Unmasking the Imposter: Effective, Predictable Treatment for Symptom Sets Known As TMJ, FM and More

by Farrand C. Robson, DDS

TMJ problems have long been called the "Great Imposter" since they have been related to a myriad of symptoms and conditions throughout the body. Evidence now strongly suggests that TMJ disorders are not the "Great Imposter" but rather, a key part of a systemic disruption that may be responsible for a great many concerns.

Chronic, generalized musculoskeletal pain appears to be only one part of a broader condition that includes TMJ and related conditions.[1-4] These conditions include, but are not limited to, Fibromyalgia, Chronic Fatigue Syndrome, Tension Headache, Low Back Pain, Migraine Headache and Post Concussion Syndrome.[5-8]

Head, neck, upper back, shoulder and facial pain, as well as, TMJ ("ear") pain and noise are symptoms related to TMJ. Other symptoms, such as postural breakdown, on-edge feelings, sleep disturbance, generalized aches and pains, foggy feelings, and aversion to cold and touch frequently accompany TMJ disorders and often are part of the conditions that have been related to TMJ.

Remarkable benefit for many millions of people is possible if the origin of TMJ disorders is demonstrated and then linked to the host of these somatic pain syndromes. This could take place once there was a testable hypothesis of the etiology of TMJ dysfunction coupled with an effective and predictable therapy. The suggested linkage of TMJ problems to cardiovascular disease, stroke, sleep disturbance and hypertension[5] makes this diagnostic and treatment approach even more significant and urgent.

This paper suggests the origin of TMJ dysfunctions and presents a testable hypothesis with effective therapeutic systems.

The first article in this series (June) presented background in scientific literature. This second article discusses a new diagnostic and therapeutic approach having profound systemic effects and showing great promise in health care. This therapeutic approach provides exciting possibilities for the millions of people who suffer from the broad range of symptoms and named conditions.

The Origin of TMJ and "TMJ-Related Conditions"

Any compromise in the ease of oral functions rapidly leads to compensations to maintain these vital functions. Musculoskeletal compensations are necessary to maintain these oral functions.

The working hypothesis developed by the author is that these compensations in themselves produce the symptoms known as TMJ disorders. If clinical therapy provides greater ease of performance of these oral functions, a decreased level of muscle contraction and Autonomic Nervous System (ANS) involvement would be expected.

Over the past 15 years, the author has tested and established the validity of the hypothesis through a specialized interactive history that can suggest Impairment of Oral Function. It can further be clinically tested by supporting and providing a greater ease of oral functions and then monitoring TMJ symptoms.

Rapidly reducing these symptoms validates the use of the underlying hypothesis as a conservative therapeutic approach. The widely suggested relationship between TMJ problems and the group of conditions related to TMJ, such as Fibromyalgia, can likewise be evaluated with this hypothesis. As shared by Dr. Howard Hindin, "Oral Systemic Balance (OSB) provides an assessment and therapeutic technique that delivers a predictable treatment course and outcome. We have seen chronic pain drastically reduce, sleep improve, high blood pressure drop, anxiety and depression virtually disappear, as well as many other changes. There is no other treatment that I know of that is available today that comes close."

Impairment Of Oral Functions

Jaw dysfunction implies some impairment of the primary oral functions: breathing, swallowing and speaking. Impairment of Oral Functions (IOF) can then be defined as a reduction in the ease of the jaw component of these functions. Central to these functions is the tongue and the oral and pharyngeal spaces that are above and behind the tongue. This system is under ongoing regulation and maintenance by the ANS.

The Oral Systemic Balance (OSB)

There is an Oral Systemic Balance (OSB) that is the equilibrium of†the mouth and body via the ANS to offset disruptive changes. When disrupted, partial or full restoration of this balance should be expected to profoundly affect an individual's symptoms and provide better understanding of TMJ and "TMJ related conditions."

