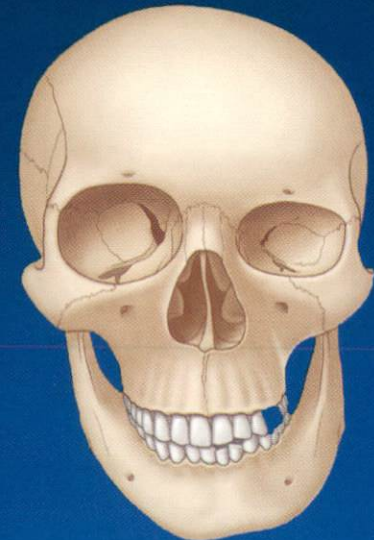
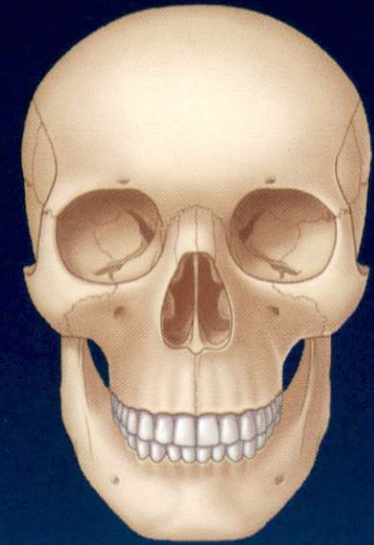


# CRANIAL DENTAL CONSIDERATIONS



\* This can change the ability to bite uniformly, overloading one side of the skull, resulting in unilateral muscle spasm to that side, facial pain, jamming the cranial sutures (joints between the individual cranial bones) causing intense headaches and pain in the neck, shoulder and skull.

## DESCENDING MAJOR

All these malocclusions change the relationship between the maxillae (upper arch) and the mandible (lower arch). Neurologically, this irritates the trigeminal nerve complex and changes the relationship of the skull on the spine, and then the spine on the pelvis. Because this is driven by the dentition it becomes known as a Descending Major. This cranio – dental major gives rise to many, and often complex, varied symptoms within the neuro-musculo-skeletal system.

## RESOLUTION OF DESCENDING MAJORS

Descending majors may require dental intervention to help resolve the malocclusion and the “tooth to tooth” discrepancies. This may involve dental splints to retrain cranial muscles, and balance/reposition the mandible into an optimum functional position.

## ASCENDING MAJOR

When the cranio-dental complex is not involved as a primary area of dysfunction and a normal occlusion exists, then symptoms that affect the neuro-musculo-skeletal system, are driven by what is known as an Ascending major.

The differential diagnosis between an Ascending and Descending major is delineated by what is known as the Meersseman Test.

Ascending majors are usually resolved by stabilizing the pelvis, spine and cranium, utilizing chiropractic care.

## ORTHODONTICS AT PUBERTY

Controversial procedures about pubescent orthodontics should be examined with care and the ramifications understood.

When teeth are extracted at puberty for overcrowding and fixed orthodontic appliances are put in place, normal facial growth and development is inhibited and future problems will be faced when wisdom teeth come into being.

An alternative treatment for the same problem, will include arch expansion, to allow the crowded dentition to find symmetric positions for the individual teeth, without extractions, and consequently sufficient space to accommodate wisdom teeth.

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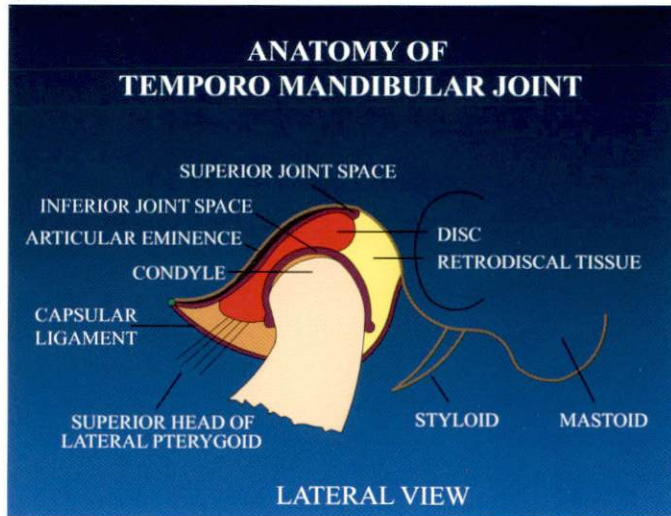
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## TEMPORO MANDIBULAR JOINTS

The jaws consist of the maxillae and the mandible. The maxillae consist of two bones, a left upper and right upper jaw. The mandible, the lower jaw, is one bone and is suspended from the two Temporo Mandibular Joints (TMJ), located in the two temporal bones. The TMJs are directly related to the two Sacro-Iliac Joints located between the Iliia and the Sacrum on either side of the pelvis. The left TMJ has a direct relationship with the right Sacro-Iliac (SI) Joint and the right TMJ with the left SI joint. The TMJ consists of the mandibular fossa (socket) in which the condyle of the mandible fits and articulates. Behind the condyle, and lining the fossa, is a nerve bed called the Retro Discal Tissue - a nerve bed - which is part of the vestibular mechanism - hearing and balance.

The mandible swings from the two temporo mandibular joints, and is suspended from these joints by the large Temporalis muscles, one on either side of the skull. Provided the two temporalis muscles are balanced, and the occlusion is balanced, the mandible will swing in a symmetric and uniform manner.



## DENTITION

By the age of 6 years, the mouth contains 20 deciduous teeth - 5 teeth per quadrant.

By the 12th year, the mouth contains 28 teeth. Each quadrant comprises of a medial (1) and lateral (2) incisor, a canine (3), 2 pre-molars (4) and (5), and two molars (6) and (7). That is seven teeth per quadrant.

