

Craniofacial Complexities

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This article is about the often-missed “vital to survival” craniofacial and jaw function and the serious health consequences that are associated with head, face, neck, and dental occlusion compromises. My hope is that it will lay the foundation for an expanded perspective and treatment plan for our sensitive patients, some of whom will not be able to respond to the usual treatments until these craniofacial issues are properly addressed.

People who have chronic inflammation like mycotoxicity and other biochemical imbalances who also have craniofacial dysfunctions may have a much more complicated healing process. Interestingly, optimal craniofacial structural development begins in utero. If the mother's facial structures are compromised with an underdeveloped upper and lower jaw that creates a suboptimal airway (the space behind the tongue), the baby's growing face is formed in this oxygen-deprived state, resulting in an upper and lower underdeveloped jaw formation. This situation demonstrates one of the basic principles of osteopathy: that the dysfunction of a system (suboptimal oxygenation) creates a dysfunctional structure (underdeveloped facial structures). So, a mother with a compromised facial breathing structure will create a child with an underdeveloped facial airway structure. Our health begins with our capacity to breathe and oxygenate our tissues for growth and repair. If we do not have optimal oxygenation, our biological system will be dysregulated and will function in “survival mode,” which can dictate our experiences in life as “fright, flight or fight.” Unfortunately, our facial growth over the generations has been stunted since the industrial revolution by processed foods, poor soil nutrition, and a softer diet. These conditions have



created an underdeveloped upper and lower jaw structure. So, most of our patients these days have some degree of a suboptimal airway structure, leading to a heightened survival mode-wired nervous system with less ability to meet other life challenges.

The birth process is the second experience that can compromise craniofacial growth and development. As the baby's head is molding and compensating to deal with the forces of birthing, in an attempt to prevent an injury to the head and neck, cranial nerve injuries and entrapments can occur. Some of our sensitive patients were compromised at birth with vagal nerve entrapment syndrome, creating a whole-body compromise with a suboptimal vagal tone. A compromised vagus nerve decreases the body's capacity to detoxify biotoxins, including mycotoxins. This could explain why some patients' detoxification process is slower, tolerating smaller amounts of binders or no binders at all.

There are other cranial nerves that can be “entrapped” during a traumatic birth, such as the hypoglossal nerve, which controls the muscle contraction and coordination of the tongue. Compromise to this nerve will create a narrow palate with an underdeveloped face, an airway compromise, potential jaw joint problems, and chronic neck pain. Who knew that our birth could create such significant health compromises? Actually, any injury throughout life to the “vital-to-life” head and neck can have similar effects as a cranial birth trauma affecting the entire functioning of the central and peripheral nervous system and leading to a heightened, dysregulated nervous and immune system. This concept is central to understanding how these imbalances may contribute to the development of sensitivity in our patients who are at risk, especially through their effects on the limbic system and vagus nerve that you will see are paramount in my discussion.

For a person with craniofacial dysfunction, the function, motion, and structures of the cranium and face are compromised, creating increased sensory input to the brain. Because the face and head houses our functions of survival (airway, swallowing, and chewing), this area of our body has exponentially more neural



signals to the brain than other parts of our body. The increase in sensory input to the brain optimizes adaptability towards survival. As human beings, we grow towards maximizing our airway just as plants grow towards sunlight.

The sensory input from our craniofacial complex drives our facial growth, body posture, and even our dental occlusion. When there is a compromise to the functioning and structure of the craniofacial complex, the excessive amount of sensory input to the brain can create a “neuronal crisis” leading to a cell danger response with sensations that are overwhelming. That is to say, increased pain in the craniofacial complex can increase pain in the rest of the body. The limbic system can be repetitively activated with a craniofacial dysfunction as the neural input is informing the brain that survival conditions are being threatened. This situation can also be stimulated by an injured tooth or a subacute infection associated with a “bad” root canal. The neural input to the brain through the trigeminal nerve, which contains the largest sensory nerve input to the brain, can create an “overwhelm” or overstimulation to the brain. As the sensory input from the trigeminal nerve is received in the reticular formation in the brain, the overloading neural input creates disintegrated neural output responses that can leave the nervous system in a state of heightened sensitivity, panic, and sensations that become chaotic.

