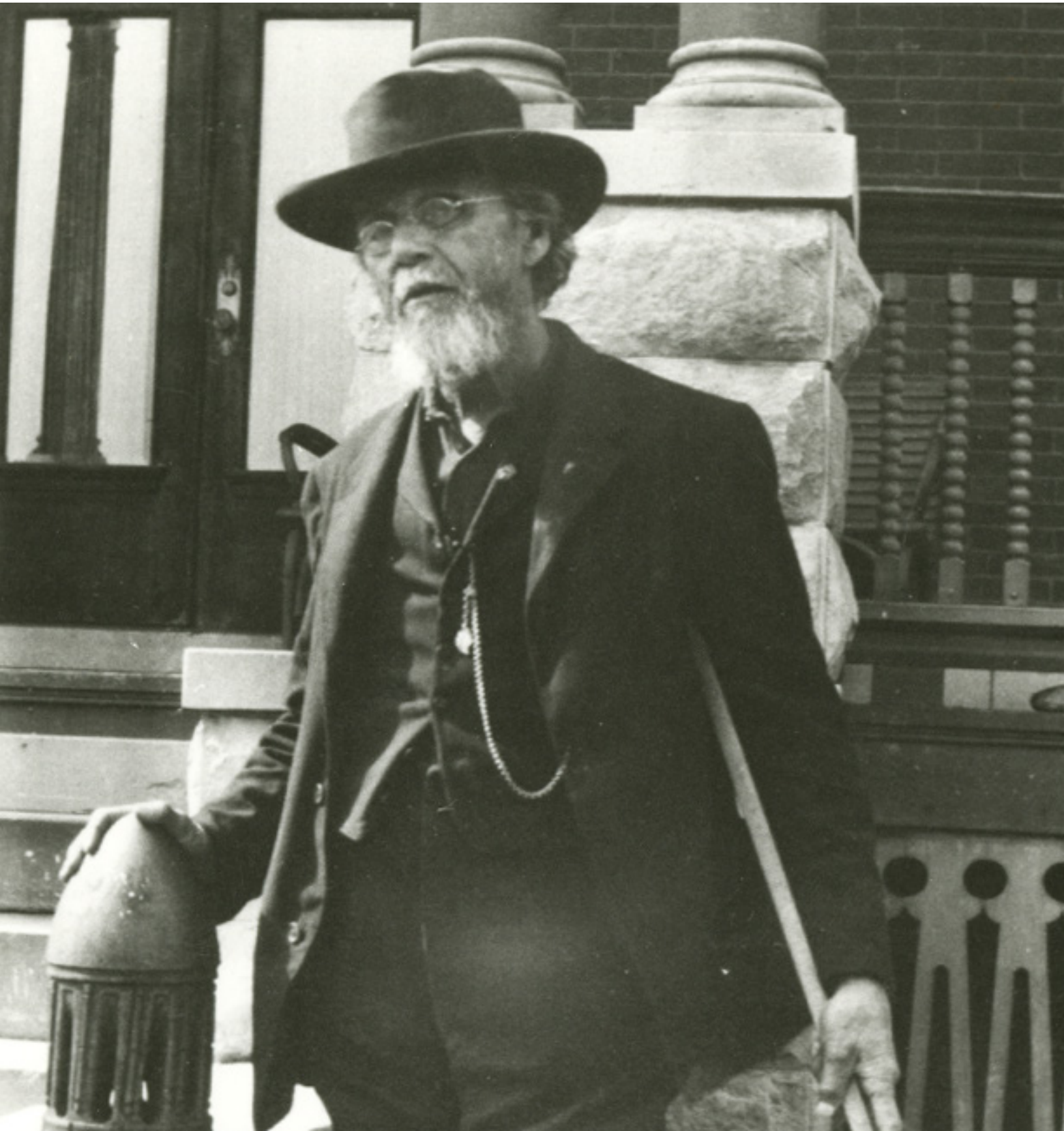


The OSTEOPATHYST

Canadian Journal of Osteopathy

Summer 2017

No. 11



The **OSTEOPATHYST**

Canadian Journal of Osteopathy

Executive Editor

Robert Johnston

Managing Editor

Adriana Sauve

Editor

Jeffrey Douglas

Designer

Jorge Rivero

Core Contributors

Samuel Jarman

Lee Jarvis

Guest Contributors

Kurt Witmer

Sheryl Crotta M

Paul McQuade

www.theosteopathyst.com

contact@theosteopathyst.com

Be involved with the journal...

Participate in open calls for submissions and profiles.

Contribute articles, reviews, interviews, photography or illustration.

Letters to the editor are welcome! Share your comments and suggestions.

