

# **TEMPORO -MANDIBULAR DYSFUNCTION & ACUPUNCTURE ENERGETICS**

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- I.-*This paper will briefly introduce the philosophy and language of Chinese medicine and Acupuncture energetics.*
- II.-*Then we will discuss the model of meridian energetics as described by Dr. Mark Seem, and explore other models of acupuncture such as the Japanese style of Kikko Matsumoto. Also to be discussed is the concept of Acupuncture imaging discussed by Dr. Seem.*
- III.-*We will then introduce concepts of Craniomandibular and cranio-sacral functional anatomy and the use of applied kinesiology in the analysis and correction of related energetic and somatic dysfunction.*
- IV.-*Finally we will look at the insights gained from an understanding of acupuncture energetics and the application of acupuncture in the treatment of Temporomandibular disorders*

## **I. INTRODUCTION TO CHINESE MEDICINE AND ACUPUNCTURE:**

The language of Chinese medicine is representative and relational as opposed to the language of Western medicine which tends to be more absolute and definitive. In understanding the nature of acupuncture and its ability to exert a positive influence on the energetics and function of the body, and particularly the Temporomandibular system, there are a number of concepts to first be understood.

The first of these is energy itself. Chinese medicine, the medicine of energy, speaks of this energy as Chi. Chi is the energy of life. Chi exists in a myriad of forms. The Chinese have understood this for thousands of years. It wasn't until Albert Einstein gave birth to quantum physics and his formula " $E = mc^2$ ", that the western world began to awaken to this. We now understand that there is a continuum and a sameness between energy and matter.

"The infinite variety of phenomena in the universe is the result of the continuous coming together and dispersion of Qi to form phenomena of various degrees of materialization. This idea of aggregation and dispersion of Qi was discussed by many Chinese philosophers..."<sup>1</sup>

In its conceptualization of the nature of life energy Chinese medicine encompasses a broad understanding of cosmology; both on a macroscopic level and on an energetic level. Qi is the basis of all that is animal, vegetable, and mineral. Heaven and earth are viewed as two extreme states of expansion and condensation of Qi.

Qi can manifest in an infinite number of ways. To reflect this, Chinese philosophy evolved a rich and descriptive language to describe the tendencies and qualities that Qi might embrace.

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<sup>1</sup> Giovanni Maciocia, The Foundations of Chinese Medicine, pg36

The terms Yang and Yin reflect the duality of Qi as seen in nature. This manifests as day and night, light and dark, hot and cold, up and down, etc. Interestingly, again, there are parallels in contemporary western thought introduced by Einstein's "Theory of Relativity".

Every phenomenon in the universe can be considered as moving through cyclical change of highs and lows. The interaction between Yang and Yin provides the motive force that drives the transition. All phenomenon are the manifestation of the interplay that exists between these two forces, and all things contain Yang and Yin elements within.

In the cycle of life, there is the energy provided to us through our conception and birth. This energy the Chinese call "Pre-Heaven Jing" {which in English could be translated as "essence"}. This essence is what determines each individual's constitution. This intra-uterine "Pre-Heaven Jing" helps to define our unique nature as individuals with our strengths, weaknesses, and predispositions. We might think of this primary energy as that represented and manifest by our genetic code and the influences of our pre-natal experience. Our "Pre-Heaven Jing" generates our constitution, in a sense influencing our responsiveness energetically and physiologically.

Following our birth, our Jing is further defined by the energetic qualities incorporated by the extraction of elements and energy from our food and drink by the Stomach and Spleen, as well as from air that we breath via Lung. This post-partum influence is called Post-Heaven Jing.

Our Jing is further acted upon by the energy of the Kidneys. Kidney Essence is derived from the action of the kidneys upon Pre-Heaven Jing and Post-Heaven Jing. This Jing is then stored in the kidneys and circulated though the body particularly in the eight Extraordinary Vessels<sup>2</sup>.

In the West, we speak of circulation systems in the body pertaining to the flow of fluids; primarily blood and lymph. In Chinese medicine, a broader view is taken with the flow of fluids being only a component of the overall flow of energy through the body's tissues. Chinese medicine views the flow of energy as occurring through a network of channels, known as meridians, both on the surface and deep within the body. Access to influence the flow of energy through the body is afforded by the presence of acupuncture points which manifest along meridians on the surface.

Stimulation of points along these meridians will have influence on remote related organs and tissues. "When acupuncture points on the kidney meridian are stimulated, they affect not only the kidney, but also embryo logically related organs such as the ovary, testicle, uterus, fallopian tube, and to some extent the adrenal".<sup>3</sup> This is because, as the information encoded in our DNA is manifesting in response to the evolving energy fields of the embryo, tissues differentiate and at the same time maintain energetic connections to the germ tissues of their origin. Organs and tissues originating in different germ layers and regions of the nascent embryo share connections to their embryologic roots, thus the holographic nature of the body.

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<sup>2</sup> Giovanni Maciocia, The Foundations of Chines Medicine, pg39d

<sup>3</sup> Felix Mann, The Ancient Chinese Art of Healing and How it Works Scientifically  
2<sup>nd</sup> edition , page40

Energy flow through the body follows the meridians and collaterals which extend internally coursing through the Zang-Fu and over the body exteriorly, forming a network that links the tissues and organs of the body into a whole.<sup>4</sup>

The pathways of energy flow defined as the Regular Meridians, are 12 pathways of energy flow that manifest along the superficial tissues of the body; they run from hand to head, from head to the foot, and vice versa. These meridians are known by the names of the organs { Zang Fu} with which they are related such as Lung, Large Intestine, Stomach, Spleen, Heart, Small Intestine, Bladder, Kidneys, Pericardium, Triple Burner [not a singular organ] in the western sense], and Gall Bladder. These Regular meridians have subsidiary branches, called divergent and collateral meridians, that run transversely; supplying areas of the body adjacent to them. The divergent meridians run interiorly and the collateral meridians run superficially.

In addition to these Regular meridians and their subsidiary branches mentioned above there are other contiguous channels through which energy travels through the body. There are twelve musculo-tendinous and twelve cutaneous pathways associated with the Regular meridians running through the musculature and the cutaneous tissues respectively. There are also the Eight Extra { Extraordinary } meridians.

The Eight Extra[ Extraordinary } meridians, differ from the main meridians in that none of them are directly related to the Zang-Fu. They are not exteriorly- interiorly related. These are the Du, Ren, Chong, Dai, Yang Qiao, Yin Qiao, Yang Wei, and Yin Wei meridians. Apart from the Du and Ren, which have their own acu-points, these Extra meridians share their points with the main meridians. These Extra meridians function to strengthen the association among the meridians, they assume the ability to control, join, store, and regulate the qi and blood of each meridian.<sup>5</sup> The Du Mai and Ren Mai run superficially along the central axis of the body. These are also known as Governing and Conception vessel respectively.

