

## Indications for Impression/Articulation type

Dr. Van B. Haywood 09

Full arch impression mounted on semi-adjustable articulator:

1. Functional movements reproduced in prepared tooth
2. Disrupted occlusal plane to be corrected
3. Removable partial or complete denture to be fabricated
4. Minimal vertical stops on preparation side
5. Significant lateral movement of condyles (Bennett)
6. Esthetic balance between sides important

Limitations of semi-adjustable articulator:

1. Articulator is most accurate with IP to CR relationships, the closer to tooth contact the interocclusal record is made. Protrusive excursive records produce a more shallow condylar setting than lateral records. Only lateral records capture immediate or progressive sideshift.
2. Cannot easily set the condylar housing with lateral excursive interocclusal records if centric relation does not equal maximum intercuspation, and the teeth will be restored in maximum intercuspation. Protrusive records do not record lateral mandibular movements.
3. Cannot set condylar housing with lateral excursive interocclusal records if non-painful reciprocal click (anteriorly displaced disk with reduction) is present and most retruded position is not coincident with maximum intercuspation. However, indicated protrusive records do not record immediate or progressive sideshift of mandible.
4. When minimal occlusal stability exists due to many missing teeth, mounting requires baseplate and occlusion rim. If the tooth to be crowned (such as in a non-survey crown for an RPD) is not involved in function, and more accurate MI position may be obtained using a quadrant technique to take advantage of the posterior determinants of occlusion (condylar support).

Importance of facebow:

1. Anterior esthetics (inclination of central incisors when viewed from a lateral position)
2. Plane of occlusion in complete dentures
3. Arch of closure if altering VDO

**If Correctly-located occlusal contacts disocclude in functional excursions, then only an IP (MI) articulator relationship is necessary (simple hinge):**

**Full arch impression** mounted on hinge articulator (Stephen articulator; Whipmix as hinge):

1. Removable partial denture with reasonable occlusal stability
2. Any crown or FPD not involved in function with reasonable occlusal stability
3. Esthetics/occlusal plane of other side important

**Quadrant impression** and bite registration/impression of opposing arch:

1. Patient access problematic due to tooth position, tongue, saliva, gagging, or opening.
2. Conservation of materials
3. Minimal changes to occlusal scheme
4. Reciprocal click as above
5. No occlusal stability on the unprepared side

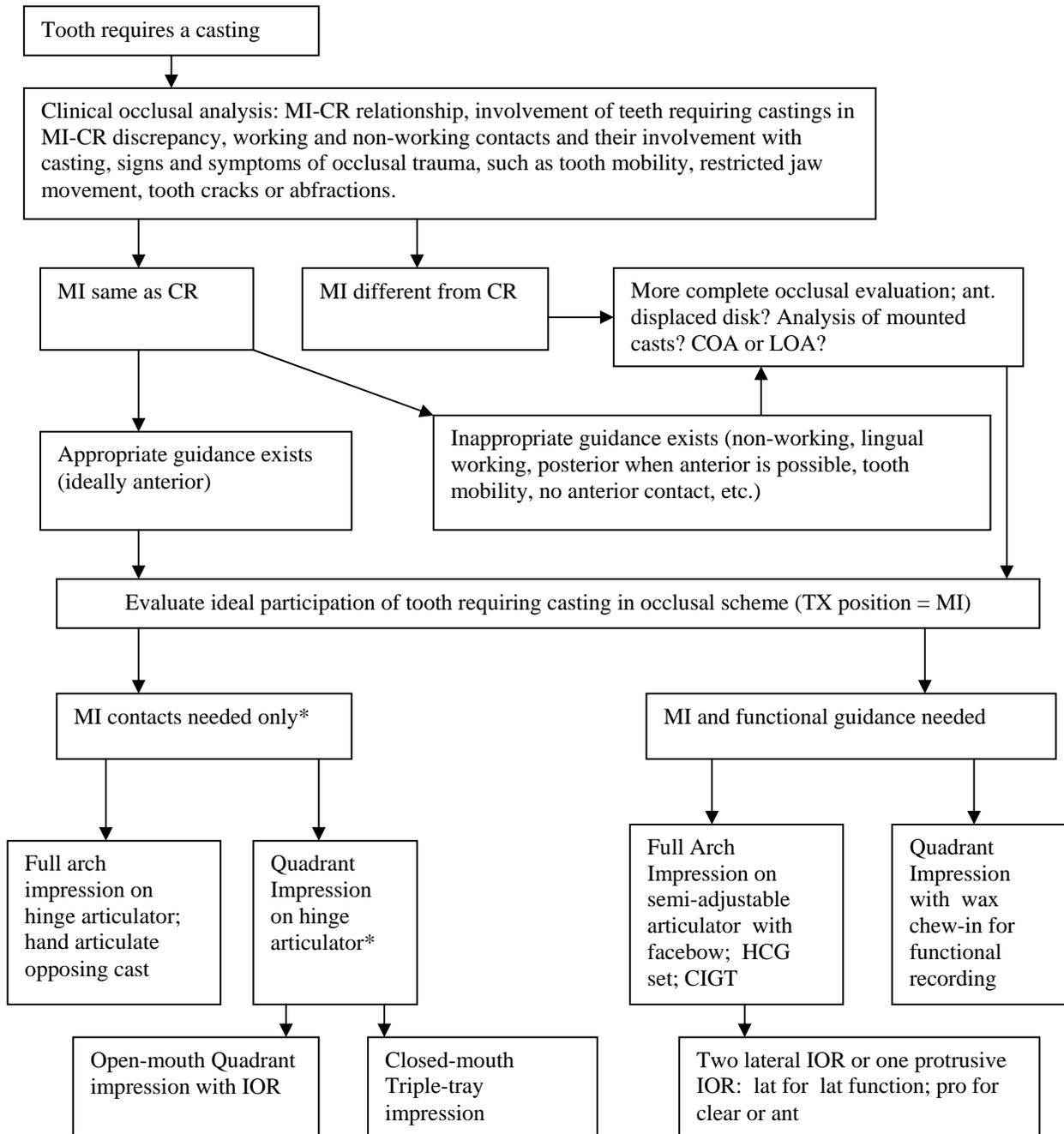
**Technique:** in addition to traditional Quadrant PVS impression

1. IOR taken with sideless tray and PVS bite registration paste (take two to confirm MI closure)
2. Pour impression and generate working cast using Pindex; trim die
3. Seat IOR on working cast, lute in place; pour opposing side; mount, then separate

**Triple tray impression:**

1. Gagging patient
2. Conserves materials and time
3. May be limited by impression materials types to use: laboratory procedure more complex
4. Cannot use Pindex die system; do not know if have bubbles on margins until mounted

## Determination of the correct impression type, articulation method, and inter-occlusal registration for a casting VBH 98



\*To use a quadrant technique on a hinge, it must be determined that PROPERLY LOCATED MI OCCLUSAL CONTACTS WILL DISOCCLUDE IN LATERAL FUNCTIONAL MOVEMENTS. This determination may be achieved through the following:

1. Correct occlusal contacts exist pre-operatively (naturally or via occlusal adjustment), and disocclude correctly.
2. Diagnostic casts are mounted on an articulator and a diagnostic wax-up demonstrates disocclusion.
3. A provisional restoration fabricated in the mouth can be altered to serve as a diagnostic wax-up to demonstrate disocclusion.