Please email us at contact@theosteopathyst.com





By Robert Johnston

CLOSE TO THE BONE

The Physical Reality of Osteopathy

There is a lot of discussion in this profession about this concept of the “non-physical” in either theory or actual treatment. In theory there is little to say about the “non-physical”; indeed, if phenomena are present, then they are present regardless of circumstance. In treatment there is also little to say about the “non-physical” as, again, it is present regardless of circumstance. We may look to Dr. Still in *Philosophy and Mechanical Principles of Osteopathy* under the heading “The Material and Immaterial” when he writes:

It matters very little to man where mind, motion, and matter came from, the one place or the other. They are all in his make-up, and he is interested in keeping them all healthy. If he is a doctor, he is interested in quick cures, because his living depends on his success. The doctor does not have to furnish his patients mind, matter, or motion. His work is to keep the body adjusted so it can supply itself with brain and muscle; then mind and motion will appear and keep the laboratory full of the choicest chemicals and free from disease. Healthy organs and food are what keeps a man healthy. The doctor can aid in keeping the organs in place. This he can do if he knows the forms and functionings of the different parts of the body. If not, he is of but little use or benefit to the sick. (p. 117)

Osteopathy, at its foundation, has the central concept of structure and function integrated on all levels. Considering the previous statement it should be clear that, no matter what is said surrounding the profession, anything that occurs between the Operator and the patient addresses both aspects. What is visible to any onlooker is that those who speak about treating the “non-physical” do so with hands on a patient. The moment hands are on a patient there is a physical interface. The reality of the physical interface aside, it is incumbent upon any professional who believes structure and function are wholly integrated to show clearly that a non-physical treatment has a demonstrable result on the physical plane. After all, these planes are interrelated. For example, if a patient presents a motion dysfunction, their only desire is alleviation of the ailment. If we are truly to take care of the patient, we need to do something about their problem and, regardless of whether

we claim to treat the physical or non-physical, there should be a physically, verifiable result.

The “non-physical” in Osteopathy appears to be an easy place to work from as, in treatment, it rarely displays a provable result; however, the Operator is able to obfuscate a theory that is so opaque it may not be disproven. What seems to happen is that those who claim to treat the “non-physical” create a verbal and conceptual stalemate through circumlocution. Osteopathy is not in need of theories that stalemate conversations, Osteopathy is in need of provable results that anyone, regardless of background, would agree upon. We are not in need of more theoretical discussions that create expansive vocabularies that all point to physical treatment of the patient. An Operator is not able to choose a treatment based on a theoretical model prior to assessing a patient; a treatment is only effective if it is driven by the real dynamic motion present (or not present) based on all tissues. An Operator is only effective if he or she assesses a patient and treats the palpable reality. The patient’s tissues dictate the treatment through palpation. We as a profession should stop living in the grey areas and abandon our theoretical discussions in favor of addressing the patient effectively. We need to prove our work by the results that revolve around Osteopathy’s central tenets: structure, function, and their interrelation on all levels. We need to show it on the table. Are there times when a patient’s structural elements are objectively moving well and they have symptoms or other dysfunctions? Yes. Our job in Osteopathy is not to treat areas for which we lack the appropriate training. Psychologists and counselors are better equipped to deal clinically with the mind. Emergent care is best left to physicians. Osteopathy addresses health by ensuring that all parts are capable of functioning. Remember, though, that the patient is the other component of the treatment, as there are things outside of the ability of the practitioner of which the patient is in control.

If the theories around the “non-physical” are unquestionably demonstrable on a table, then let us see it. If they are not, then let us move on with improving our capacity to pay attention to the needs of the patient in order to deliver appropriate treatment. Let us improve the ability to provide provable results. Do it on the table or don’t talk about it.

AN OSTEOPATHIC PERSPECTIVE ON CYSTITIS



By Paul McQuade,
BSc., Ost., M.ed.

Cystitis is inflammation of the bladder and is more commonly seen in females. Typical symptoms are pain when passing urine (dysuria) and the frequent passing of urine (polyuria). Females may also have pain in their lower abdomen, blood in their urine (hematuria) and a high temperature accompanied with a fever. The urine may also become cloudy and may become smelly. It is estimated that half of all women experience at least one episode of cystitis in their lifetime and a third of women will suffer by the age of 24.

Research indicates that the most common cause of cystitis is bacteria that comes from the female's own bowel. Some bacteria found around the anus after passing a stool can sometimes travel to the urethra and into the bladder. Some bacteria thrive in urine and multiply quickly to cause infection. Although antibiotics may clear the symptoms, our osteopathic curiosity should be asking:

"Why does the body frequently struggle to overcome this all-too-common fight?" Moreover, what is it about the structure that permits this particular and very common dysfunction?

The bladder is a muscular sac with two ureters which pass urine from the left and right kidneys into the bladder, and one urethra on the inferior surface. These three orifices make up an area of the bladder called the Trigone. Parasympathetic control derives from the sacral outflow and sympathetic control from the vesical plexus, the latter of which emerges from the hypogastric plexus. Arterial supply is fed from the umbilical artery, vaginal artery and the superior and inferior vesical arteries. Venous drainage occurs in the vesical venous plexus and lymphatic drainage is directed to the internal and external iliac lymph nodes.

The urinary bladder is located in the lesser pelvis, situated just superior and posterior to the pubic bones. It is separated from the pubic symphysis by the retropubic space and lies mostly inferior to the peritoneum. It is relatively free in the extraperitoneal subcutaneous fatty tissue. When filled, it ascends into the greater pelvis in the extraperitoneal fatty tissue of the anterior abdominal wall. The urinary bladder is laterally held by the lateral vesical ligaments from the neck and the

tendinous arch of the pelvic fascia. Anteriorly, it is held by the pubovesical ligament (there are variations in males).

From an osteopathic viewpoint, there are two obvious reasons why cystitis/ bladder infections are more common in females than males. First, the female urethra is much shorter than in the male. Second, posture is a significant contributing factor (which we will explore in more detail below).

