

Jaw Orthopedic Therapy in an Anti-aging Regimen

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Teeth height is a critical factor in the development of multiple symptoms typically associated with aging. The effect of tooth height on health is obscure knowledge that is not taught in dental schools; hence it is seldom understood or diagnosed by the average dentist. The following aging symptoms may be bite related and should be evaluated by a dentist with jaw orthopedic experience:

- Hearing loss
- Cognitive decline/ poor memory
- Poor balance
- Tremors or other movement disorders
- Stroke
- Repetitive pneumonia
- Chronic sinusitis
- Depression/anxiety
- Skin disorders
- Weakness/fatigue
- Decreased smell
- Blood disorders
- Osteoporosis
- Varying visual acuity
- Headaches, neck pain
- Systemic pain
- Poor sleep
- Obstructive sleep apnea
- Irritable bowel syndrome
- Rigidity/stiffness

There are multiple ways that insufficient height in the bite can be acquired:

- Normal wear over a lifetime can significantly wear teeth; particularly in someone who is predisposed (i.e. partially compromised from birth)
- Congenital inheritance of insufficient bite height causing excess overbite (deep bite)

- Loss of teeth or poor restorative treatment
- Extraction of teeth for orthodontic purposes
- Airway obstruction causing mouth open posturing (e.g. deviated septum, obstructive sleep apnea)

There are multiple pathways by which lowered tooth height impacts body functions.

- The primary mechanism is by way of increasing tonicity within the trigeminal nerve leading to elevation of the pain neurotransmitter in the body (“substance P”). The trigeminal nerve has one hundred times more dense pain fibers than any other nerve in the body, hence it predominantly effects the level of substance P in the body. The primary effect of elevated substance P is that it hypersensitizes all sensory neurons and it activates the inflammatory pathways. Substance P controls bone metabolism, vestibular system, and cell division. Elevated substance P is associated with a broad spectrum of medical conditions called neurogenic inflammatory disorders (seizures, migraine, eczema, IBS, etc).
- When the bite is off it affects the trigeminal nerve alignment sensors (trigeminal proprioceptors), which control body tension, sensory integration, movement, and sleep/wake centers
- The trigeminal nerve pain fibers mix with the upper cervical nerves, the vagus nerve, and the hypoglossal nerve, thus causing pain in those regions when the trigeminal is disturbed.
- Lower tooth height causes altered head posture leading to increase stress on the neck and spine
- Decreased blood flow to the brain by way of trigeminal vascular system
- Trigeminal modulates ascending spinal signal (reason why “biting the bullet” reduces pain perception in the body)

The solution for jaw malalignment is to align the jaw with a removable splint. This allows the jaw to be repositioned diagnostically to test whether the height is effective before permanently correcting the height. The diagnostic splint is typically worn four to six months before a permanent solution is implemented.

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