The twelve muscle Meridians are “conduits which distribute qi and blood of the twelve major meridians to nourish the muscles, and possess the function of connecting all the bones and joints of the body in maintenance of the normal range of motion”<sup>6</sup> According to “CAM” the muscle regions are not directly related to the Zang-Fu and the flow of qi and blood. These muscle regions are described in more detail below during the discussion of Mark Seem’s Meridian Zone Concepts.

## **II. -INTRODUCTION TO ACUPUNCTURE THEORY**

There are a number of different schools of thought or styles of practice of acupuncture therapy in the USA today.

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<sup>4</sup> Cheng Xinnong Chinese Acupuncture and Moxibustion [CAM] page 53

<sup>5</sup>Ibid page 75

<sup>6</sup>Ibid page 95

## **A. Traditional Chinese Medicine or TCM.**

This is a style of acupuncture that is taught in universities in The Peoples Republic of China today. It is an approach that, I am told, is the result of the communists party's attempt to standardize acupuncture practice in China so as to make it "more scientific". It is then a distillation of many traditions of acupuncture and herbal medicine which had been carried down through familial and mentor-student lineages for thousands of years before.

There are certain elements of TCM's approach that distinguishes it from other styles of acupuncture. One of these is the focus placed on disorders of the Zang-Fu, which can be thought of in terms of organ-functional energetic disturbances. In TCM, distinctions are made about patterns of disharmony that are common for certain organ-energetic zones. For example, "fire" disorders do not occur everywhere but rather in Liver, Gallbladder, Heart, and Stomach functions. Likewise, deficient yang patterns are frequent in the Kidney, Spleen, and Heart functions"<sup>7</sup>. By first determining the pattern of the disorder the practitioner would then be guided to an established protocol to treat that particular pattern.

Diagnosis in TCM includes four methods described by the words;

**Looking, Hearing** {includes smelling}, **Asking, Feeling**

All aspects of the patient may be considered as relevant. A fundamental principle of Chinese diagnosis is that "*a part reflects the whole*"<sup>8</sup>. Therefore the appearance of the tongue or the feel of the pulse would provide the trained practitioner with a wealth of information regarding the patterns of disturbance within the patient. In the words of Su Ma Qian, a historian of the Han dynasty, "Feeling the pulse, observing the colors, listening to the sounds, and observing the body can reveal where the disease is."

Based on his/her interpretation of these "filters" reflecting the energetic state of the patient, a TCM practitioner will arrive at a diagnosis of imbalance within the Zang-Fu or the internal organs. Zang being the yin organs heart, lung, spleen, kidney, liver; and Fu being the yang organs gall bladder, bladder, large intestine, small intestine, stomach, and triple warmer.

The identification of the nature of the patient's imbalance is in accordance with "*the Eight Principles*". These eight Principles are: Interior-Exterior, Full -Empty, Hot-Cold, Yin-Yang. "The purpose of applying the eight principles is not to categorize the disharmony, but to understand its genesis and its nature."<sup>9</sup>

Once diagnosis is made, treatment is applied to restore balance to the yin and the yang bringing the system back into energetic balance. Treatment would generally be applied to combinations of distal and proximal points. These point combinations are chosen based on principles laid down and recorded in an ancient text called the *Nei-Jing*.

The principles from the Nei Jing are as follows;

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<sup>7</sup>Mark Seem, PhD Acupuncture Imaging , page41

<sup>8</sup>Giovanni Maciocia The Foundations of Chinese Medicine, page 143

<sup>9</sup> Giovanni Maciocia The Foundations of Chinese Medicine, page 180

**A general rule is that “Yang will tend to excess and Yin will tend toward deficiency”.**

**In disorders of yang of yang use ahshi points, = myofascial conditions - tx trigger points**

**In disorders of yin of yang use jing-river points, = deep musculo-skeletal conditions - tx jing river points**

**In disorders of yang of yin use he-sea points, = yang organs - tx he-sea points**

**In disorders of yin of yin use rong-spring + shu-stream points = yin organs -tx rong-spring / shu stream points**

Distal points would be used to open the flow of energy in the meridians. These distal points would be found along the extremities from the elbows and knees moving distally.

Points might be selected for their ability to either tonify or disperse energy in a particular meridian. The energy system of the body is considered to have superficial, intermediary, and deep components that are called *Wei*, *Ying*, and *Jing* respectively. It is considered that to provide a fully balanced treatment, one would treat two of the three layers at a time.

It is generally believed that treatment by the surface stimulation provided by acupuncture alone is insufficient to truly treat internal disorders. Therefore, Chinese internal medicine relies on the medicinal properties of herbs.

### **B. Meridian or Zone Concepts**

When viewing the meridian zones described in Chinese medicine one sees that these zones are comprised of chains of muscles and associated connective tissues running from head to toe on the ventral, lateral, and dorsal sides of the body. In the system of “American acupuncture” as conceived and articulated by Mark Seem PhD., recognition is given to the fact that when acupuncture needles are being placed, they are inserted into these myofascial connective tissues.

When the body is viewed from an osteopathic perspective we see that all of the body’s cellular and organ tissue is supported and held together by these connective tissues as they course through the body from the skin to the deepest tissues. The tissue of which these pathways are composed includes all of the body’s tissues and fluids. These chains of muscles, fascia, and skeletal components form the body’s structural-kinetic pathways. These tissues are continuous from head to toe, from the skin to the core of our nervous system, from the most macroscopic perspective, to the most microscopic.

Oschman, as quoted in Matsumoto’s book Hara Diagnosis: Reflections on the Sea<sup>10</sup> describes the role of the connective tissue systems well. He states:

“The connective tissue and fascia form a mechanical continuum, extending throughout the animal body, even into the innermost parts of each cell. All the great systems of the body - the circulation, the nervous system, the musculo -skeletal system, the digestive tract, the various organs - are ensheathed in connective tissue. This matrix determines the overall shape of the organism as well as the detailed architecture of its parts. All movements of the body as a whole, or of its smallest parts, are created by tensions carried through the connective tissue fabric. Each tension, each compression, each movement causes the crystalline lattices of the

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<sup>10</sup> K Matsumoto & S. Birch Hara Diagnosis: Reflections on the Sea, page 162

connective tissues to generate bioelectric signals that are precisely characteristic of those tensions, compressions, and movements. The fabric is a semiconducting communication network that can convey the bioelectric signals between every part of the body and every other part. This communication network within the fascia is none other than the meridian system of traditional Oriental medicine, with its countless extensions into every part of the body. As these signals flow through the tissues, their biomagnetic counterparts extend the stories they tell into the space around the body. The mechanical, bioelectric, and biomagnetic signals traveling through the connective tissue network, and through the space around the body, tell the various cells how to form and reform the tissue architecture in response to the tensions, compressions, and movements we make.”

Acupuncture points along the surface of the body’s tissue permit us access into the system of the body’s kinetic energy chain. In dysfunctional states of the body, these kinetic pathways present themselves as areas of tightness and tenderness.