The most significant factor in the OSB lies in the body's efforts to maintain a patent throat (pharynx), allowing breathing, swallowing and speaking to occur. This happens largely through muscle contraction mediated through the ANS. Understanding the major body postural muscle compensations that act to maintain the pharynx and thus the ease of oral functions helps us understand the muscle contraction pain and ANS effects associated with TMJ and related conditions. These were discussed in the first article and include: forward head posture, jaw muscle activity, dental shapes and contours, and fight or flight feelings.

Oral Systemic Balance© is also the name of the training and development organization founded by the author. The corporation is actively engaged in the dissemination of this knowledge and providing training for leading practitioners like Dr. John Walsh. He shares, "It would be an understatement to say that OSB has changed my life and my practice. I believe that it would be in any dentist's best interest to take

one of OSB's training sessions and get involved."

The diagnostic and treatment protocol developed is called the OSB protocol. It involves a unique history, clinical testing and treatment system.

The **OSB Protocol** includes:

I. Interactive History
II. Physical Evaluation
III. Clinical Testing
  A. Jaw Functions in TMJ and TMJ Related Problems
  B. Radiographic
  C. Physiological
  D. Postural
IV. OSB Intraoral Orthotics Systems

The OSB Protocol

Determination of deficits in an individual's oral functions is difficult. Some individuals do have obvious disturbance of jaw functions, evident with their speech, swallowing, eating and breathing. In other individuals, these functions appear normal even though significant muscle and joint dysfunctions are present. Investigation has shown that examination of jaw functions is important to elucidate possible etiological factors behind the reported complaints of Fibromyalgia.[9]

Body compensations additionally support these oral functions and may conceal underlying problems. For example, breathing may be grossly normal and without limitation but may require unappreciated forward head and jaw posturing[10] in order to keep the throat open and support oral functions. Head, neck and jaw muscular pain may result without any awareness of the underlying disturbance of jaw functions.

I. Interactive History

An initial interactive jaw function history is part of the OSB protocol. It is designed to reveal the apparently minor upsets with jaw functions that may initiate a compensatory muscular response. When disturbances in the ease of oral functions are suggested by this patient interaction, clinical testing is then employed. This will test the relationship of symptoms to the jaw and test the hypotheses that: 1) the symptoms are related to IOF; 2) IOF plays a role in the jaw related (TMJ) pain concerns.

The interactive jaw function history evaluates the jaw component of speaking, swallowing and breathing. It includes assessment of on edge feelings and their association with TMJ-related pain problems.

Nor-epinephrine facilitation of muscle action and nerve conduction is part of TMJ pain. The on-edge feelings from nor-epinephrine are most often thought to be "stress," "anxiety," "anger," or some other psychological concern. As part of the interactive history, inconsistencies in the individual's experience with the assumed psychological origin of the on edge feelings are also made apparent.

The relationship of these feelings to jaw functions can then be evaluated in the clinical testing. For example, the author recently treated E.M., a young woman who was constantly feeling on-edge, experiencing panic attacks, chronic pain, and irregular heart rate for no apparent reason. She had also been battling anorexia and bulemia. Once jaw function was restored, all of these symptoms resolved and in a testimonial she wrote, "I felt like a new person, breathing in all this wonderfully cool air, and finally feeling really relaxed." See Figure 1 for her radiographs.

Pain and dysfunction histories including sleep and psychosocial histories are also taken and must be considered in the plan of treatment. The presence of underlying medical concerns, most often related to IOF, is also considered and may affect therapy. For example, hypertension is often seen to resolve using OSB Therapeutic Systems©. Medications that control hypertension are then no longer needed and therefore may produce undesirable effects. In many situations OSB therapies should be provided in combination with medical care as it is with Obstructive Sleep Apnea (OSA).

Effective treatment of OSA is accomplished when normal ease of oral functions is restored through recruitment of normal reflex responses coupled with jaw position modifications. OSA is caused by being choked by the tongue and is an extreme example of impairment of oral functions. Since OSA is a 24-hour problem, typically night and day orthotics are prescribed.