There is a biologically reasonable reason for the trigeminal nerve to take up so much “space” in the brain. It’s because it is the sensory input from the face which holds our vital functions of breathing, chewing and swallowing for survival. This information is essential for the body to make adaptive compensations to optimize health. The bad news is that if there is craniofacial dysfunction, the overstimulation of input to the brain creates a condition that compromises the healing process. Relieving craniofacial dental dysfunction can give immense mental, emotional, and physical relief to the system, allowing the body to heal itself with more ease and peace.



Causes of craniofacial dysfunction include:

- Birth trauma to the craniofacial area
- Plagiocephaly (asymmetrical head at birth)
- Torticollis (wry neck at birth)
- A history of a head/face/neck injury
- Temporomandibular joint dysfunction
- Tongue-tie
- An abnormal swallowing pattern
- A dental misalignment of the teeth

Symptoms of craniofacial dysfunction include:

- Vagal nerve compromise and dysautonomia
- GI dysregulation
- Brain fog
- Head and neck pain
- Trigeminal neuralgia
- Bell's Palsy
- Difficulty with mycotoxin detoxification
- Difficulty nursing
- Torticollis
- Allergies
- Open mouth posturing with narrow palate and dental crowding
- Temporomandibular joint dysfunction
- An abnormal swallowing pattern
- A dental misalignment of the teeth
- A history of being a “colicky baby”
- Facial asymmetry
- Visual disturbances
- Chronic sinus and ear infections



- Sleep apnea
- Facial tics

And many more...

We can see that craniofacial structure and function are important to overall health but how does trauma specifically affect the functioning of the head, face, and neck? Basically, trauma affects the motion and function of the structures, and it is essential for the body to have motion to optimize function for health. Motion is the basis of life and is the essential foundational component needed in a biotensegrity system such as our bodies. The capacity for expansion and contraction or compression of the soma is vital for the pumping action needed to drive the essential nutrients (blood, venous, and lymphatic) into and out of the cells. Flexibility and stability are also essential to the coherence and integrative capacity for movement of the human body as a whole. The body is one functioning unit. The cranium and face have a subtle physiological motion that is pivotal for optimal health, and trauma can affect the motion and function of the system.

The biotensegrity model explains the complexities of movement and stability of an interdependent, integrated, complex system in living organisms. This principle is based on the idea that our bodies are mainly tensegrity structures with an integrated capacity for flexibility and stability, with motion as the fulcrum holding the structure together. This principle is based on the requirement for all parts of the system to be in motion. If one area is restricted by an injury or compromise to the tissue, the entire system is constantly compensating for that restricted area, which creates a disintegrative biological system.

Our fascial matrix is considered an interconnected tensional network. In this view, our bones are not in direct contact with each other; rather they are floating in the tension structure that is created by our fascial network. Bones and tissues make up a dynamic balance of compression (pushing forces) and tension (pulling forces). Through this global fascial network, any force can influence and adapt to any part of the whole, from cells to the entire soma. In other words, our structure functions



to create stability and a homeostatic neural input to the brain. (For more on this subject, see the chapter on osteopathic manipulation and its role in the sensitive patient).

Twenty-nine bones, including the three inner ear bones and the hyoid bone, participate in the integrity of the craniofacial complex. These bones interdigitate with one another in a unique pattern, creating a specific motion for each bone. The subtle movement of each bone is essential not only for providing a “cushion for compression” to protect the brain from injury but also to provide a flexible container for the “breathing” (movement) of the central nervous system, which is of paramount importance for the brain drainage detoxification process, called glymphatic drainage. This process keeps the brain healthy by pumping toxic products of cellular respiration out as well as other toxins that can damage neighboring healthy brain cells. This subtle inherent physiological motion of the face and cranium is our protection against neurodegenerative diseases, which are now understood to be the result of an inflammatory process that the body is unable to regulate properly. The motion and compressible nature of the craniofacial bones are vital to the optimal functioning of the brain and cranial nerves. A compromise to the motion or position of any of the 29 bones can have a profound effect on the health of the individual by affecting the brain detoxification process and/or impinging on vital cranial nerves.

