procedure presented produced an accurate occlusal vertical dimension for the patient presented.

PROCEDURE

1. Screw 3.0-mm titanium healing abutments (Branemark; Nobel Biocare AB, Goteborg, Sweden) to the endosseous implants (Fig. 1, A).

2. Secure close tray impression copings (Fig. 1, B) (Branemark; Nobel Biocare AB) and make an impression with a closed tray and vinyl polysiloxane impression material (Extrude High Consistency and Low Consistency; Kerr Corp, Orange, Calif).

3. Make an impression of the maxillary teeth using irreversible hydrocolloid (Jeltrate; Dentsply Caulk, Milford, Del).

4. Pour both impressions with type IV gypsum (Microstone Stone; Whip Mix Corp, Louisville, Ky)

5. Make a face-bow transfer to transfer the maxillary cast to the upper member of the articulator (Waterpik Technologies, Ft. Collins, Colo). Make an interocclusal registration with the denture in place using vinyl polysiloxane material (Exabite; GC America, Alsip, Ill) by guiding the pa-

tient into the centric occlusion position.

6. Mount the maxillary cast using plaster (Whip Mix Corp).

7. Duplicate the mandibular complete denture using a denture duplicator (Lang Dental Mfg Co, Wheeling, Ill) and irreversible hydrocolloid (Jeltrate; Dentsply Caulk).

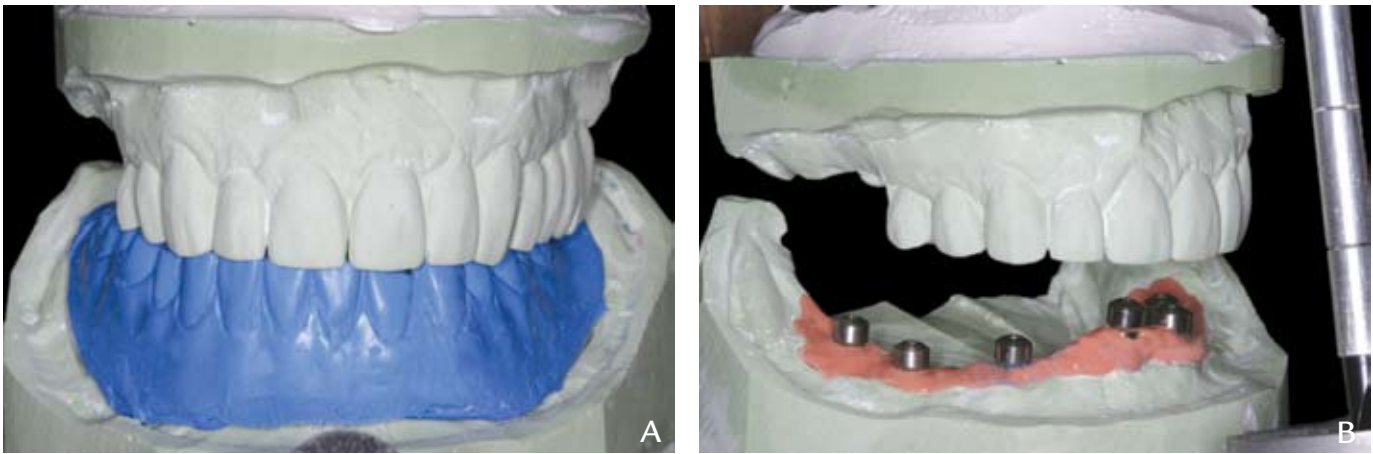
8. Place vinyl polysiloxane (Extrude Low Consistency; Kerr Corp) in



1 A, Three-mm-high healing abutments in place. B, Close tray impression copings.

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2 A, Maxillary stone cast articulated with mandibular VPS duplicated denture. B, Lateral view of maxillary and mandibular cast articulated at correct occlusal vertical dimension.

the duplicator flask and allow the material to polymerize.

9. Place the duplicate complete denture made with the VPS material onto the mandibular cast until it snaps into place. Do not apply excessive pressure to the assembly due to the flexible nature of the material.

10. Mount the mandibular cast on the articulator using the interocclusal registration (Fig. 2, A).

11. Remove the duplicated complete denture from the mandibular cast (Fig. 2, B).

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