It should not come as a surprise that our viscera and NAVL are not gyroscopic. This means that an anterior rotation or posterior rotation of the pelvis will create strains relative to a neutral pelvis. Pelvic position in females can be determined by several factors. Orientation can be influenced by the centre of gravity line, muscular dominance in and around the pelvis, pregnancy, weight (petite or obese), high-heeled footwear and trauma. Perhaps the most significant influence to pelvic orientation is during the reproductive cycle in what is referred to as Lordotic Behaviour. The anterior rotation of the pelvis, associated with the wearing of high heels, accentuates the female's chest, pelvis and buttocks, placing the vagina in a posteriorly facing direction for easier copulation.

One point to recap on from above is the position of the urethra on the inferior surface of the urinary bladder. For the bladder to empty fully, the urethra must be optimally positioned. Also, there are two sphincters in the urethra at the base of the bladder- an internal sphincter under parasympathetic control and an external sphincter under sympathetic control. Neurological control aside, for any sphincter to function correctly, the structure that contains the sphincter must be in its true anatomical position. Consider what happens to the urethra when an anterior or posterior pelvic rotation exists. Will the urethra buckle or be on tension? Moreover, what happens with the internal and external sphincters during such rotations?

To conclude, the encumbering position of the urinary bladder creates an abnormal strain of the urethra and by extension, the internal and external urethral sphincters, leading to a likely cause of the bacteria presence as explained above. If the bladder is unable to fully empty due to the abnormal pelvic orientation, the consequent pooling, further exacerbated by the compromised NAVL of the urinary bladder, will enable the colonization of bacteria.



You're in **Safe hands** with the

OOA ONTARIO
OSTEOPATHIC
ASSOCIATION

The OOA is a voluntary, not for profit, professional association in Ontario that aims to establish and maintain standards for safe and effective treatment for patients.

www.ontarioosteopathy.com

CONTROL ISSUES



By Sam Jarman

Contact is control. Control is safety. When a treatment is safe both the Operator and the patient achieve a better result. The aim of this article will be to provide examples of how to create enhanced contact for increased control and safety.

Before we delve into the examples, it should be stated that proximity to the patient will strengthen the capacity for contact. Contact is not achieved simply with the Operator's hands; the Operator's body and the table are also reliable ways to facilitate contact for control and safety. The two positions that tend to be the most stable without Operator contact are supine and prone, as the patient's body has a considerable contact area with the table. Despite the discussion being based on seated and lateral recumbent positions, the *concepts* will be applicable to all positions.

To begin the discussion, we will highlight the concept of *negative space*. Negative space, in this case, is best described as the distance between the Operator and the patient where no contact is taking place. To illustrate this, the pictures below will display the negative space that exists *automatically* in both seated and lateral recumbent.

edge of the table and the patient's torso such that, without contact, the patient may move uncontrolled in that space.



It can be observed in this image that a patient who is in the middle of the table, or towards the edge closest to the anterior portion of their body, generates a large amount of negative space where said patient may move uncontrolled. It will also be noted that bridging this space requires awkward body postures as well as muscular effort.



Regardless of where the patient lays on the table, as depicted in the image above, there is an *automatic* space between the



With the seated position, as visible above, the length of the patient's femur will dictate how far back the patient will be

able to sit on the table comfortably (depending on contact with the posterior aspect of the knee/popliteal space). Automatic space is created because most patients will not have a femur long enough to allow them to sit all the way at the back edge of the table. Also observable in the image: most patient's torsos will be in the middle of the table and, as such, there is automatic space created if the Operator is working from the anterior surface of the patient. Unless the patient is at one edge of the table or the other, it is difficult to work on the patient's lateral surfaces to access the coronal plane.

Up to this point, the discussion has focussed on the automatic space produced by patients' position on the table. Attention will now be turned to strategies to bridge the automatic space, thereby improving contact and control.

If Operators choose to place their patient in lateral recumbent and work from the anterior surface of their body, then the space existing between the patient's torso and the edge of the table will not change. The only way to alter the distance between the patient's torso and the edge of the table is to move the patient on the table. In order to bridge the space between the edge of the table, the Operator should lean toward the patient and create contact on the patient's up-table side (as is illustrated below).

If the Operator chooses to treat the patient in lateral recumbent and work from the posterior surface of the patient, the most effective way to create contact/control is to have the patient move to the back edge of the table. The Operator should maintain hand contact to direct the limits of patient movement to keep them safely on the table.

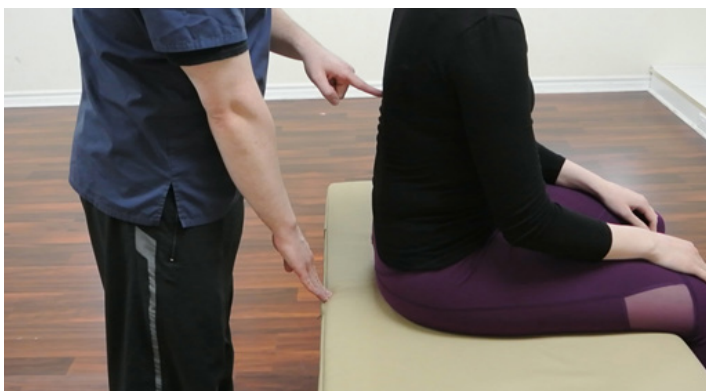
One of the related benefits of having a patient move to the back edge of the table in lateral recumbent is that the patient's thighs will not be prone to falling off the front edge of the table. Many patients who feel as though their thighs will fall off the front edge of the table will end up holding muscular tension for fear of falling forward.