II. Physical Evaluation

Physical evaluation includes a general assessment. Skin tones and variation in these tones, as well as general level of physical intensity and individual affect are noted. These observations can reveal compensations and show how well the system is compensating, as well as, the severity of concerns. System upset is often revealed by head and body posture and gait, along with speech level, tone and patterns, and breathing and swallowing patterns. Frequently with these observations, Impairment of Oral Functions is clearly evident.

Dental evaluation involves range of jaw motion, head and neck muscle palpation and TM Joint assessments. These can all provide information about the health of the system and level of muscle contraction present, which can overload and damage the TM Joints. These findings show the musculoskeletal origin of the symptoms and the degree of system upset. ➤

Figure 1: E.M.'s lateral head film before and immediately following placement of OSB orthotic.

The intraoral evaluation also can reveal much about the compensation patterns present that are supporting oral functions. Indentations of teeth in the lateral border of the tongue are evidence of the forward tongue posturing that allows for a more patent throat. Likewise tongue thrust is a compensation to allow a more open throat and may alter tooth position. Irritation of the soft palate and uvula are also common and associated with snoring.

Dental arches that are excessively broad, tooth position irregularities and a lower jaw that is underdeveloped are also associated with impaired oral functions. Dental bite changes can reveal underlying jaw position alterations that can lead to further muscular involvement.

III. Clinical Testing

A. Jaw Functions in TMJ and Related Problems

Breathing is chosen as the representative function for initial clinical evaluation. The patient can be made aware of their breathing patterns and they can easily be monitored and verified by the practitioner. Changes in pain locations and levels as the patient alters their breathing patterns are recorded, as well as the patient's assessment of how relaxed they feel.

This clinical evaluation contrasts the ease with which breathing occurs in different jaw and head positions as well as with induced elevator muscle activity. Contour adjustments of the intraoral orthotic and their effect on ease of breathing is also measured. Other variables cancel themselves out so that any changes are representative of the function tested.

Jaw Relationship To Ease of Breathing and TMJ Symptoms

The patient is first made aware of their breathing pattern. They are then instructed to move their lower jaw to a comfortable forward position and notice how they breathe. With brief instruction, they will soon be aware of deeper and freer breathing with the modified jaw position. Often they also report feeling the coolness of the breath in their throat.

When breathing freely with the jaw in the Position of Ease of Breathing (PEB), changes in breathing patterns are observed as the thorax and abdomen move more freely. Head posture typically becomes visibly more upright and skin tones improve. They again can be asked to report pain levels, pain locations, and their level of relaxation. Decreased pain and on edge feelings are expected as the PEB allows greater ease of oral functions. The reduction or resolution of pain and the increased feelings of relaxation result from the decreased need of muscles to hold positions that support the throat.

Head Positions and Compensations

Further demonstration is accomplished by again having the patient sit in their usual posture and then have them notice the Ease of Breathing (EB), as well as pain levels and how relaxed they feel. Then, with their back teeth gently together have them sit up straight with a roll in their lower back, shoulders back, and chin tucked in. Most TMJ patients cannot swallow, speak or breathe without great effort in this normal position. Have them move their head forward and note the EB. The head position test is then repeated and the inability to swallow, speak or breathe is relieved with jaw forward placement.

