An accurate transfer of the interocclusal relationship to the articulator is essential for the fabrication of a prosthesis. The accurate articulation of working casts results in less time spent adjusting occlusion. This has a direct effect on the quality of the restoration and the operational cost of treatment. Therefore, an ideal registration material and technique combination would allow the placement of an indirectly fabricated prosthesis intraorally with minimal occlusal adjustment.

Accuracy, durability, resilience, ease of use, and dimensional stability are among the properties to consider when selecting a registration material. Studies have shown that none of the available registration materials exhibit absolute dimensional accuracy, and that most of them show evidence of dimensional change over time. It is the clinician who must compensate for the shortcomings while taking advantage of the more desirable characteristics of these materials.

To articulate maxillary and mandibular casts in maximum intercuspal position, tripod vertical support and horizontal stability between the 2 casts are required. Manual articulation of the casts when a tripod vertical support exists has been shown to be more accurate than using an interocclusal record. The critical issue in manual articulation is that the tripod contacts must be widely spaced. Without at least 3 widely spaced contacts, the casts may not be stable when they are secured together.

Rigid occlusion record registration materials such as autopolymerizing acrylic resin copings or bis-acrylic resins are frequently used to record and transfer this third point of contact of the opposing dentition by using the prepared teeth. Flexible interocclusal registration materials are not suitable for vertical support because they distort when casts are compressed during articulation, but they do provide for horizontal stability when the dentition is worn.

A method of registering an interocclusal record when a tripod contact has been lost due to the crown preparation of the 6 anterior maxillary teeth is described. A combination of a bis-acrylic composite resin for rigid vertical support and a vinyl polysiloxane material to facilitate horizontal positioning of the casts for accurate mounting is presented.

**PROCEDURE**

1. To tripod the registration, select the prepared abutment teeth closest to the midline.
2. Lubricate the teeth selected for the occlusion record registration, including the opposing teeth, with petroleum jelly (Vaseline; Unilever, Englewood Cliffs, NJ).
3. Guide the patient into maximum intercuspation and apply bis-acrylic composite resin (Integrity; Dentsply

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**1** A, Bis-acrylic composite resin capturing anterior preparations. B, Injection of vinyl polysiloxane occlusion record registration material around preparations and remaining teeth.

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2. Leggat PA, Kedjarune U, Smith DR. Toxicity of cyanoacrylate adhesives and their occupational tort when casts are compressed during articulation, but they do provide for horizontal stability when the dentition is worn.

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**INTEROCCLUSAL RECORD FABRICATED WITH BIS-ACRYLIC COMPOSITE RESIN AND VINYL POLYSILOXANE REGISTRATION MATERIAL**
Bis-acrylic composite resin/vinyl polysiloxane record after removal.

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**REFERENCES**


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