If the Operator chooses to have a patient in a seated position to work from the posterior surface of the patient, then the automatic space may be bridged by the Operator leaning forward to contact the patient, followed by moving the patient in whatever other reasonable direction necessary.



The above pictures are simply an example of contact and do not represent the only way to close the gap. It should also be noted with the above picture that walking down the table toward the patient's pelvis/lower limbs will allow for more contact/control in that region.



It is somewhat visible that the Operator has leaned forward and contacted the patient's torso on the top side. It is clearly visible that the Operator has forearm contact with the patient's humerus as well as obliquely across the mid-axillary line while the hand has curled around to contact the patient's lower thoracic vertebral region. With the Operator's up-table arm contacting such a large portion of the patient's thorax, control is maintained and the Operator simply needs to lean forward with the entire body to create a posterior rotation of the patient's thorax. The challenges of working from the anterior surface of the patient are as follows:

1. *It is difficult to work through the middle or upper thoracic region even if the patient's arms are positioned differently.*
2. *It is difficult not to compress the ribs if it is not desired.*
3. *It is difficult to observe, in an accurate way, the region that the Operator is targeting.*

The above example does have its benefits and challenges; that said, the next example will illustrate the same motion from the posterior surface of the patient, with similar efficacy.



As is visible in the above images, the Operator simply leans forward to bridge the space between the back edge of the table and the patient. Regardless of what the Operator needs to do next, contact has been established. The Operator would be able to move to the left or right side of the patient to facilitate better contact on one side and leave the other free to move as necessary.

Now that the concept of bridging negative space has been described and briefly illustrated, attention will turn to choosing the type of contact to achieve an efficient result. Any hold created by the Operator has benefits and challenges; however, the aim is to choose—purposefully—a hold to suit the desired outcome. The first example discussed will be the control of a patient in lateral recumbent with the aim of creating a rotation of the thorax toward the posterior surface of the patient. The first picture displays the Operator working from the anterior surface of the patient.



With the above picture we see an example of contact on all aspects of the patient. The Operator has his torso contacting the posterior thorax/scapula-thoracic region and the up-table arm wrapping around the superior aspect of the shoulder, as well as the anterior aspect of the humerus, while also holding the elbow. The down-table hand is able to monitor at whatever level/region is required. From here the Operator is able to lean forward or backward to create rotation while also gliding the humerus/shoulder girdle superior or inferior to create leverage in the coronal plane as needed. This hold allows the Operator to engage effectively all planes in tandem while also keeping appropriate control of the patient. Compared to the previous hold, the Operator is now able to work in the middle and upper thorax more efficiently while also observing the region being treated. Although minimal, the drawback to this hold is that the mobility of the Operator may preclude them from creating enough motion to fully engage a structure as needed. In order to overcome that challenge, the Operators would simply identify the plane of motion they need to engage more deeply and position themselves accordingly. Two examples of positioning are depicted here:





As illustrated, the Operator will move directly posterior to the patient to better control the transverse plane while orienting superior to the shoulder girdle to facilitate motion from superior to inferior in the coronal plane. (Operators may reverse this action and move inferior to the elbow to create inferior to superior motion in the coronal plane.) The positive outcome: greater control of one plane is established. The negative outcome: a wider space is generated between Operator and patient. This negative space may be corrected; however, these positions improve control of one plane while sacrificing control of others.

Another way to illustrate patient proximity to establish control is to engage the coronal plane with the patient in a seated position. First, it must be noted that the Operator needs to position the patient in a manner that allows for proximity (this concept has already been illustrated), such that one side of the patient is at the edge of the table. Once the side of the patient is at the edge of the table, Operators need to consider their position with respect to the patient. The two following pictures display differing proximity to the patient:



The picture on the left depicts minimal body contact and significant negative (uncontrolled) space while the picture on the right shows full body contact and better control.

The final set of pictures demonstrate how to manoeuvre around the table so that it does not block the motion being generated. The illustration depicts a seated position; however, this concept applies to all positions. (Note: attempting to create flexion in prone is very challenging because the table is in the way.) In the pictures that follow, the patient is seated and the Operator is creating rotation:



The picture on the left shows the table obstructing the Operator from moving any farther; rotation is only available when the Operator moves his arms and body independent from one another, which will lead to fatigue. The picture on the right displays the patient at the edge of the table, which allows the Operator to walk around and create motion with his full body instead of simply his arms.

Now that examples of how to manage negative space and create control have been shown in both seated and lateral positions, let's review the simple keys to creating control and safety between an Operator and a patient.

