

COMPOSITE ADDITION BEFORE EQUILIBRATION FOR OCCLUSAL DYSFUNCTIONS

Fill Fossae—before equilibrating to remove lateral interferences—because:

- The lateral interferences may also be the closure stopping contact or be close to the closure stopping contact and
- Equilibration without this step may result in loss of V.D. stops, resulting in the closing of the vertical dimension and increasing discomfort!

Because:

- Anteriors will close, increasing the overbite and further restricting the envelope of function of the mandible and producing a more retrusive or distractive condylar position by either mechanical force or neurologic muscle avoidance.
- Eliminates bite planes in most cases except those requiring a large V.D. change or those with gross arch to arch misalignment.

OBJECTIVES:

1. Axial loading of posterior teeth. Two rows of centric contacts may be established which straddle the vertical tipping axis of the teeth.
2. Elimination of all working and non-working contacts, either side of the two closure stopping contacts.
3. Restoration of lost vertical dimension when required.
4. Cuspid contact in centric is established when not present—should be bonded gold additions. Composite will abrade lower cuspid = loss of contact.
5. Anterior envelope of function established. Cuspids and anteriors must not occupy space belonging to the muscles. (Hollow grind from centric outward over a period of trial, observation, symptom evaluation and correction).
6. Eliminates disadvantages of bit planes:
 - a.. Encroachment on tongue space and airway—thus compounding the present problem.
 - b. Difficulty of establishing cusp form in acrylic which will distribute forces down long axes of teeth in the uncovered arch. Tooth contacts on bite planes are almost always on buccal and lingual cusps or on lower buccal or upper lingual cusps only. It is not possible to load the teeth in only a vertical direction with the lower buccal cusp only—or the upper cusps only in contact—one of them will constitute a tipping interference (lingual on lowers—buccal on uppers). This is a neuromuscular stimulus which should not exist in a therapeutic treatment occlusion. Therapeutically successful occlusions, like mans expected evolved mature dentition are both centrally loaded. The other possibility is that the tips of both buccal and lingual cusps will be in contact. This also will cause tipping forces to the teeth in the uncovered arch.
 - c. Patient can remove it, therefore it is palliative, not curative.
 - d. Lack of cleanliness.
 - e. Frequent adjustments.
 - f. Speech difficulty.

DONALD G. SMITH, D.D.S.
299 ALHAMBRA CIRCLE
CORAL GABLES, FLA. 33134

ADVANTAGES:

Rapid resolution of symptoms without tooth preparation. Patient confidence established early.

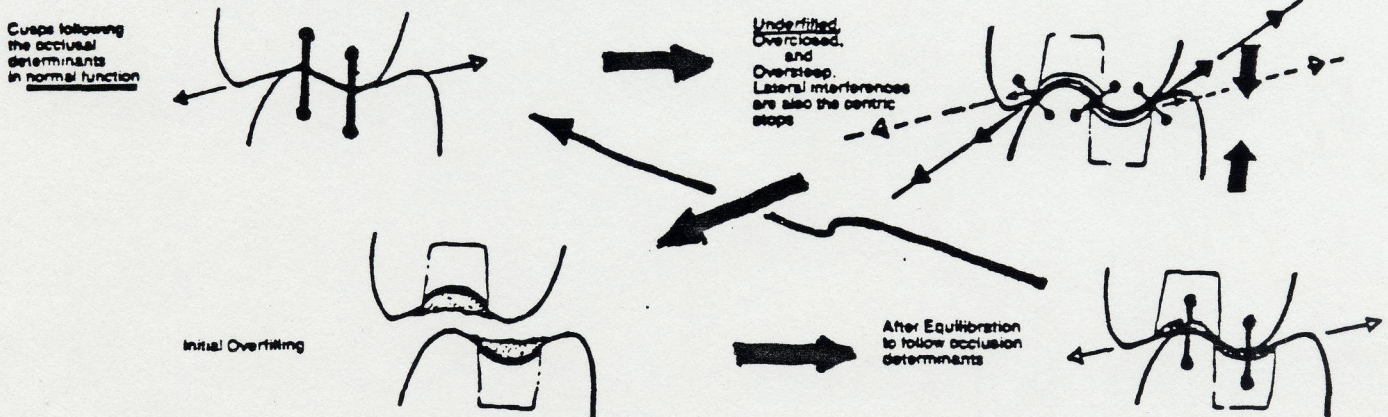
1. Neuromuscular—head and neck symptoms reduced.
2. Painful mastication reduced.
3. Acute periodontal pathology reduced.
4. Provides a blueprint for final individual restorations. Occlusion determinants (while only estimated) may be tested in the mouth. Proper vertical dimension tested and approved. Proper cusp positions, cusp height, fossa depth and groove direction are established.
5. You know the patient is using it 24 hours a day. It therefore has diagnostic validity.
6. Eliminates the dangers of equilibration without fossa build-up (closing vertical dimension, increase anterior overbite and retrusive mandibular displacement).
7. Eliminates need to prepare all involved posterior teeth for temporary restorations until symptom free function has been established.
8. Makes it possible to restore posterior teeth when convenient rather than requiring preparation and restoration of all the teeth at one time and use of fully adjustable articulators in many cases.