In the meridian approach to acupuncture treatment, the patient’s complaints are used as a guide in the palpatory examination of the patient’s myofascial connective tissues. The clinician seeks to locate areas of tightness and tension that are signs of restricted energy flow. These areas may be experienced as tender or painful by the patient { in the Japanese style of acupuncture these points are called *ashi* or *kori* }. When painful, they are described as trigger points in Western terminology.

In the meridian approach, these areas of energy blockage manifesting as tight and tender points are sites at which treatment is applied, usually with needles. In conjunction with this local treatment to the areas that are painful, treatment is applied to distal points in the hands and feet to facilitate the relaxation of the zone being treated. Also when appropriate, support would be provided for the associated yin and extraordinary meridians as discussed below. As stated earlier, according to the *Nei Jing*, “yang tends toward excess and yin towards deficiency.”

Mark Seem discusses the effects that occur in striated muscle which is overstimulated due to stress or excessive activity. The result is increased muscle tone, spasm, and shortening; leading eventually to pain and tenderness. Shortened muscles, as Travell emphasized, create a constant pull on the myofascial fabric of the body, resulting in local and distant chronic pain syndromes.<sup>11</sup> As Seem goes on to discuss; where there is restriction there is pain, and a lack of free flow of energy. Where there is free flow, there is no pain and no constriction. The goal of treatment then is to free areas of restriction, releasing muscles to resume their normal physiologic length.

Eliminating tight tender areas restores normal physiology and flow of energy to the affected myofascial tissues, thus eliminating pain and promoting balance of the body. This is particularly critical in the treatment of Temporomandibular disorders as we shall discuss later on.

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<sup>11</sup> Seem, Mark A NEW AMERICAN ACUPUNCTURE: Acupuncture Osteopathy-  
The Myofascial Release of The Bodymind’s Holding Patterns Page 97

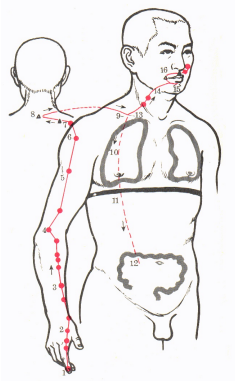
## THE THREE MERIDIAN ZONES

**The Ventral Zone:** The ventral zone is comprised of the cutaneous zone, the tendino- muscular, divergent, connecting, and regular meridians of the *Yang Ming* [sunlight yang], which includes the hand Yang Ming [Large Intestine] and the foot Yang Ming [Stomach].

Mark Seem describes this zone as offering a muscular protective zone to the yin meridians of the foot [liver, spleen, and kidney] <sup>12</sup>. “This zone includes major muscles of the jaw and face, as well as, the front and side of the neck. These muscles include the frontalis, zygomaticus, the orbicularis oculi, & oris, the medial and lateral pterygoid, and the masseter. In the neck, it involves the sternocleidomastoid, the platysma, the scalene muscles, as well as, the supra and infrahyoid muscles. As this zone extends down it is branched, with one branch arising from the dorsum of the arm and hand, originating in the index finger. Another branch flows down through the shoulder girdle and chest, flowing through the deltoid, supraspinatus the pectoralis, sternalis, and rectus abdominus. It continues down the ventral surface of the leg to the second and third toes.”

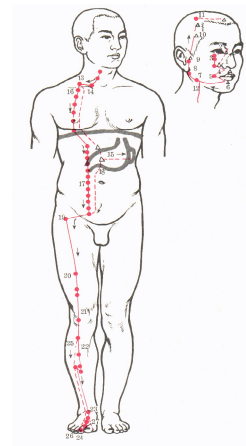
### LARGE INTESTINE MERIDIAN:

Hand Yang Ming



### STOMACH MERIDIAN:

Foot Yang Ming



Treatment strategies in this zone pertinent to the treatment of temporomandibular disorders would involve opening strategies stimulating points in the hands and feet in addition to treatment of local tender trigger points. Seem describes opening strategies such as *Sp-4* and *Per-6*, or *St-36* and *Li-4* as well as release of tight and tender points in the medial and lateral pterygoids and the masseter with *St. 5,6,7*. Headaches may be treated by treatment of trigger points in the sternocleidomastoid with *St 43,42,40, 39,37* wherever reactive; *Liv3* and *Li4* for constrained qi in general, treatment of the trapezius with local *St 8, TW16, GB20, 21*, and *St 12,13* for freeing up the platysma and attachments of the sternocleidomastoid. <sup>13</sup>.

Kikko Matsumoto in her teachings at Tri-State over the years has taught various strategies for releasing the sternocleidomastoid including *Ki6 and 7, St9, Li18, Si16*, as well as *St2, Gb1, Bl2*. <sup>14</sup>

**The Dorsal Zone:** The dorsal zone is comprised of the cutaneous zone, the tendino- muscular,

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<sup>12</sup> Ibid Page 119

<sup>13</sup> Ibid

<sup>14</sup> Ibid

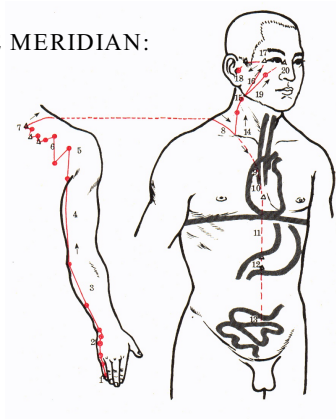
divergent, connecting, and regular meridians of the *Tai Yang* [maximum yang], which includes the hand Tai Yang [Small Intestine] and foot Tai Yang [Bladder].

As described by Seem, this zone includes the region of the upper sinuses, forehead, top of the head, and the back of the body from the occipital region and nape of the neck down the spine and muscles running para-spinally, through the buttocks and the back of the thighs and calves to the outer edges of the foot and toes. The arm branch flows up the outer edge of the arm starting at the little finger and crossing through the region of the scapula and the scalene muscles of the neck as it passes through the cheek and extends in front of the ear bilaterally.

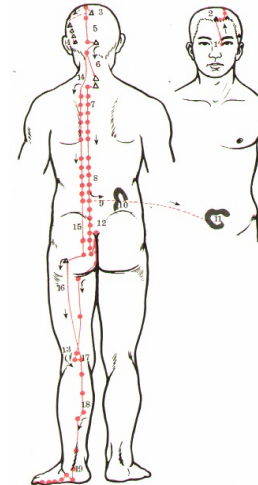
The extraordinary vessels traversing this zone are the *du mai*, which runs from the perineum, up the spine, over the top of the head, and down the front of the face to the middle of the philtrum under the nose, and the *yang qiao mai*.

This zone includes major muscles of the back of the head, neck, and shoulder girdle, such as the orbicularis oculi, occipito-frontalis, posterior digastric, middle and lower trapezius, splenius capitis and cervicis, the multifidi of the neck, the semispinalis capitis and cervicis, the suboccipitalis, the levator scapulae, supraspinatus, infraspinatus, teres major and minor, and the rhomboids.