Let’s circle back to how our birth process can affect our healing capacities. The birth process is one of the most formative processes most of us will encounter. The compressive forces that shape the cranium affect the craniofacial structure and functions. It is never too late in one’s life to receive cranial osteopathic treatment to address the craniofacial birth compressions. We continue to heal and remodel until we are no longer breathing.

During the birth process, the baby’s head compresses the mother’s cervix to stimulate dilation and open the tissues. Any compromise to the opening of the cervix (secondary to malposition of the baby’s head and other causes) that creates



less stimulation to the tissues or lack of softening of the cervix can lead to an increase in compression into the baby's head, creating cranial injuries. A birth in which Pitocin, vacuum extraction, or forceps are used, or that exceeds the "pushing stage" of two hours, is considered to be a traumatic birth from the baby's perspective.

The area of the baby's skull that is most vulnerable to compression and displacement is the back of the head. The cranial bone in the back of the head is called the occiput and it articulates with the first cervical vertebra. This is the most resistant area to molding and compensation of the birth forces. The first joint that the compressive forces encounter is between the occiput and the first cervical vertebrae. Four very important cranial nerves that are present at the base of the cranium between the occipital, temporal, and first cervical vertebra are the glossopharyngeal, vagus, accessory, and hypoglossal nerve. The glossopharyngeal aids in the swallowing process. The vagus nerve has the widest effects in the body, ranging from gastrointestinal health to emotional well-being and cardiac function. Any compromise to this nerve can have vast health effects. The accessory nerve innervates the trapezius and sternocleidomastoid muscle (SCM) and is responsible for turning the head and neck. Compromise to this nerve creates torticollis (wry neck). The hypoglossal nerve is the motor nerve to the tongue. When this nerve is entrapped, the baby is unable to nurse and swallow properly. The atypical swallowing pattern will affect a normal facial growth and development and thus compromise the development of an optimal airway which is a growing, undiagnosed compromise to one's health.

The consequences of compression of these nerves include issues with swallowing, sucking, digestion, range of motion of the neck, torticollis, spitting up after feedings, gas, bloating, and constipation. A functional swallow is a primary driving force for facial growth and development which creates space for all 32 teeth. If the hypoglossal nerve has been compromised by a head injury or birth trauma, there will be suboptimal formation of the palate and airway, leading to crowding of the



teeth and misalignment of the dental occlusion. The position of our teeth is a consequence of our breathing, swallowing, and chewing pattern; tongue resting position; and the position of the craniofacial bones. The teeth will erupt and move to form an occlusion, in which the teeth in the upper jaw touch the teeth in the lower jaw, forming the largest “joint” in our bodies in order to support an upright physiological position and neurological neutrality. If the teeth are not in a supportive occlusion, the neural sensory input to the brain through the trigeminal nerve can create overwhelming constant feedback that “something's not right.”

This constant feeling of dis-ease provides ongoing, relentless stimulation of the sympathetic nervous system that continually gives the limbic system and vagal nerves that it must be alert to the possibility of danger or threat and can be an important stimulus to the creation of a hypervigilant, sensitive patient.

Common symptoms of compression at the base of the head (occipital condylar compression) include:

- Nursing problems
- Difficulty sucking and latching
- Poor milk supply
- Painful nipples with nursing
- Baby falling asleep on the breast
- Reflux and vomiting
- Spitting up after nursing
- Colic
- Opisthotonus (arching of the head)
- Constipation/gas and bloating
- Airway issues/snoring
- Crowding and misaligned teeth



Craniofacial Dysfunction and the Vagus Nerve

The vagus nerve has been named the King of the Nerves because of its vast domain of effects and influences. It is the longest cranial nerve, traveling between the head and the gut and is thus at greater risk for compressive forces and injury compared to the other 11 cranial nerves that travel shorter distances. The most common areas of structural compromise to the vagus nerve are as it exits the base of the cranium between the occiput and temporal bone and as it travels in front of the upper cervical vertebrates. Head and neck injuries can injure the nerve creating “vagal compression syndrome.” Many studies cite the relationship between the vagus and the brain-gut connection. There is also evidence of the onset of “leaky gut” within two weeks of a head injury, which will affect the capacity to detoxify biotoxins, including mycotoxins. Birth trauma, cervical whiplash injuries, head injuries, and temporomandibular dysfunction (including all the etiologies of temporomandibular dysfunction (TMD)) are the most common etiology to the compressive dysregulation of the vagus nerve that creates vagal compression syndrome.