1. ***Remove negative space between the Operator and patient whenever possible. If it is not possible to remove it completely, then minimize it and manage it as much as possible.***
2. ***Contact is control and control is safety:***
 - ***Creating as much contact with a patient as possible is often achieved through body contact from the Operator***
 - ***Broad contact is also achieved by having the patient in supine or prone (contact created by the table)***
 - ***Contact is also created by broad contact with the hands or arms of the Operator***
3. ***Clearly understand the strengths and weaknesses of the patient position and chosen hold:***
 - ***Be aware of the movements that are efficient and inefficient due to the position and hold***

The concepts of contact, control, and safety have been illustrated in a way that hopefully allows the reader to apply them in all situations. Consider if the approach and patient set-up utilized has as much contact, control, and safety as is possible. Increased contact and control between Operator and patient will mitigate physical effort, leading to greater longevity for the Operator. As always, Dig On.



Sheryl Crotta MOMSc.

UNLOCKING THE CRANIAL-CERVICAL COMPLEX FROM THE TOP DOWN

Cervical adjustment is challenging in osteopathy. When performed using the principles of osteopathy, it is very effective. The longer one works in clinical practice, the more complex lesion patterns present themselves. This seems to be a natural universal occurrence. Cervical assessment and adjustment is an ever-evolving skill that improves and deepens with study and clinical experience.

Understanding the mechanics and anatomy are the key elements that unleash one's understanding of the principles and allow for countless approaches. Rob Johnston teaches the "MAP" concept at the CAO—i.e., mechanics, anatomy and physiology—and developed the Myogon Model for osteopathic body mechanics.¹ These concepts and theories are immense springboards in developing osteopathic understanding. I find the more I work with these concepts and principles, the wider the scope of possibilities open. Be warned: the moment you think of the cervical spine (or any structure, for that matter) in isolation, you will have extinguished your flame of your osteopathic understanding. You must keep looking and searching to find cause. As you work, check in with yourself often and note how you handle the body. Ask yourself "Am I moving too quickly?" or "Am I moving too much?" or "What amount of motion is necessary for a particular structure?" The structures demand specific handling. Understanding the context of the anatomy with which you are working and the anatomical neighbourhood is key. Your osteopathic training lights the way as you palpate the structural patterns in the body, leading to successful insight that brings you closer to discovery of the causative lesioning ailing your patients. The barriers within the dysfunctional, palpable patterns are what guide you to understand virtually any lesioning in the body.

With regard to the cervical spine, it is imperative to always view this structure from a global, local and focal perspective as with all structures. The patterns that are revealed through your assessment must be analyzed and dissected with anatomical, tangible connectors in order to understand the structures and forces responsible for holding and maintaining a pattern or lesion in place. In this article, I will offer an insight that is readily available to any and all if only you look, think and feel.

Dr. Still says "DO means Dig On,"² and at the CAO I have repeatedly heard the adage "you will not find that which you do not seek." As your palpation improves, the deeper you are able to observe and feel, the greater the depth of your adjustment.

Consider the sphenobasilar joint (SBJ). William Garner Sutherland, D.O. (1873–1954), was an American osteopathic physician and an important historical figure in American osteopathic medicine whose manual techniques are still practiced today. Sutherland was the first osteopathic physician to conceptualize the "cranial concept" and teach it systematically. Respectfully, Sutherland did acknowledge Dr. Andrew Taylor Still as the developer of all osteopathy, including the cranial field.³

In this article, I invite you to consider the cervical spine as it relates to the cranium and specifically the sphenobasilar (SBJ) or sphenoccipital synchondrosis (SOS). When sorting out complex cervical lesioning, consider the following key anatomical structures/connectors that superficially frame the cervical spine and connect the shoulder girdle.

Soft Tissue

- The **sternocleidomastoid muscles** are attached anteriorly and posterolaterally on the sternum and clavicle to the mastoid process of the temporal bone.
- The **trapezius muscle, semispinalis, splenius cervicis**, attaching to the occipital bone posteriorly and to the upper T-line for trapezius and to the thoracic spine, respectively are profoundly influential connectors.
- The **medial and lateral pterygoid muscles**.

Hard Tissue

- As mentioned, the **occipital bone** and **sphenoid joint** or **sphenobasilar joint** symphysis links the upper cervical

spine with the TMJ via the pterygoid muscles. This combination of structures directly link to the upper cervical unit. How did I get there? Look at the links in the anatomy via the sphenoid bone to the occipital bone or SBJ.

- As well, these amazing pterygoid muscles link the TMJ by way of the **mandible**. The mandible connects to the **temporal bones**; also the temporal bones connect directly to the occipital bone which is the upper unit of the cervical spine.
- The temporal bones frame the occipital bone and, therefore, potentially can steer the upper cervical spine.
- The **mandible** becomes a very useful handle/lever capable of driving osteopathic change to the occipital bone and the TMJ.

Think of the potential implication of these soft and hard structure relationships. The muscle attachments of the pterygoid muscles essentially are a group of levers traversing the mandible, functioning to control the mandible and occipital bone via the sphenoid bone. Thus, these reciprocal mechanical connections have the power to significantly influence complex lesion patterns. Cervical dysfunction is then perhaps an “effect” of many of their structural influences looking from the top down.

Another important consideration is the complexity the sphenoid bone itself, possessing its many foramen, fissures, wings, and the functional location of the sphenoid bone that houses the hypothalamus and pituitary gland.

This discussion has the potential to branch into many areas of the body if you follow the anatomy. You can integrate the dynamic unit of function and understand the far-reaching global pattern extending to the cervical cranial regions.