In the early 20s the wisdom teeth (8) appear taking the full complement to 32 teeth, 8 teeth per quadrant.

Each tooth is inserted into the alveolus (tooth socket) lined with cranial fascia, and attached to the dentate ligament, which stimulates the maxillary branch (upper jaw) and mandibular branch (lower jaw) of the Trigeminal nerve.

Each tooth, through its socket, is dedicated to a nerve pathway, which in turn is dedicated to an organ, and a specific muscle group. Opposing teeth stimulate antagonistic muscle groups - flexors/ extensors, adductors /abductors and pronators / supinators.

## SWALLOW MECHANISM

According to Dr Willie May, in his book, "Arthritis Symptoms Related to Position and Function of the Mandible" every time one swallows, which is about 1000 times a day, the teeth of both jaws should come together symmetrically, simultaneously, and with the same amount of pressure. The dynamic of this action stimulates all the appropriate reflexes, and as such stimulates the brain in the same way that a computer is booted up. This is a normal occlusion.

This "tooth to tooth" reinforced back up, constantly keeps the neurological system at optimum function, and maintains structural stability throughout the neuro-musculo-skeletal system.

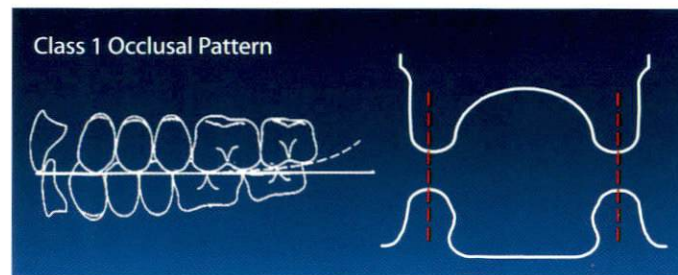
However, when the teeth of both jaws come together asymmetrically, out of synchronicity and with different pressure, the dynamic creates abnormal stress throughout the cranium and then subsequently throughout the rest of the neuro-musculo-skeletal system.

## OCCLUSAL CLASSIFICATION

There are three basic classifications for teeth formation.

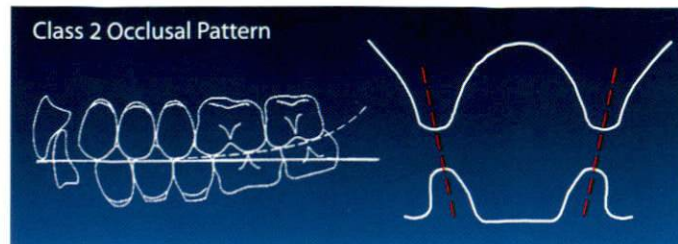
### CLASS 1

The upper arch is rounded and dome shaped, and the upper incisors just cover the lower incisors, resulting in a uniform, non crowded dentition. Potentially not a problem



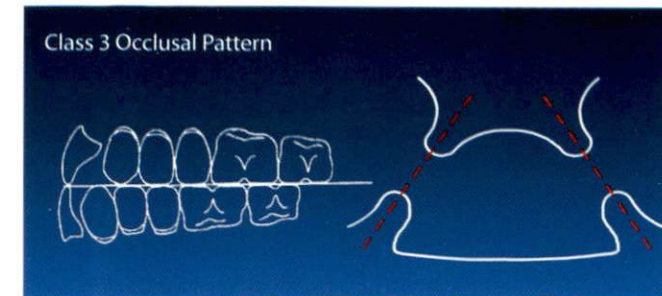
### CLASS 2

The upper arch is peaked and cathedral shaped, and the upper incisors overlap the lower incisors with an "overjet", resulting in over crowded dentition. Can be potentially problematic in due course.



### CLASS 3

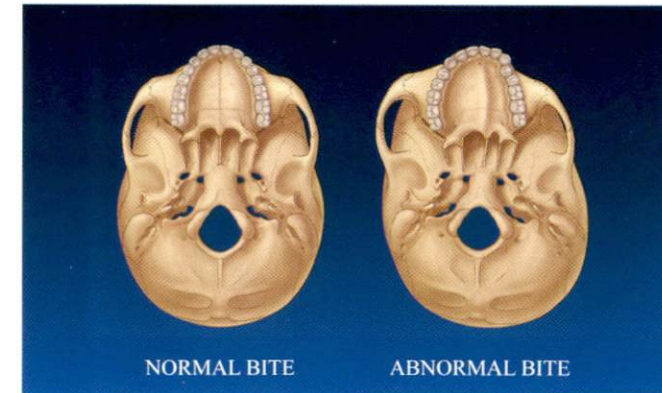
The upper incisor lie inside the lower incisors, and the upper arch is narrow, while the lower arch is larger. This type of occlusion is not usually mechanically problematic, but is aesthetically challenging.



## MALOCCLUSIONS

Changes in a normal occlusion can be brought about by several factors. These include extraction of teeth, wear and tear of dentition, loss of dental support, poor dental restoration, gum disease and irregular bite patterns.

These changes of the "tooth to tooth" relationship can cause interferences which drive the mandible into collision courses within the mouth disturbing the normal contour and balance of the occlusion and cranium;



\* This can force the mandible into a retrusive (posterior) position in the TMJ, the condyle compressing the "retro discal tissue", irritating the nerve bed, congesting the joint, inflaming the ligaments and muscles.

\* This can give rise to vestibular mechanism issues - an itching ear, persistent sore throats, wax build up, loss of balance, tinnitus, nerve damage and finally deafness.

\* This can cause TMJ dysfunction - restricted mobility in the joint space, restricted opening, deviating the mandible, pain on chewing, and finally damage to the joint components.