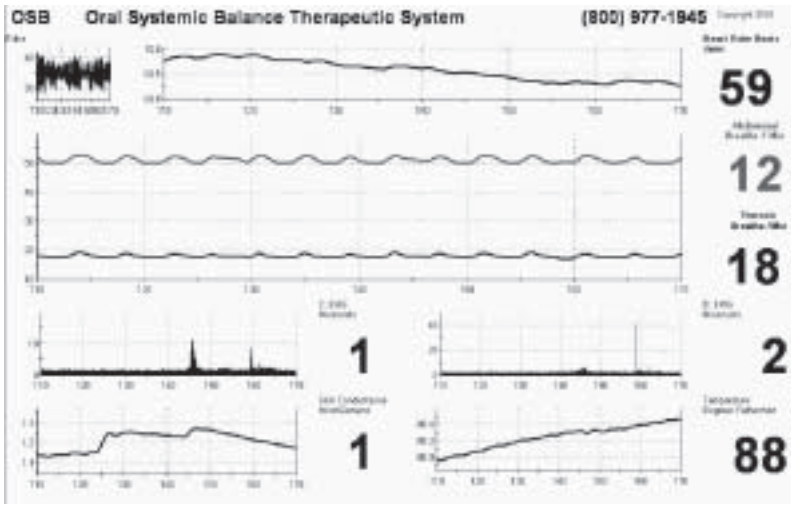
The Jaw-Tongue Reflex

The Jaw-Tongue Reflex (JTR) allows jaw control of tongue position in the pharynx. Contraction of elevator muscles, primarily the anterior temporalis and superficial masseter muscles, initiates this pharynx opening reflex.[12] This jaw control of the tongue is also seen during feeding and is initiated through the JTR during clenching.

The great majority of people breathe easier when clenching. Some training is needed to allow the individual to have adequate awareness of the changes in their EOB. Often the throat is felt to tighten when clenching. This is the contraction of the genioglossus and other muscles that contract to allow a more open throat. Grinding likewise initiates the same reflex.

If clenching does not appear to rapidly result in increased ease of breathing, then clenching with the jaw forward almost always shows this reflex to be present. This is no doubt the primary reason for bruxism. Bruxism does not cause TMJ problems but is a compensation that can result in jaw and temporalis muscular discomfort as this body compensation is acting to maintain an open throat.

Figure 2: Thought Technology's screens showing M.R.'s physiologic measurements before and immediately following placement of OSB orthotic. M.R. had panic attacks, sleep disturbance, dyslexia, and head, neck, facial and other pain prior to OSB therapy.



Test of Dental and Oral Contour

The contact of the tongue with the teeth and soft tissue in the mouth produces muscle contraction effects in the tongue that directly impact the throat opening and muscular balance of the throat. This contributes to the ease of jaw functions. Intraoral contours are reproduced and modified on orthotics in order to manage the ease of jaw functions and therefore reduce muscle contraction and on edge feelings and improve head posture.

An initial diagnostic orthotic is made and the oral shapes and forms are individually modified for the patient in order to initiate neuromuscular reflex responses that allow a more patent pharynx and greater ease of oral functions. There are very specific oral structure shapes that are used and related to specific areas of muscle contraction discomfort. With this diagnostic orthotic in place, changes in EB and levels of relaxation and pain are recorded.

These exercises together demonstrate:

1) that postural muscle compensations are present to allow oral functions to take place.

2) the relationship of head and neck posture and the jaw to these compensations.

3) that shapes and contour of oral structure affect jaw function, body posture and pain.

B. Radiographic

Lateral head films showing soft tissue can provide a large amount of information. Head posture, as well as tongue position and the character of the throat are evident on these films. Radiographic confirmation of postural change can be shown with lateral head films taken in the patient's natural body posture position. One film is taken within the dental bite position and the other is taken with the jaw held in the PEB or with a diagnostic orthotic in place. These films additionally are useful to guide and document therapy. Radiographic evaluation also includes panoramic and plain TM Joint films.

C. Physiological

Physiologic monitoring plays a critical role in management, as well as, the diagnosis of these concerns. Oximetry is frequently used, although Heart Rate Variability (HRV) coupled with a variety of physiologic measures provides a greater depth of information. In selected cases EKG, blood pressure monitoring and other tests are used.