As the vagus exits the cranium between the occiput and temporal bones, the motion of the temporomandibular joint and the temporal bone can affect vagal tone. Restriction of the joint and temporal bone can compress the fascial-filled space called the jugular foramen, which is a space between the occipital and temporal bone. This provides the exit for the vagus, glossopharyngeal, and accessory nerves out of the cranium to their endgame innervations. If the temporal bone has been slightly displaced and/or compromised in its motion, the jugular foramen will have less space, creating an entrapment of these cranial nerves and lymphatic and venous drainage.

It is very interesting to note that most of the lymphatic and venous drainage from the brain also exits the skull through this space. Our lymphatic and venous system is completely dependent on motion for drainage. This is the reason that the lymphatic and venous vessels are located between muscles and bones. They need



the pumping action of those structures to create a negative pressure that is the driving force for fluid drainage. So, yes, our brain drains toxins through the space between the occiput and temporal bone. And the health of our brains is dependent on our cranial motion and most specifically our temporal bones.

Temporomandibular Dysfunction

The temporomandibular joint (TMJ) is crucial in balancing the cranio-cervical mandibular dental complex. However, we still have much to learn about its contribution to craniofacial dysfunction, vagal dysfunctions, neurodegenerative diseases, glymphatics, airway dysfunction, and movement disorders, as well as diffuse and localized chronic pain syndromes.

Traumatic injuries are an important etiological factor in the development of TMD disorders affecting the vagal tone. Individuals who sustained whiplash injuries in automobile accidents have an increased risk of developing TMD. Many people have experienced pain, popping, crepitus, and/or a change in the opening width of the mouth after a car accident. The TMJ is the accommodator for the changes in the cranium, cervical vertebra, vision, dental occlusion, tongue function, and neuromuscular integration, as well as vagus nerve function. It connects the face with the cranial bones, hyoid, and cervical vertebrae. What is commonly missed about this joint is that it stabilizes the functioning and volume (space) of our airway (the space behind the tongue and in front of the neck) as well as swallowing, chewing, speech, and cervical stability. We need our jaw joints to have optimal functioning for optimal capacity for airway, chewing, swallowing, and brain drain for neurological functioning, and capacity to maintain an physiological upright position. I believe that craniofacial dysfunction and vagal compression syndrome plays a large but often unappreciated role in our patients who have developed POTS (postural tachycardia syndrome), many of whom have lost the ability to maintain an upright neurological stance.



There is clear evidence that patients who have experienced a traumatic brain injury (TBI) are more prone to neurodegenerative diseases. The osteopathic perspective in understanding these illnesses is that the movement of the central nervous system, the dural membranes, and the cranial bones have had their inherent motion restricted through the compressive forces of an injury, and thus brain drain or glymphatic flow has been compromised. When there are obstacles to brain drain, products from normal cellular respiration become toxic waste products and build up within the brain, damaging the surrounding healthy brain cells and leading to neurodegenerative diseases. Almost all neurodegenerative diseases are associated with the accumulation of these cellular waste products in the brain. Having an open outflow, which includes soft mobile cervical tissue, helps to keep the brain draining and healthy. There also needs to be freedom in movement in the front of the neck (scalenes and sternocleidomastoid (SCM) muscles) for optimal brain lymphatic draining out of the head and into the neck. Brain fog is a common experience when there is suboptimal craniofacial motion as the cells in the brain are compromised with toxic cellular debris. Suboptimal sleep also relates to suboptimal glymphatic drainage. Most of the brain drain happens when we sleep as the brain cells contract and allow the toxins to exit into the fluid between cells and out of the brain through the glymphatic system. So, the less sleep we have, the less brain drain we get. We can see that an increase in sensitivity and fragility of health could be a consequence of a functional/structural injury to the head, face, and/or neck area, which can compromise optimal brain drain and lead to vast health challenges.