DISADVANTAGES:

1. Requires chair time.
2. Requires occlusion knowledge.
3. Becomes laborious for large changes in vertical dimension.

EQUIPMENT AND SUPPLIES:

1. Knowledge of Gnathologic tooth form and occlusal determinants.
2. Composite material and etching agent.
3. Acrylic/composite—preconditioning agent for bonding to metal and porcelain—"Fusion"—George Taub Co.) (or others, Scotchbond, etc.)



Step 1 Typical Tooth Corrections — AFTER FILLING UP ALL LOW, UNDERFILLED FOSSAE

(in Angle Class I occlusion)

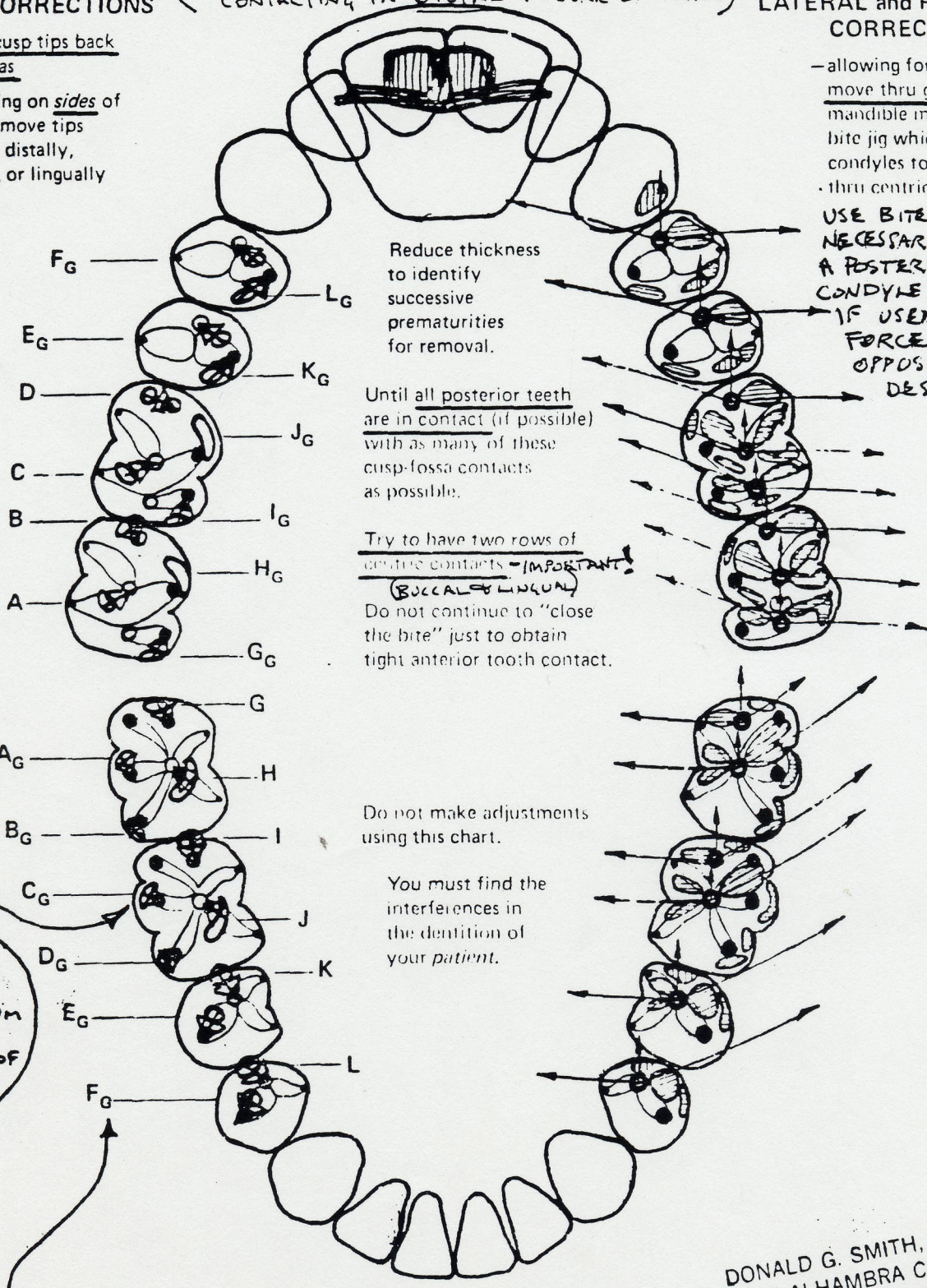
TYPICAL CENTRIC CORRECTIONS

- ✓✓ Putting cusp tips back into fossas
- by grinding on sides of cusps to move tips mesially, distally, buccally, or lingually

(WORST CASE IS WITH LOWER BUCCAL CUSPS CONTACTING IN DISTAL FOSSAE OF UPPIERS)

TYPICAL LATERAL and PROTRUSIVE CORRECTIONS

- allowing for cusps to move thru grooves as mandible moves against bite jig which allows condyles to pass thru centric
- USE BITE JIG ONLY IF NECESSARY — IT ACTS LIKE A POSTERIOR/SUPERIOR CONDYLE POSITIONER — IF USED WITH MUCH FORCE — JUST THE OPPOSITE OF THE DESIRED RESULT



KEEP LOWER BUCCAL CUSP TIPS AWAY FROM THE BUCCAL PERIMETER OF THE TEETH

G = GRIND HERE
- TO MOVE CUSP INTO FOSSA

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299 ALHAMBRA CIRCLE
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➔ This drawing assumes a typical Class I tooth to tooth relation. When other tooth to tooth relations exist it is necessary to:

1. Warp cusps into fossas by grinding — think first about lateral movement.
2. Carve out adequate grooves for lateral movement.

SYMPTOMS OF E. OF F. CONFINEMENT AND NON CENTRAL POSTERIOR LOADING

A INHIBITORY (TMD)

MASTICATORY MUSCLE PAIN
CLICKING OR POPPING
EAR PAIN
RETRODISCAL PAIN
LATERAL POLE PAIN
POSTERIOR DIGASTRIC M.
TENDERNESS
NECK MUSCLE TENDERNESS
MIDDLE EAR TINNITUS
HEADACHES ETC.

B FACILITATIVE (BRUXING)

BRUXING
MOBILE TEETH
GINGIVAL RECESSION
SENSITIVE TEETH
CLEFTING
FRACTURED TEETH
FRACTURED PORCELAIN
ACCELERATED BONE LOSS
ABFRACTION
ETC.

ORDER OF IMPORTANCE:

1. PROTRUSIVE FREEDOM (ANTERIOR ENVELOPE OF FUNCTION)

A. VERTICAL DIMENSION?

WILL IT CURRENTLY ALLOW THE ENV. OF FUNCTION TO BE INCREASED
WITHOUT A V.D. INCREASE?

B. FOSSA DEPTH?

ARE FOSSAE HIGH ENOUGH TO PROVIDE CONTACT WITH OPPOSING CUSPS
TIPS WHEN CUSPS ARE WARPED INTO PROPER POSITION?

2. CENTRAL AXIS LOADING OF POSTERIORES

- REQUIRES TWO ROWS OF CONTACTS

3. SEEK "CENTRIC RELATION"

- EASILY AVAILABLE FOLLOWING 1. AND 2.

NOT EASILY AVAILABLE BEFORE 1. and 2.

TMD "TREATMENT"

THE DENTIST TRIES DESPERATELY
TO FIND "CENTRIC RELATION"

WHILE:

THE PATIENT TRIES DESPERATELY
TO FUNCTION AWAY FROM
"CENTRIC RELATION"

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CONCLUSION: "CENTRIC" IS NOT THE PROBLEM