As you are reading, I hope you are seeing reciprocal relationships and circular patterns in the anatomy that have great potential to impact the cervical, cranial, and upper shoulder girdle complexes. To fully understand what I am explaining, however, you must do the work using this osteopathic torch in real clinical practice. Looking, thinking, and feeling is believing and the pennies will drop.

Once you have recognized the possibilities of the relationships and continue using the principles—i.e., direct, indirect, balance, short lever, long lever, lever, wedge and screw, etc.—use the mind’s eye to guide you through the chains of anatomy discussed. Check your palpation, whether you are moving too much, too quickly, or even if your hands are soft.

Use the anatomy as handles to leverage your palpation and to feel and understand deeper structures. The mandible within the TMJ complex is tethered to the sphenoid bone. As you begin to connect the dots, you will see the obvious confluence of the sphenoid bone to the occipital bone via the sphenobasilar joint.

How you regard this complex, and how you use the bony structures to arrange your positioning, depends largely on how the anatomy is used as handles. Here are two examples of handles: 1) Right hand using the frontal bone via sphenoid bone “adjusting” the occipital atlantal joint by using your left hand to monitor the occipital bone. 2) Cup the mandible with your right hand (adjusting your forces to mimic the TMJ joint) while simultaneously palpating indirectly the pterygoid muscle attachments to sphenoid bone. With the left hand monitor and adjust your forces as palpated via the pterygoid, sphenoid bone, and occipital bone line of anatomy. These powerful connectors are structurally and functionally more tangible and palpable and have massive impact in treatment than what is offered in eclectic cranial models.

I hope this article will help to bring much success and excitement to your personal relationship with osteopathy. On a practical level, by looking, thinking and feeling, your osteopathic torch should shine brightly, unlocking complex and perplexing dysfunctions within the body’s dynamic system. In no way is this the only way to examine and address dysfunction in this region; it is merely another approach based on my clinical experience while utilizing osteopathic principles. Remember: the mechanics is the anatomy, is the physiology, is your MAP.⁴

¹ Johnston, Robert (Spring 2017). *The Osteopathyst: Canadian Journal of Osteopathy*. “Mechanics, Anatomy and Physiology: Understanding the Osteopathic Lesion,”

² Extract from a letter by Dr. Andrew Taylor Still, addressed to the President of the American Osteopathic Association of 1915, Portland Oregon, printed in the 1948 A.A.O. Yearbook.

³ William Sutherland : https://www.google.ca/?gws_rd=ssl# Wales, Anne L. (1990). *Teachings in the science of osteopathy*. Cambridge, MA: Rudra Press.

⁴ Johnston, Robert (Spring 2017). *The Osteopathyst: Canadian Journal Osteopathy*. Mechanics, Anatomy and physiology: Understanding the osteopathic lesion. Hamilton, CAO Press.

Jordan, Theodore (2009). Swedenborg's influence on Sutherland's “Primary Respiratory Mechanism” model in cranial osteopathy. *The International Journal of Osteopathic Medicine*, Volume 12, Issue 3, 100-105.



CAO
Canadian Academy
of Osteopathy



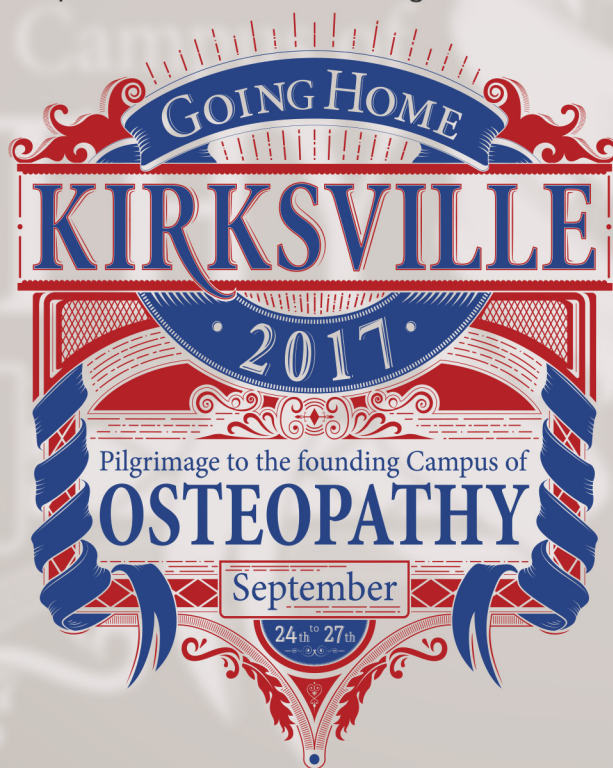
**TOGETHER WE STAND
DIVIDED WE FALL
CLASSICALLY STRONG**

KIRKSVILLE 2017

Pilgrimage to the Founding Campus of Osteopathy

Every other year the CAO, in partnership with the CICO, organizes a trip to Kirksville Missouri to visit Andrew Taylor Still University and the historic sites of Osteopathy's roots.