SMALL INTESTINE MERIDIAN:  
Hand Tai Yang



BLADDER MERIDIAN:  
Foot Tai Yang



Treatment strategies in this zone pertinent to the treatment of temporomandibular disorders would involve opening strategies stimulating points in the hands and feet in addition to treatment of local tender trigger points.

A very effective strategy for opening this zone is the use of *Si-3* and *Bl-62*. These points open the two yang extraordinary vessels which traverse this zone, *du mai* and *yang qiao mai* respectively.<sup>15</sup>

It is common within the population of patients seen with TM disorders, that there is involvement along the back. This is seen particularly in patients with deficiencies of support for the vertical dimension of occlusion, a condition often seen with forward head posture and shortening of mastication closure muscles such as masseter, temporalis, and medial pterygoid, as well as the posterior cervical muscles that are part of this zone. Use of points such as *Bl-10* and *Bl-40*, which are

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<sup>15</sup>Ibid page 93



described by Seem as effective for release of spasm and stiffness of erector spinae para-spinal muscles from the occiput to the sacrum would be particularly useful.<sup>16</sup>

Another useful approach to release the parapsinal muscle network is the needling of *Bl-2* “anywhere from its location medial to the eyebrow to the midpoint of the eyebrow”, particularly useful when the para-spinal dysfunction is associated with frontal headache. In such cases, it should be combined with *Bl- 58 or 59*.

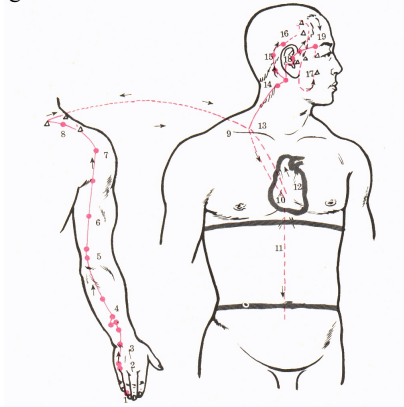
**The Lateral Zone:** The lateral zone is comprised of the cutaneous zone, the tendino- muscular, divergent, connecting, and regular meridians of the *Shao Yang* [lesser yang] which includes the hand Shao Yang [Tripe Heater] and foot Shao Yang [Gallbladder] meridians.

This zone includes the temporal region and side of the head, the upper trapezius, the upper back and latissimus dorsi, the side of the hip and the iliotibial tract running along the outside of the upper and lower leg along the dorsum of the foot to the fourth toe.

In addition to the trapezius and latissimus dorsi, other muscles of the head, neck, and shoulder girdle in this zone are the occipito-frontalis, temporalis, suboccipital, sternocleidomastoid, scalenus medius, the supraspinatus, posterior deltoid , and triceps brachii.

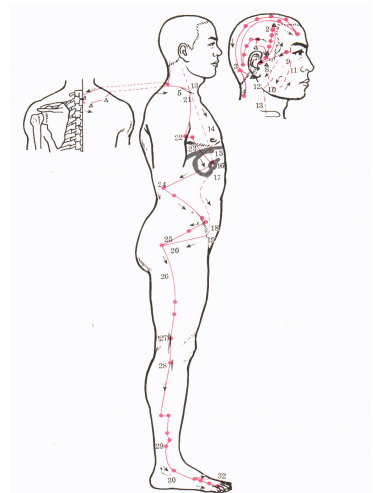
TRIPLE WARMER MERIDIAN:

Hand Shao Yang



GALL BLADDER MERIDIAN:

Foot Shao Yang



The extraordinary vessels traversing this zone are the *Dai Mai* which encircles the waist and the *yang wei mai* which traverses the whole lateral zone.

Treatment strategies in this zone pertinent to the treatment of temporomandibular disorders would involve opening strategies stimulating points in the hands and feet in addition to treatment of local tender trigger points.

*Dai Mai* and the *Yang Wei Mai* serve as the embryologic template for the development of the lateral zone. Their reunion points *GB-41* and *TW-5* are needled together to open this area and begin its release. This combination is particularly useful for treatment of whiplash syndrome and helps release contralateral, upper-lower torsional myofascial dysfunctions.

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<sup>16</sup> Ibid

*Tw-16* is the union point of the triple heater and pericardium meridians. Needling of this point is very effective for stiffness and pain in the upper neck involving constriction of the upper sternocleidomastoid and scalenus muscles when combined with *Tw1* and *Per1* as well as tight and tender points.

An effective combination of points for the local treatment of temporal headache, migraine, and temporal symptoms associated with TMD are the use of *Gb1* and *Tw23* in combination with *Gb3* and *Tw22*.<sup>17</sup>

Seem recommends the support of the associated yin meridians [jue yin] the pericardium and liver, utilizing specific distal protocols, *Liv2* and *3*.

**Treatment protocols for a Meridian based approach to Acupuncture are summarized in the following table;**

from Mark Seem II/5/95

chart by David L. Lerner, DDS

Tx 2 of three layers	Ventral Zone YANG-MING [ St Li ] TAI-YIN [ Sp Lu ]	Lateral Zone SHAO-YANG [GB-Tw] JUE-YIN [ Lv- Pc ]	Dorsal Zone TAI-YANG [ Bl - Si ] SHAO-YIN [ K - Ht ]
Wei	Tx local TTP's Tx reactive distal points St 36,37,39, 40 Li 4,10,11,12	Tx local TTP's Tx reactive distal points GB 40,39,34,31 Tw 3,5 , Tw 10 {from Li 10 move laterally to Tw meridian over extensor of ring finger}	Tx local TTP's Tx reactive distal points Bl 57,58,59 Si 8,5, 7
Ying	Tx Yin pair meridian of zone Tx Tai-Yin: Lu 9+10 Sp2+3 {2nd+3rd pts of meridians spring/ stream} Tx active Mu/ Shu pts of Lu& Sp	Tx Yin pair meridian of zone: Tx Jue-Yin : Lv 2+3 Pc 7+8 {2nd+3rd pts of meridians spring/ stream} Tx active Mu/ Shu pts of Lv & Pc	Tx Yin pair meridian of zone; Tx Shao-Yin: Ht 7+8 K 2+3 {2nd+3rd pts of meridians spring/ stream} Tx active Mu/ Shu pts of Ht & K
Jing tx x-side	Tx pts of Extraordinary vessels: Ren Mo {Conception Vessel } If pattern is: anxiety, respiratory distress, adrenal stress {upper/lower heater} Lu 7/ Ki 6 Chong Mo (Thrusting Vessel) - constriction of abdomen/chest, insomnia {middle / lower heater} Sp 4/ Pc 6	Tx pts of Extraordinary vessels: Dai Mo { Belt Channel} GB 41 Yang Wei Mo Tw 5  Kikko - tx's whiplash with GB 41/Tw 5 then locates local TTPs	Tx pts of Extraordinary vessels: Du Mo {Governing Vessel} Si3 Yang Qiao Mo B62

<sup>17</sup> Ibid page113

In Acupuncture Imaging-Perceiving the Energy Pathways of the Body, Mark Seem articulates a model of acupuncture that seeks to restore to the body its energetic blueprint. In doing so, he contributes to a body of literature where much has been explored and written regarding the potential and benefits of working to bring the body-mind to its highest level of integration and function; to re-create the body mind as a true representation of its genetic potential- free of restrictions, compensations, and imbalances imposed by mal-adaptive responses to social, psychological, and physical stressors.