HRV is a measure of the level of adaptability and physiologic functioning and is a predictor of cardiovascular disease and stroke. OSB therapy© frequently results in improvement in HRV analysis. Deterioration in HRV levels has often been recorded with other dental devices, including TMJ orthotics, as well as, with individual crowns and tooth extractions. Use of this measure provides another level of safety for the patient, especially since there is a recognized correlation with dental treatments and cardiovascular reaction.[12]

D. Postural

Postural analysis is a vital facet of the OSB Therapeutic Systems©. Frequently dramatic postural changes occur with OSB therapy. When the ANS mediated musculoskeletal are no longer necessary to maintain oral functions, posture rapidly reverts back toward normal; this often has a marked effect on an individual's entire body posture.

Tools of measurement, such as the OSB postural grid used with Dr. Joe Ventura's OSB PosturePro computer evaluation program are utilized during the treatment process to analyze the patient's postural response to therapy. Normalization of posture is seen with the patient's height, head, shoulder and hip tilt, and knee offset as the patient progresses through care and the shapes and forms contained on the intraoral orthotic are modified.

IV. OSB Intraoral Orthotics System

In the treatment, the Oral Systemic Balance© (OSB) intraoral orthotic is used.[13] There are three major subtypes of the OSB orthotic: maxillary, mandibular and combined. The OSB intraoral orthotics involve the placement of specific shapes on the orthotics and may include some jaw positioning. Each orthotic is custom designed to reduce stress and muscle pain through enhancement of the functions of the jaw and to allow self-reduction of forward head posturing. OSB© intraoral orthotics are patented and manufactured only in OSB laboratories. The very precise shapes and forms needed for these orthotics are generated using data collected from the OSB protocol.

OSB orthotics are used as part of the overall OSB Therapeutic Systems© of evaluation and therapy. The orthotics are employed in combination with other TMJ considerations and treatment. OSB protocol clinically assesses functions, tests the impact of jaw function, generates critical patient awareness and uses OSB orthotics as a part of treatment to facilitate improved jaw functions. The muscular pain of TMJ problems and overloading of TM Joints is primarily the result of the elevated muscular contraction[14] that is needed to maintain the ease of mandibular (oral) functions.

The "Great Imposter" Unmasked

Remarkable results are repeatedly being reproduced by trained doctors following the OSB protocol and lives are changing. What are the possibilities?

Dr. Roy Hakala saw a gentleman disabled with loss of strength and unbearable pain. He was diagnosed with unspecified neuropathy, Fibromyalgia, and Multiple Sclerosis. Ongoing treatments failed to provided any benefit. Following the first several office visits for OSB therapy, Dr. Hakala knew the man was doing well when he was late for an appointment because he had been pitching a softball game!

Dr. Jeffrey Hindin speaks of a young woman experiencing daily migraines that after OSB Therapeutic Systems© have not returned, "The change in her appearance and personality and her gratitude is inspiring. Results with other pain patients have been similar, predictable and consistent."

As OSB therapy has been receiving more attention, thousands of people across the country are calling the OSB referral line. These people share stories of debilitating pain and suffering. They also tell us of the comfort, peace and resolution they have had through OSB therapies, like Dr. Blake McKaskle's patient recognizing OSB therapy as "a true blessing."

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No more will the "Great Imposter" be used to dismiss jaw-related symptoms from consideration as the origin of a host of systemic conditions. Rather, they can be considered as access to understanding and treating a greater systemic disruption. It is not a matter of will a dentist provide care that will affect the throat and ease of oral functions, but rather will they choose to pay attention to what occurs with dental treatment.

Dental care affects systemic health. After taking several courses Dr. Tom Bosma stated, "I have a new and profound respect for what we do as dentists and how integral it is to our patients' whole health. From a patient's perspective it is even greater. A woman receiving OSB therapy from Dr. John Walsh proclaimed, "I feel like a new person" and she is.

To enter an OSB therapy training program leading to licensure as an OSB practitioner, making these remarkable benefits available to more people or to locate your nearest OSB licensed doctor call 1-800-977-1945.

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