- Tour the campus of Andrew Taylor Still University
- Tour the Museum of Osteopathic Medicine
- Observe OMM lab instruction
- Visit the Still Gravesite and Homestead
- Opportunity to visit and treat the local Amish community
- Research time with reserved materials at the museum
- Open to CAO students and graduates



The OSTEOPATHYST

Canadian Journal of Osteopathy

Canada's professional Osteopathic Journal
representing principles-based history,
theory and treatment.



www.osteopathyst.com

SIMPLE EXAMPLES APPLYING THE PRINCIPLE OF COMPENSATION



By Lee Jarvis

Simple applications of any complex idea are always a great place to start one's understanding. Though not quite as alluring as a complicated theory, a simple application allows for a starting point of partial comprehension that leads naturally over time to the addition of greater and greater complexity. Having been a teacher for a short time now, I find it's very typical that students ask me how to learn very detailed information (preferably quickly). When I question these students in an attempt to determine what they already know I often find that a decent comprehension of the basics is lacking. It is very difficult to teach to this type of student as they have no basic framework on which to accumulate necessary details to generate a more complex understanding. At this point the student is usually attempting to memorize immense amounts of information—of which very few are capable. Even if someone was capable of memorizing what would be several large tomes (Tortora and Netter's come to mind), when asked to apply that information it spills out as haphazard trivia bits that lack any integrated or flexible understanding. To be a successful Osteopathic Manual Therapist you must have an adaptive and comprehensive understanding of the human body because the human body is adaptive and comprehensive.

For this article I want to apply the principle of compensation in the simplest manner possible: keeping the head forward and up. This application is so obvious that even the average person should be able to comprehend the concepts with little to no anatomy and physiology training. We will start with

explaining the limitations of integrated body movement. Then we will apply some very basic effects of the extrapyramidal tracts and their muscular effectors to demonstrate how spinal compensation is both inherent and obvious. Lastly, we will make examples of how these mechanical neurologic mechanisms can be used in assessment and treatment.

Let's start by examining two very simple and easy to understand examples:

1. If the neck is held immovably in a flexed position and we want to look forward as we walk, we must extend as much as possible through the thoracic spine, lumbar spine, as well as through the hips (bilaterally).
2. If my lumbar spine is stuck in rotation (likely at the thoracolumbar junction and lumbosacral junction) and we want to look with our whole body to the opposite side, we will have to (much more significantly) rotate through the neck, hips, knees, and ankles.

These are very simple examples that demonstrate that if we lack motion in one region of the body we will compensate for this loss of movement in other regions that are capable of moving in the same plane. A simpler way of saying this would be: if you can't twist to the right with your low back, you'll force your neck to twist harder and further to the right than it normally would. This is very natural and is something of which we (and

our patients) are completely unaware when it's happening. This type of compensation can be done for long periods of time without injury. However, as we force the compensatory regions to work excessively, they gradually surpass the anatomic barrier of their supporting ligaments. As these anatomic barriers are passed, lesions local to the region form (by laxity or reactive muscular contraction to stretch), aggregating an overall lesion pattern along with them. Again, as this occurs we are unaware and are likely without significant pain or visible functional loss of overall movement. By the time pain or loss of motion is noticed the patient already has numerous lesions that have deeply engrained themselves into the global pattern.

The above example was that of voluntary muscle action; however, compensation mechanically also occurs on an involuntary neurological level. Much of this neurological wiring is based around keeping the eye-line level. This is true of all creatures with two eyes because eyesight is used as a reference point against the vestibular apparatus of which there are (just like the eyes) two located in the cranium. (The entire vestibular apparatus and how it works is beyond the scope of this article. The reader should simply be reminded that it is a fluid, movement-based system that the brain uses to determine the position of the head and the direction of its movement.)

The visual apparatus is of similar complexity to the vestibular system and will, likewise, not be fully explained in this article. Notice, though, that the eyes and vestibular components (semicircular canals, utricle, and saccule) are in the same relative height and horizontal plane in the cranium. This indicates a relationship in the function of these structures—a relationship we will attempt to explain below.

Though the author was not there at the time, he feels it safe to assume that during the evolution of the first land-based animals with eyes, the constant line of the horizon gave these primitive creatures a normal visual cue against which to base judgements. With a regularly located line, we are more capable of judging the distance from something, its size, and the speed at which it might be moving. This is especially important should it be a large thing moving quickly towards us that would like to eat us. This can be said for the original quadrupedal animals as well as our current human form, especially now that we have "stood up" to see further distances. The eye-line is therefore kept level relative to the horizon along with the vestibular system. This "leveling" would have occurred long before the evolution of man to our current form; thus, this head position is involuntarily controlled.

The neurology for the regulation of eye level is carried out through two tracts in the extrapyramidal system: The medial and lateral vestibulo-spinal tracts. The extrapyramidal tracts are motor tracts that act constantly and involuntary such that we are aware only of their effects by resultant posture and muscle regulation. In the case of the vestibulo-spinal tracts the "vestibulo" portion indicates where the nerve cells originate and the "spinal" part indicates the terminal synapse point.

The medial and lateral vestibulo-spinal tracts descend to synapse on alpha and gamma motor neurons in the spinal cord. The alpha motor neuron of the spinal cord will actively create contraction in the associated muscle of that level when stimulated. The gamma motor holds/sets the resting length of the muscle, resulting in the muscle contracting sooner or later in response to the lengthening of associated muscles at that level. This means that the medial and lateral vestibulo-spinal tracts are capable of generating tone in muscle actively or increasing and decreasing its reactivity. In this case the vestibulo-spinal tracts are concerned with the postural muscles.