In the above book, Dr. Seem presents a model of acupuncture energetic therapy intended to facilitate the individual in their desire/quest to create a more comfortable and fulfilling sense of being in their bodies. By identification and release of chronic tension patterns, via acupuncture, the client's body is freed of patterns resulting from trauma and habits of relating to the world.

This view of acupuncture resonates for me as it mirrors my own view of dentistry and my evolving approach to the treatment of Temporomandibular Disorders {TMD}. This is a broad class of disorders that may result from developmental, iatrogenic, traumatic, and psychosomatic etiologies. Given the nature of our body-mind, TMD is frequently not a localized, isolated, physical phenomenon, though it may in some cases be simply that. Often patients presenting with TMD complaints present with a myriad of associated complaints reflecting an overall state of somato-visceral- psychic dysfunction.

If we consider contributions to the literature such as Fritz Perls' Ego, Hunger, and Aggression, we can readily appreciate the role of the mouth in psychic development and the potential for disturbances in early emotional development to be mirrored by physical disturbances in orofacial development.

Further understanding is offered by Wilhem Reich in his perceptions of the potential for the development of "armoring " within the myofascial systems of the body in response to perceived psychic traumas. Reich described how the restrictive character armoring that an individual generated in reaction to their environment could lead to the development of life-long patterns influencing the personality of the individual. He conceived a method of freeing the individual of the restrictive armoring that they maintained through a rigorous process of physically challenging their defenses to break them down. Ultimately leading the individual to the experience of surviving without these defenses and experiencing their bodies in a relaxed state. Reich viewed the mouth and throat as one of the primary areas of the body where energy would be blocked.

When energy is blocked in its flow through the stomato-gnathic system the consequences can be profound, changing the course of a life. Disruptions to growth and development of the stomato-gnathic system, due to the psycho- somatic reasons described in the above paragraphs, has the potential for far reaching influences functionally and energetically throughout the body-mind.

As we explore the application of a meridian approach to acupuncture in the treatment of temporomandibular disorders, it will be helpful to first explore the functional anatomy of the cranio-mandibular system.

### III. INTRODUCTION TO THE FUNCTIONAL ANATOMY OF THE TM SYSTEM

As we evolve in our thinking and appreciation of the wholeness of our being, we begin to understand that what we view as the "stomatognathic system" is not limited to the teeth, gums, jaw, and associated TM joints and masticatory muscles. It is time to take a broader view.

It is important to keep in mind that when we discuss a particular aspect of the body or its function, we are inclined to speak of it as an entity unto itself, as a convenience of cognition and communication. In reality the body is an integrated whole, there are no separate systems.

As discussed previously the complex anatomy of the body is such that there is an intimate interdependence of all components. The myofascial-skeletal tissues are bound together by a network of connective tissue which is continuous from head to toe and from our skin to the core of the nervous system. This connective tissue supports and connects every cell within the body.

Structure and function cannot be separated. Structural imbalance or disharmony within the cranio-mandibular system can have profound influences through the body as a whole. These imbalances can range from simple situations where a single tooth { or filling, crown, etc. } may be hitting with more {or less} pressure than appropriate, and more complex situations where there is an overall disharmony of the bite and jaw relationship to the body. Either situation may have profound influences within the musculo-skeletal system, the central nervous system, as well as through the body's electromagnetic energy circuits.



In this diagram we can see the reciprocal actions of the head, neck, and jaw muscles. Postural balancing is the result of a finely tuned proprioceptive feedback mechanism controlling the balancing of muscular forces in 3 planes. The net effect is that alterations of the bite can influence the muscular chain of the body and vice versa.

Energetic /functional imbalance throughout the musculo-kinetic chain comprising the musculo-tendinous acupuncture meridians will impact on postural alignment of body structures and in turn the temporo-mandiblar system.

The teeth are like door stops determining the position that the jaw assumes in relation to the skull on closure. When the teeth and supporting jaw structures are correctly developed and properly aligned an erect head posture will be encouraged.



As a student at Temple University School of Dentistry, I was taught that the function of the sutures in the skull was to permit growth and expansion of the cranial vault and at some point after growth and development had been completed the sutures would fuse together.

What I didn't know at the time was that these conclusions about the purpose of cranial sutures were based on the study of cadaver material and had little basis in fact. Though our skull may seem rigid, it is pliable and made of bones that move in relation to one another. This has been known for many years within the chiropractic and osteopathic professions, and was initially brought to light by the work of Sutherland in the early part of this century.



As we bite, the forces generated are transmitted along the roots of the teeth and pass into the bones of the skull. When the jaw is aligned and the bite balanced, the forces directed into the skull are dissipated in a manner that supports healthy function of the cranial mechanism. Problems with the bite may cause distortion in the shape and movement of these bones.

This affects what is known as the cranial-sacral system, an essential part of body function, which involves the meningeal {dural} membranes as a functional link between the physiologic micro-motion of the bones of the cranium and pelvis.

As shown in the diagrams to the right the dural tube is viewed as the "core link" connecting the occiput and the sacrum. With balance, the occiput and sacrum move normally.



An occipital distortion due to a bite problem or some other influence will lead to a sacral distortion, and vice versa.



As stated above the mal-distribution of forces of the bite due to missing teeth, improper replacement of teeth, or mal- development may impact throughout the myofascial and musculo-tendinous meridian systems. An example of this was seen in a patient of mine, Lynne G..

Lynne presented for dental treatment, requiring a crown to be placed on her upper right molar to restore it . The tooth had previously been treated with root canal therapy, at which time it had been shortened to take biting pressure off of it.

About a month after we had placed a provisional acrylic crown, Lynne called me to report that she had an amazing experience. The heel of her right foot had been giving her a burning intermittent pain for two years. As soon as we placed this temporary crown on this tooth the pain disappeared. In fact it stayed away for four

weeks only to return that morning after the temporary came loose from her tooth.