The Current Epidemic of Airway Compromises

Today, our faces resemble more of a “bulldog” look, with our upper and lower jaws underdeveloped, than they did thousands of years ago. This shorter face from front to back leaves a smaller space behind the tongue for our air to travel to our lungs, leading to airway deficiency. This is another craniofacial dysfunction cause for the sensitive patient. Many factors contribute to this development. The human diet has been softening ever since the use of fire for cooking. It softened further in the



transition from hunting to farming. However, it was not until the rapid spread of industrialization in the nineteenth and twentieth centuries that food became so soft it deprived the jaw system of the exercise needed by the jaw muscles to develop properly and stimulate facial growth. The resulting loss of healthy chewing exercise and the consequential changes in the form and function of the jaw system have significantly altered the pattern of modern human facial growth. This produces a number of significant health consequences, which include sleep apnea, diabetes, cardiovascular disease, hypertension, strokes, depression, dementia, dysbiosis, CFS, poor vagal tone, and attention deficit disorder (ADD/ADHD). These are all consequences of airway compromises.

There is also a significant rise in the incidence of tongue-ties. Presently, one in three children have tongue-ties. A limited and dysregulated tongue function will create distortion and dysfunction to the craniofacial complex. Why is there a decrease in facial development over time, an increase in sleep apnea, crowding of the teeth in children, and tongue-ties? They are all related and have to do with the interplay of our modern diet, environmental toxins, nutrient-poor soil, invasive birth interventions, and loss of the functions that create the face.

The nutrient-poor condition of our lands and foods has also created softer, weaker bone structure. We are now born with a degree of osteopenia (weak bones). We see this in children with changes in the arch structures of the body all the way from a narrow high palate to the collapsing feet arches (pronation). A collapse in structure is occurring. The cranial bones are also softer and less dense, which can lead to less protection during the birthing process as well as traumatic brain injuries. The combination of increased forces used at birth (vacuum extractions and Pitocin) and a less protective cranium creates a setup for increased cranial nerve injuries.

The consequence of the above conditions is that our faces are compromised for airway and thus we have less adaptive capacity to optimize full function. Sometimes just one too many required compromises lead to a collapse of the system.



Treatments for Craniofacial Dysfunction

Osteopathic treatments engage areas of the body that have tissue restrictions and are compressed, usually secondary to injury or repetitive use injuries. Through engaging the restricted tissues as a fluid state, these treatments are able to resolve the restricted tissue and restore physiological motion. The separated hard and compressed tissue is then able to integrate with the whole of the system back into its physiologically fluid state, thus restoring inherent motion and optimal health.

The osteopathic perspective is to remove the obstacle of health first by restoring normal physiological motion, and then see how the body can heal itself. When motion has been restored, the need for specific interventions becomes more clear and less invasive. I like the image of a stormy sea as the complicated, sensitive patients. By engaging tissues to create a “neutral” in the tissues of the storm, the areas that are the fulcrum of the problem become clearer and the sea and tissue can tell us where we need to intervene. It helps to differentiate what the primary dysfunctions and the compensations are, clarifying and potentially simplifying the treatment process.

Other modalities beside osteopathic treatments that I have found extremely helpful in treating patients with craniofacial dysfunctions are functional medicine, mycotoxin binders, homeopathic constitutional remedies, prolotherapy/PRP (platelet-rich plasma) injections, cold laser therapy, and Fotona 1064 laser treatments.

