

ABORIGINAL MAN
(Four million years of tooth adaptation to biological needs)

TEETH ERUPT with sharp pointed steep cusps, deep fossae

INTERLOCK to find each other, establish interlocking opposition, establish intact arch form

RAPID TRANSITION TO ATTRITION PRODUCING FOODS

NO DENTISTS TO UNDERFILL and steepen posterior tooth forms or fill fossae with material softer than original enamel

WEAR OCCURS to slowly modify natural tooth forms from steep adolescent forms so that they allow the mandible to accommodate to other more life sustaining functions of head, neck, etc.

POSTERIOR TEETH ARE NOT DEPRESSED BY CLENCHING since lateral interferences are worn away as fast as postural and function change demands.

ANTERIOR TEETH NOT OVERERUPTED nor further locked in (incisal guidance not steepened) because posteriors are not intruded by clamping and incisal wear occurs allowing a gradually larger envelope of function.

ATTRITION BETWEEN TEETH allows space for full complement of 32 teeth

MANDIBULAR ARCH OF TEETH can slide freely laterally and protrusively against maxillary teeth

"ANTERIOR SKID" remains in place-protecting petrotympanic area. "Centric" not at its rearmost ligamentous limits.

MANDIBLE MAY EASILY MOVE in a non-restrictive envelope of function

TEETH WEAR TO ACCOMMODATE to head, neck, posture, and airway form and function changes (rather than the opposite as occurs in civilized man). Interferences never become too noxious to brux away, therefore never become "avoidance" type interferences since attrition is constantly occurring on demand

POSTERIOR DISPLACEMENT OF MANDIBLE does not occur, therefore cervical vertebrae do not hyperextend etc. Discs displace, etc.

CONDYLES FUNCTION more forward (not more rearward) as changing airway and other physiologic demands may require-and as incisors flatten (envelope of function broadens)

TOOTH STRUCTURE does not occupy space which rightfully belongs to muscular activity

TEETH DO NOT CAUSE NEUROLOGIC INPUT TO HIGHER CENTERS-tooth structure is slowly expendable

MANDIBLE FUNCTIONS MORE ANTERIORLY WITH AGEING-vertical enamel rods of upper and lower central fossae gradually oppose each other so that loss of V.D. is minimal. Horizontal rods at periphery easily shear off for self equilibration. It is not a "balanced" occlusion but rather a series of upper and lower pairs of teeth with each loaded down its vertical axis

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MODERN MAN
(Civilized People. In other words: Us)

TEETH ERUPT-sharp pointed steep cusps, deep fossae

INTERLOCK-to find each other, establish interlocking opposition, establish intact arch form

FOLLOWED BY:

SLOW OR NO TRANSITION TO ATTRITION-PRODUCING FOODS

LITTLE TOOTH WEAR-non-abrasive diets

DENTISTS FILL OCCLUSAL CAVITIES but this often results in:

Low fillings

Softer material is placed in most wear-resistant vertical stop area of posterior teeth.

Vertical alignment of Enamel Rods near central fossae wear very slowly, but this is often replaced by Amalgam, etc., which wear more rapidly and is usually also underfilled.

POSTERIOR TEETH BECOME STEEPER: more locked in against lateral grinding movements, result is increase of avoidance-type muscular activity in head and neck. Interferences become too noxious to grind or brux away-too steep and locked, therefore:

VERTICAL CLENCHING IS USED TO RELIEVE MUSCULAR TENSION-causing

Intrusion of back teeth

Overclosure of jaws (loss of vertical dimension) and increased overbite

INCREASED OVERBITE OF ANTERIOR TEETH

Compounded in later years by more underfilled "low" fillings and concept of a retruded "centric" bite in therapeutic dental treatments and removal of "anterior skid." Reduced forward freedom of mandibular movement.

LOCKED ANTERIOR TOOTH STRUCTURE: Increasing overlap of anterior teeth which are too well innervated to allow muscles to wear away the tooth enamel. Causing:

POSTERIOR INHIBITORY REFLEX MANDIBULAR MOVEMENTS to avoid noxious anterior tooth contact result in:

1. **Adaptation by avoidance**-muscular inhibition to prevent "noxious" tooth contact against distalizing inclines of upper teeth. Mandible is reflexly retruded:
 - a. **Hyperextension of cervical spine**
Decreased posterior joint space of cervical vertebrae-reduced McGregor angle.
Hyperactivity of posterior cervical and shoulder muscles-nerve and artery entrapment-headaches, neck pain and etc.
 - b. **Tongue retruded**
Higher hyoid bone position
Posterior digastric tenderness
Swallowing difficulty

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c. **Mandibular Condyles retruded**

1. Posterior-inferiorly-beyond disc?

2. Posteriorly

Into retrodiscal space

Over posterior lip of disc-leading to disc displacement

Onto vascular retrodiscal tissue

Edema-vascular restrictions, headache

Hematemesis

Pain

Swelling

Petrotympenic fissure into middle ear? Ear pain, hearing disturbance, tinnitus,

Pintos Ligament

Mandibular Malleolar Ligament

Chorda Tympani Nerve

2. **Adaptation by facilitation**-Muscle activity is great enough and/or interferences are not so noxious:

a. Patient attempts to self equilibrate by bruxing

b. Lateral thrust and torsion around axes of teeth-Bone Loss

c. Tooth Sensitivity or cusp fracture

d. Gingival recession

e. Clefting, etc.

TOOTH STRUCTURE OCCUPIES SPACE WHICH INTERFERES WITH VITAL BODY FUNCTIONS AND MUSCULAR ACTIVITY

Teeth initiate neurological input into reflex mechanisms, C.N.S., limbic and reticular systems through complex avoidance mechanisms.

Teeth may survive almost untouched

Patient lives with head and neck pain seemingly not related to teeth and mouth.

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