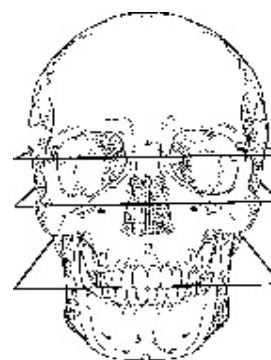
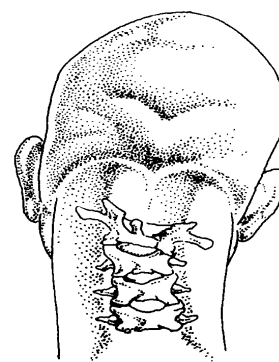
Using applied kinesiology<sup>18</sup> I evaluated the causal chain between her foot pain and her tooth. It seems that the absence of support for the bite on this tooth was permitting a slight torquing of the mandible when she closed her mouth. This in turn was interfering with the micro motion of the bilateral maxillary bones and at the same time inducing a torsion of the sphenobasilar junction. It was fascinating to see the meridian energetic influences generated by this dental -cranial stress. Both the Bladder meridian and Triple Warmer reacted kinesiologically throughout their entire course, as if the energy transmitted along them were blocked.

As soon as I replaced the temporary crown and re- evaluated the cranial and meridian indicators they where completely non- reactive. The pain she had suffered from in the heel of her foot in the region of *Bl-61* disappeared.

An imbalance of the bite will always be associated with altered cervical neuromuscular function and postural mechanics. This results in a tendency for neck problems {cervical subluxation /fixation}. The reverse is also true; a cervical fixation arising as a result of stress or injury may alter the bite, and can even lead to dental symptoms [ie., a sore tooth]. In fact, the body is a closed kinematic system with a change anywhere affecting the whole system.

I have seen a few cases of people developing a toothache after injuring a toe; they had altered their gait and in turn their posture to avoid putting weight on the sore toe. Compensation within the head and neck, led to changes in their jaw muscles, temporarily altering their bite. This led to excess pressure on one or more teeth causing soreness of the ligaments supporting the tooth in its socket.

To maintain symmetry of the body the plane of the biting surfaces of the teeth should be parallel to the visual plane of the eyes. This ensures that sensory-postural reflexes such as the visual righting reflex, the vestibulo-cochlear reflex, and the cervical postural reflexes are in harmony.



Yoshiko Manaka<sup>19</sup> considers relative symmetry of the body extremely important in determining the

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<sup>18</sup> Walther, D Applied Kinesiology ; for description of method see Addendum I at end of paper

<sup>19</sup> Matsumoto and Birch page 187

relative health of an individual. Manaka views these symmetries as important in the function of the extraordinary vessels. He also recognizes them as important structurally and energetically. With any distortion of the body, either physical or energetic in origin, he feels that the body will respond in a manner that will symmetrically reflect the disorder. This is seen quite clearly as we evaluate the stomatognathic system for symmetry and alignment of its structure and function.

A balanced bite of the teeth is essential to support balance within the cranial-sacral system and through-out the neuromuscular and myofascial systems of the body. Any imbalance of the bite, no matter its origin will be reflected functionally, structurally, and energetically elsewhere in the body.

When we look at problems that are developmental in origin we can see the patterns of distortion in the myofascial systems reflected in the development of the bite of the teeth. These patterns of distortion viewed osteopathically may be considered as conditions of hyper-flexion or hyper-extension, torsion, and side-bending. These terms are used to describe the condition of the cranial base involving the sphenoid bone and the occiput. Because of reciprocal interactions between the skull and pelvis as described above, distortions evidenced in the skull will be reflected in distortions of the pelvic girdle. The tensions associated in the intervening myofascial tissues will cause areas of constriction or blocked energy flow within the myofascial tissues and musculo-tendinous meridians.

These developmental problems, manifest on a physical level, may originate in utero due to constrictions of the mother's pelvis, biochemical stressors acting through visceros-somatic reflexes on the embryo or newborn, traumas associated with birth, early childhood traumas and maladaptive responses to environmental, social, and psychic stressors.

On an energetic level these physical distortions will impact upon the flow and expression of the individuals *qi*. I believe these patterns of distortion will manifest as specific weaknesses or predispositions within the meridians affected.

For example, in bodies that develop with a hyper-flexed strain pattern, we will see expression of this on a physical level with the development of a tendency to overbite and the retrusion of the mandible in relation to the cranial base. As the individual develops in early childhood there will be tendency to have a forward head posture. There will be shortening of jaw closing muscles, hyper-contraction of posterior cervical muscles and excess lordosis of the lumbar spine with shortening of the deep muscles of the lower back. In other words, given that the mandible is an ossified structure in the chain of muscles at the front of the head and neck, abnormalities in the articulation of the mandible with the cranium alter the proprioceptive feedback in to the CNS, resulting in compensatory alterations in tonus of the posterior cervical musculature and throughout the musculo-skeletal system..

As we continue our evaluation of the patient with the hyper-flexed strain pattern, if we look at the feet there will be a tendency towards pronation with loss of the arch. Such individuals will tend to have excessive tension and loss of efficiency in the major postural muscles running from head to toe. In these individuals there will be a tendency for Tai Yang to be tight and tense. Using means

such as palpation and muscle reflex testing {Applied Kinesiology} it is observed that these individuals tend to have a diminished flow of energy in their yin meridians within the medial aspect of the feet and legs, and excessive activity in their yang zones, particularly Tai Yang.

It is interesting to note that a useful clinical indicator to be evaluated in the process of dental somatic integration is the kinesiologic assessment of the occipitalis as well as the para-spinal muscles such as semi-spinalis. Therapy localization with a hand on the muscles along the lumbar spine, while a strong indicator muscle such as the deltoid is tested will often reveal a disturbance in this area. This will be indicated as a weakening of the previously strong indicator muscle as well as a contraction response in the para-spinal muscles felt under the hand of the clinician. When the patient's mandible is guided and supported in a correct orthopedic relation to the rest of the body this response disappears. Furthermore if one was to evaluate the strength of energy in the *wei* level overlying the major chakras [ readily done with kinesiology] one will find an overall a strengthening of this field.

Interesting corollaries are seen when looking at the side-bending lesions of the cranial base and the influence upon the Lateral Zone or Shao Yang. In side bending lesions the cranial base is shortened on one side of the head and lengthened on the other as the sphenoid and occiput rotate laterally at their junction. In the presence of the side bend lesion the mandible is usually shifted from the midline toward the side bend lesion. In such situations the myofascia on the side bend side of the head tends to be contracted, the fascia on the contra-lateral side of the head will be stretched. Evaluation of the meridian energetics in such cases tend to show an effect upon the Triple Warmer myofascial pathway on the stretched side and the Gall Bladder myofascial pathway on the contracted side.

Other patterns of distortion within the cranial-mandibular mechanism will cause characteristic strain patterns throughout the myofascial connective tissue systems manifesting within the acupuncture meridians as disruptions of balanced energy flow.