Osteopathic treatments can increase motion and improve tissue flexibility but if the ligaments are hypermobile secondary to injury or poor nutrition, the implementation of prolotherapy and PRP has been extremely helpful. This modality in the hands of an osteopathic physician is very potent, as we can feel which tissues need the support, which can guide the injections to be very specific to address the instability. Some patients are finding relief from “craniocervical instability” (CCI) with PRP. From a holistic perspective it is important to address



all the cervical instability, not just the first cervical vertebra. Laser therapy is one of the cutting-edge treatment modalities in medicine. There is so much potential to heal with photobiomodulation, which helps to regenerate tissue. I use this modality on a daily basis with most of my patients. I have also been providing constitutional homeopathic remedies for close to 30 years in my practice. It has been a “miracle” turnaround for many of my patients.

The osteopathic, myofunctional, and orthodontic ALF (Alternative Lightwire Functionals) appliance has also been extremely helpful for the patients with airway, tongue, and temporomandibular dysfunctions, and/or malocclusions. This is a light wire that is placed behind the teeth and is adjusted monthly by an ALF-trained dentist while an osteopath trained in the ALF Approach also treats the patients. More about this can be found in my book, *The ALF Approach*. As an osteopathic physician, I am committed to finding the Health first and then using “do no harm” interventions as much as possible to help the patient heal themselves.

Some signs to look for to diagnose craniofacial dysfunctions:

- Facial and cranial asymmetry.
- Inability to stick tongue out beyond lower lip (one can definitely still be tongue-tied even if a patient can stick their tongue out further than the lower lip, but this is the first obvious sign). More information is in *The ALF Approach* book.
- Hold cheeks apart and swallow. If you are unable to swallow with lips apart, you may have an abnormal swallowing pattern and should see a myofunctional therapist.
- Popping or clicking (or pain) when opening and closing your jaw.
- The lower center of your teeth not lining up with the center of your upper teeth. This could indicate that your lower jaw is shifted to one side.



- Any of the upper teeth occluding inside of the lower teeth (cross bites).
- Any openings in your dental occlusion where the teeth do not come together.
- Open mouth breathing during the day or night.
- Head is held forward of the neck.
- When opening the mouth you can see the back tissue arches and the airway opening underneath.

These are just some of the physical expressions indicating craniofacial dysfunctions.

To help you to get a picture of how profoundly these issues can affect a patient's health, driving such an intense sensitivity that it literally takes over a patient's life, I would like to present the following case, some of which is provided by the patient's own words.

Barry's Story

Barry was referred to me by Dr. Nathan because of his craniofacial dysfunction and history of an inability to tolerate ANY binders, or limbic retraining, or vagal treatments or mast cell activation supplements, at all. He was so compromised that the effort of picking up his kids would induce a HERX reaction. His facial pain was so intense he didn't know how he would survive. He, like so many of our patients, had been to dozens of practitioners and was holding on to a thin thread of hope.

Barry presented to my office with extreme facial and jaw joint pain. He was restless with pain. He had a history of chronic sinus infections as a kid and grew up in a moldy house. He had a Class 3 dental occlusion. This is where the upper jaw is smaller than the lower jaw and the upper teeth are occluded behind the lower teeth.



It is a classic representation of an airway-deficient facial structure with midface deficiency, which is typically caused by a tongue-tie and/or an open mouth breathing habit. Given the history of growing up in a moldy house and a strongly positive mycotoxin urine test, the obvious conclusion is that Barry was unable to breathe through his nose secondary to the mold allergies and thus had to breathe through his mouth. The low tongue posturing (the normal resting position of the tongue is in the upper palate) as a result of open mouth breathing affected the growth and development of the upper palate (the upper jaw bone called the maxilla). On initial examination, a tongue-tie was also diagnosed. So, not only did Barry have open mouth breathing influencing his underdeveloped facial growth, but his limited range of motion of the tongue impeded the resting position of the tongue to the upper palate in order to grow the face in a forward direction.

Barry had two surgeries in an attempt to correct his dental occlusion. Both of these surgeries included cutting the upper and lower jaw bones and repositioning them to “fix together.” Barry had metal plates and screws in his face that were left from the surgery to stabilize the bones. It was after the first facial surgery that Barry started to have severe digestive issues, dizziness, and sleep disturbances. He would later learn that this was the beginning of a vagal dysautonomia created by the compression into the temporal and occipital bone connection with TMD. He then sought help from a functional medicine doctor who suggested supplements which “crashed” Barry’s life. He would later learn that because his vagus severely compromised his neurogastric immunological capacity to react to detoxifying supplements, the results of detoxifying supplements created a complete shutdown of function. Barry described the experience: “Over those months of supplements and dietary restrictions, on a scale of 1-10, my quality of life went from 8 (before treatment) to 0 (after treatment). Now, the only way to describe my life was torture. I had lost the neurological ability to fall asleep for more than 5 minutes, as I would be awoken by an electrical jolt throughout my body. My body had developed a constant internal vibratory sensation that felt like a second heartbeat, which was terrifying. I had continuous vertigo and dizziness and became extremely sensitive



to lights and sounds, along with vision impairments. I had tremors and fasciculations throughout my body. My face became numb with a constant tingling sensation. My body started to itch all over like bugs were crawling through my skin. I had an incredible amount of brain fog and confusion with short-term memory problems. On top of that, my GI issues and pain were now much worse. All I could really do was cry.”

Barry also was severely impaired with pain by several osteopaths who did not understand the dental occlusal dysfunction and how it affects cervical and cranial function. After reading Barry’s surgical reports, an MRI of his jaw and a CBCT scan, it was clear that he was going to need the intervention of an ALF-trained dentist to help stabilize and restore a physiological dental occlusion. This would support his jaw joints as the osteopathic treatments unwind the craniofacial cervical trauma. It also became clear that Barry would need two more surgeries to remove the metal plates and screws in his face. Over the next three years, Barry would be flying coast-to-coast to receive osteopathic treatments and laser treatments from me, and then seeing Dr. Bronson, DDS, in Virginia for adjustments to his ALF appliance. Barry also had a frenectomy, which allowed his tongue to have the range of motion needed to reach the palate. With each functional swallow the pressure from the palate into the base of the cranium augmented his cranial motion and allowed his body to continue to heal itself. It was a long three-year process but slowly and with a non-linear pattern, Barry’s health improved.

Barry stated: “As my swallowing function continued to integrate and my craniofacial structures released, my body transitioned itself into pure detoxification mode. Every day, my doses of binders were increasing until I was taking 2 tsp Activated Charcoal, 4 Saccharomyces capsules, and 2 Welchol capsules. In the previous 5+ years, I had barely been able to remove any toxins from my body without exacerbations. Now, in a matter of two weeks, I had removed all the mycotoxins from my body. On 1/4/2022, the lab test confirmed that I was mold-free. With a proper swallow, my TMJ continues to heal and reposition my



structure. My metabolism has been shifting back to eating more carbohydrates. I can even eat gluten without a reaction now that the toxins are removed, and my digestion has improved. I have been exercising every 1-2 days, after not being able to do any physical exertion for 5+ years.”

To this day, Barry was the most compromised and complex patient I have treated with the greatest success story. His case demonstrated how treating the craniofacial system helped restore the cranial nerve functions, open the airway, and improve the dental occlusion to help stabilize his temporomandibular and facial dysfunction. This treatment in turn simplified the process of detoxifying the mycotoxin. He was able to clear all the mold with a minimal amount of binders and no follow up antifungal treatment was needed.

The obstacles to his health needed to be identified and removed. Once the motion and health of his systems were integrated, the body was able to heal itself with less need for intervention.

Dr. A.T. Still, DO, founder of Osteopathy, stated: “Anyone can find the disease but who can find the Health?” We heal from our Health not from our Dis Ease. Thus, by restoring normal physiological motion, Adam was able to heal himself, and his body will continue to function to his optimal capacity. Thank you to Barry and Dr. Nathan for the opportunity to participate in his healing journey.

Here is a take-home message: If you or your patient is struggling to be able to quiet their nervous systems despite heroic efforts to utilize the methods that can reboot the limbic and vagus nerve system, or to take mast cell supplements, consider the possibility of craniofacial dysfunction. Dig a little deeper into the patient’s history and ask about possible birth trauma, injuries to the head and neck, and jaw dysfunction. It is possible that you may need to start their healing journey by first restoring craniosacral mobility.