#### IV. APPLICATION OF ACUPUNCTURE ENERGETICS IN THE TREATMENT OF TEMPOROMANDIBULAR DISORDERS

In the treatment of Temporomandibular disorders, there are a numerous clinical challenges presented that are more readily resolved through the application of acupuncture energetics. Both by the use of acupuncture itself and by applying knowledge of acupuncture energetics in somatic integrative therapy

First, acupuncture is proven as an effective means for relief of pain when applied as taught in lectures and clinical training at Tri-State Institute. Furthermore, knowledge of acupuncture energetics has led me to a deeper understanding of the holographic nature of the human body with inter-relatedness of varied body systems, both functionally and energetically. For example understanding the pathway of the Gall Bladder meridian permits an understanding between the influence of the function of the digestion of the patient and the presentation of symptoms of pain in the head and neck. I have observed numerous cases over the years where the patient's responsiveness to my



therapy was mitigated by the presence of digestive distress, and resulting influence along the Gall Bladder meridian.

From the perspective offered by Kikko Matsumoto, I 've come to understand the commonality of weakness within Kidney Meridian as a contributory factor in the onset and perpetuation of symptoms in people suffering with Temporomandibular complaints. A deficiency of kidney Yang { which relates to the western perception of Adrenal function} will manifest as fatigue, a deficiency of energy supporting the body from the ground up. This will present often in the patient who has temporomandibular symptoms in conjunction with weakness in any of the following; the feet, ankles, knees, pelvis, low back etc.

This is a bottom- up disorder, resulting from an inability of the body to support it's structure from the ground up, and a loss of the ability to maintain integrity of the postural mechanics of the musculo-skeletal system. In my experience these disorders often require a multifaceted approach with release of the constricted myofascia, nutri-medical support of the Zang-Fu, and structural integration via chiropractic, osteopathic, physio-medicine and dental treatment as indicated.

## **CASE REPORTS**

### **Case report #1 :T Z**

History: In 1991 while serving in the military, TZ fell out the back of a taxiing airplane as it was taking off. His injuries included; herniation of C-1&2, fractured jaw on left, fractured sternum, dislocated left shoulder, dislocated left hip, strained knee and broke 2 bones in ankle. Subsequently rehabilitated principally with osteopathic treatment; never fully recovered. In December of 1997 in MVA and aggravated pre-existing soft tissue injuries.

Chief Complaints: Initially presented May of 1998 suffering from daily headache over the left frontal bone, left arm pain and paresthesia of the left hand etc.

Treatment Protocol:

1<sup>st</sup> visit: A mandibular orthopedic repositioning appliance [MORA] was inserted to restore optimal neuromuscular support and symmetry to the cranio-mandibular articulation,

2<sup>nd</sup> visit: Following insertion and balancing of the jaw his headache was improved - His arm complaints persisted. Points to be treated were determined via palpation and testing for areas of blocked chi with Applied Kinesiology.

Treatment with needling at Lft Si-3 & Rt Bl-62 opened *Tai Yang*, a restriction in *Dai Mai* was relieved by needling bilaterally at *Gb-26*, Also treated were *H-7*, an opening point for *Shao Yin*, and *Lft Gb-20*. Kinesiologic assessment of the *Wei* energy level indicated an opening of the large intestine myofascial pathway

3<sup>rd</sup> visit: At this point the support provided to the craniomandibular articulation and our acupuncture treatment had in combination provided significant

improvement for TZ. His left side was much improved with elimination of his headache and significant improvement in the paresthesia.

Patient had been told he had gall bladder disturbance by his physician. Evaluation of the *Gall Bladder* meridian on the right side with kinesiology revealed a blockage of energy flow as did evaluation of the Anterior Deltoid muscle on the right. Weakness was evident in the *Wei* level of the *Small Intestine* meridian on the left, as well as specifically at *SI- 1&2*-Cranial Osteopathic evaluation revealed a restriction in movement of the left zygoma. Osteopathic correction of the left zygoma cleared weakness in the left *SI-1&2* and expanded energy throughout *SI* meridian on the left, as well as clearing blockage of energy in right *GB* meridian and Anterior Deltoid muscle.

**Discussion:** *This case provided some interesting examples of the benefit of integrative therapy involving a structural, myofascial and energetic approach in the treatment of chronic pain and dysfunction involving the head, neck and shoulder girdle. This patient was relieved of symptoms that had persisted for years. This correction of an orthopedic misalignment of his jaw with an orthotic on the first visit provided support that was lacking to the masticatory and cervical muscles- this provided a measure of opening of the myofascial -energetic pathways in the head and neck.*

*On the second visit, the acupuncture release of constricted myofascial areas in the base of the skull, the arm and the waist further opened the physical/ energetic pathways of the patient's body.*

*On the third visit the focus of the treatment which was osteopathic, further corrected and balanced the myofascial pathways with the release of the Zygoma on the left side. This restored natural motion to the cranium, releasing the Small Intestine Meridian which terminates at the zygomatic-frontal suture, after coursing over the temporal- zygomatic suture at *SI-18* and the zygomatic-maxillary suture at *SI-17*. With the release of the zygoma, and the concomitant restrictions imposed upon the Left temporal-sphenoidal articulation, the Right sphenoidal- temporal articulation was also improved; thus opening the right Gall Bladder meridian as it coursed anterior-posteriorly along the superior aspect of the temporal-parietal-sphenoidal regions on the side of the head, and subsequently across the Anterior Deltoid muscle as it passes over the anterior aspect of the shoulder.*

## Case report #2

Sometimes in clinical dental practice I encounter situations that I could only understand as a result of my acupuncture training. An example of this occurred when I was presented with a patient complaining of intermittent pain and sensitivity to heat, cold , and sweets on her left side of her mouth. Dental examination revealed no pathology. The left upper and lower second molars responded kinesiologically as if in traumatic occlusion [this means that the periodontal ligaments of the teeth were being overloaded with too much biting pressure]. This puzzled me as there had been no dental treatment done here that would have changed her bite. She had just begun an exercise program to strengthen and align her body. Shifts in alignment of her body shifted the

alignment of her jaw and her bite. I first adjusted the lower second molar and eliminated signs of too much pressure on the tooth.

As we worked out the imbalance, I recognized involvement of the right side of her body with weakness of the yang meridians *Small Intestine / Gall Bladder* - descending from hand to head, head to foot. Here was a pattern of myofascial stress overlapping the *Tai-Yang* and *Shao-Yang* zones. This reminded me of a functional relationship described by Kikko Matsumoto wherein tight and tender points of the *Small Intestine* and *Gall Bladder* on one side of the body would be associated with trigger points/dysfunction of the contra lateral Sternocleidomastoid muscle. Evaluation of the strength of left sternocleidomastoid revealed that it was weak. Stimulation of tight and tender points on the right side *SI* and *GB* cleared signs of stress in these meridians, as well as the weakness in the left Sternocleidomastoid.

Again left upper and lower second molars responded kinesiotactically as in traumatic occlusion. I again equilibrated until there was no longer signs of traumatic occlusion kinesiotactically. It then became apparent [ intuitively] that there was problem along the medial anterior surface of her right leg [ascending yin meridian] and her left shoulder. Applied kinesiology revealed therapy localization [a reactive point] in a region overlying her iliocecal valve - midway between the right ASIS and umbilicus. This point is also a neuro-lymphatic reflex point for the Psoas muscle. Stimulation of this point resolved the weakness associated with the left shoulder and right leg - a torsion pattern, and again led to both left upper and lower second molars responding kinesiotactically as in traumatic occlusion. Again the lower second molar was adjusted until it tested no longer reactive.

There was one last layer of muscle reactivity found along the medial side of the right scapula at the location of *Bl-11*. Releasing this point with acupressure again resulted in left upper and lower second molars responding kinesiotactically as in traumatic occlusion. One last equilibration cleared out all remaining evidence of compensations in the body.

**Discussion:** *In this particular case it was interesting to note the presentation of a dental symptom as a consequence of a volitional improvement in posture. Also particularly noteworthy was the interplay myofascially, along meridian pathways of reflexive contraction of muscles associated with the emerging hyper-occlusion of the teeth. The position of these teeth was previously determined by a maladaptive postural response of the body to an unknown stress.*

*From an neuromuscular and osteopathic perspective we can see that a weakness of the left Sternocleidomastoid would enable its antagonist muscles on the contralateral side of the head, both masticatory and cervical, to become hypertonic and constricted, thus affecting the descending yang meridians in this case the Small Intestine and Gall Bladder meridians. These meridians being affected, as opposed to other pathways in the region because of the unique vector of non-physiologic forces acting in this case. The weakness of the left Sternocleidomastoid being related to the hyper-occlusion of the teeth as the posture of the head and neck was volitionally improved. The weakness along the ascending Yin pathway of the right leg was related to the weakness of the right Psoas- this often can result in a torsional pattern of the pelvis and trunk of the body affecting the contra-lateral shoulder*

*girdle, also relating to the weakness in the left Sternocleidomastoid.*

### Case report #3- GK

This case involved sequelae resulting from the extraction of the patient's wisdom teeth. A few weeks after the oral surgeon had dismissed her from follow-up care she was still experiencing some tenderness in the lower left jaw and an aggravation of a chronic headache condition. Oral examination revealed tenderness still present over the site of extraction of the lower left wisdom tooth. Examination utilizing applied kinesiology revealed a blockage of lymphatic flow from the jaw as well as weakness at left *Li-11* [Kikko's immune point] and left *Li-4* as well as bilaterally at *Sp-9*. The patient was treated with magnets placed at *Sp-9* bilaterally and left *Li-11*. She was also treated homeopathically with *Osteoheel*, a complex designed to promote healing of bone trauma.

Upon her next visit two weeks later she reported that her pain had lessened with the magnets, but had worsened again after she removed them. Palpatory examination revealed trigger points in her left masseter and anterior temporalis. We decided to treat her with needling of the trigger points in the masseter and temporalis. *Sp-4* and *Pc-6* were chosen as opening points for the *Yang Ming* or Ventral Zone. Additional points treated were *St-44*, *Li-4* & *11* [bilateral]. At the subsequent visit the patient reports that her pain disappeared after our treatment only to return ten days later. The pain worsened for 2-3 days at which point she had a dream in her sleep of the Dr visiting her and performing some vague treatment, when she awoke the pain was gone and did not return since.

***Discussion:*** *What is most interesting for me in this case was the effect of the patient dreaming she received treatment again after her pain returned. This brings to mind for me a connection with Seem's concept of Acupuncture Imaging. In a sense, it is as if my treatment of the patient had provided an temporary imprint for the body of a state of restored balance, which once it faded was restored with more permanency by recalling it in a dream.*

### **Conclusion:**

In this paper we have explored the role of Acupuncture Energetics in both treating Temporomandibular Dysfunction and in providing insight to a holistic understanding of these disorders. Our genetic predispositions and mal-adaptive response to changes in our environment can lead us to the development of imbalance or degradation of our body's energy system. As this occurs over time it will contribute to the development of a mal-aligned and dis-integrated body structure.

Balancing the forces of Yin and Yang as they course through the body facilitates the maintenance of a steady state of balance and equilibrium. Treatment of constrained areas and tight, tender points within the myofascia can effectively relieve pain and restore a relaxed state to the body's tissues. Temporomandibular disorders are most frequently top-down disorders, often occurring in association with structural distortion or deficiency of the Cranio-mandibular articulations. These disorders will generate excessive activity in the musculature of the head and neck affecting principally the yang meridians. As discussed above Temporomandibular disorders can also be bottom-up disorders arising from weakness in the lower extremities and associated Yin organ the Kidney.

In the treatment of Temporomandibular Dysfunction, acupuncture is a most effective means for

the relief of pain and release of contracted myofascial tissues in the head, neck, and jaw.

Used alone its benefits may be symptomatic relief only, especially in cases where the underlying core problem is a deficiency or disharmony of the structure of the teeth and occlusion of the jaws and cranial mechanism.

Used in concert with modalities of physical medicine, such as Applied Kinesiology and Osteopathic Manual Medicine, the benefits of Acupuncture in the treatment of Temporomandibular Dysfunction are amplified.

Touched upon, but not fully explored in this paper, is this author's interest in a body of work he calls Dental-Somatic Integration.. This correlates with Mark Seem's concept of Acupuncture Imaging. By restoring the body to its genetic blueprint the potential for healing and full actualization of a human being is facilitated.

## **Addendum I**

In the early 1980's I was introduced to the work of Dr. George Goodheart, the father of the clinical science of Applied Kinesiology. Kinesiology is the study of the body's movement and the mechanisms by which it occurs. Applied Kinesiology is essentially the practice of applying this knowledge to optimize body function. When the function of the body improves, by definition so does the health of the person.

### *How it is done:*

Applied Kinesiology is practiced by making use of the muscle reflex test phenomenon. In this test the ability of a muscle to maintain the position of a limb[ for example the arm] is evaluated by applying a gradually increasing controlled force to the end of the limb. For instance we might test the strength of the shoulder muscle {the deltoid} by having the patient extend their arm out parallel to the floor, and applying a graduated controlled force of a few pounds to their arm in the wrist area. If the muscle we are testing is functioning normally it will be able to resist our force and keep the arm stable. If at the same time, we are testing this muscle, we also touch {therapy localizing} a reflex point {may be acupuncture or functional reflex point} on the patient's body, we may find our previously strong muscle testing weak. This would indicate a functional disturbance in that aspect of the patient. Correction of the disturbance may be achieved in numerous ways depending on the nature of the problem.

If the problem we are identifying were a disturbance in the function of a muscle for example, we might 1st apply one of the principles Goodheart identified. He found that there were five principle factors that might disturb the function of a muscle. These are : interference of nerve flow, interference of blood flow, interference of lymphatic drainage, deficient nutrition, and altered acupuncture energy flow. These would be addressed by applying methods of Cranial-Sacral & Myofascial release therapy, massage of reflex points, nutritional therapy, or acupuncture.

Written in 1996 as my thesis for graduation from Tri-State College of Acupuncture.

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