Extension of the spine, what keeps us in an upright position, is created by the paraspinal muscles which the medial and lateral vestibulo-spinal tracts stimulate. Because gravity is a constant on earth and the head position is slightly forward, the body falls naturally into flexion so any necessary flexion is often created by inhibition of extensor tone. More specifically, the medial tract is concerned with righting the position of the head relative to the body by synapsing as low as T3 (approximately). The lateral tract on the other hand will synapse along the whole cord and correct the position of the body relative to the head/eyeline.

These tracts keep us from looking at the ground all the time; moreover, by creating unilateral extension (with opposite side inhibition), sidebending (and rotation) can be generated. When the eyes become unlevel in the coronal plane unilateral tone can be increased to sidebend one or multiple areas of the spine, correcting the position of the eyes.

This postural and eye-line regulation is not only involuntary but a constant process as well. At all times the signals sent by the extrapyramidal tracts attempt to balance the position of the body to the eyes and vestibular apparatus. Though this is a very effective system to interfere with or limit, this mechanism requires only a lack of motion capacity in a region of the spine that would normally be capable of moving to adjust the eye-line. The moment at which we lose movement in a region of the spine, the body (much like in the first examples) will now have to force other areas that move in the same plane to work/compensate that much harder to keep the eye-line level. Any living or mechanical structure can only work outside of its normal limitations for so long before damage to its parts occurs and, just like in the first example, we will inevitably see a lesion pattern form.

I hope it's obvious to the reader at this point that Dr. Still's first principle—"The body is a dynamic unit of function"—could not be better represented in this scenario. I also hope that the assessment and treatment applications are obvious as well (we will go into greater depth below).

Our first examples showed how similarly moving areas compensate for each other. The key to this understanding is that areas that move best in the same plane of motion (and all joints have a particular plane they *prefer*) are most likely to compensate. This means that if we discover a flexion lesion

in one region of the body we should expect a reciprocal extension lesion in an area that is well-made to extend. This can save the operator time and effort as attempting to literally explore every single joint in the body is a time-consuming process.

Throughout this article we've explored the inherent capacity for the body to mechanically compensate. We can also use this same principle to make sense from the fact that the treatment of secondary lesions (resultant lesions) may result in reduction (or even the resolution) of what we perceive to be a more primary (causative) lesion. This seems counterintuitive initially because in some cases the operator may be able to decrease significantly their work or avoid any direct contact to the primary lesion area. To view this point in the opposite way: it may also explain why after previous treatment of a lesion where the operator is sure it has been corrected, it will return just as strongly by the next session. In this latter case the secondary lesions now so fully support the primary lesion that their presence necessitates the primary lesion and will re-create it with the patient's "normal" movements.

In assessment the unlevel position of the head or eyeline can also be seen as a clear sign of sickness/dysfunction. Two simple scenarios can be given to illustrate this: the acute patient who has strained his back and hobbles sideways into our office on the verge of screaming, or the chronic elderly patient whose upper torso is translated significantly to the right or left (in the coronal plane) relative to their lumbar spine. Regardless of the scenario, even the untrained inherently views asymmetry as a sign of sickness because the body will inherently aim to correct this position. Should it fail to correct the head/eyeline position, as in our examples, it means that many compensatory mechanisms have failed and therefore many parts of the body are mechanically dysfunctional.

I would also like to warn against a common interpretation that is made based on the above information, specifically about the extrapyramidal tracts. The interpretation goes like this: adjusting the cranium, OA, or AA joints only and in isolation should suffice in correcting all joints in the body below. Though we can all agree that the position of the head is very important to the balance of the body, it is only as important as every other joint or tissue. Without question we should all know and agree that when the eye-line is not horizontal, the body will adjust below to compensate, creating secondary lesions. In the initial stages before the compensating areas of the body have become damaged and lesioned, applying a treatment for the correction of the head and upper neck position will result in correction of the whole pattern. However, in only a short time compensations to an altered head position develop their own soft tissue and articular fixations that are irreducible unless directly treated. If these secondary lesions become deeply set into the tissue (becoming primary in their own right), an attempted treatment to just the head and upper neck will be temporary at best and potentially irritating to the body.



The International Institute of
Classical Osteopathy

The Global voice for Classical Osteopaths

Join the Collective

www.internationalosteopathy.com

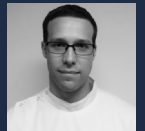


INTERVIEW

with Robert Johnston

Principal of the Canadian Academy
of Osteopathy in Hamilton

PART 1



By Kurt Witmer

KW: The first thing we will talk about is the history. We keep coming back to the history, we keep coming back to Stillian Osteopathy and the early osteopaths, but why does osteopathy place so much emphasis on the past? We don't necessarily copy it but it still guides us. We don't see as much direct influence from the past in other professions. Why is osteopathy different?

RJ: I'll say that osteopathy's history is varied. Regarding whose brother or uncle had how many children, or whether Blanche was given roses by John Martin Littlejohn or simply a set of encyclopaedias, some details are really inconsequential. When I think of osteopathic history, I think about it from a clinical perspective—that's my interest. I have no other reason to be interested in it, frankly. What I'm trying to do when I get back to that early class one and class two with Dr. Still is that I'm trying to find out how they were thinking, and how they were teaching. Then I'm comparing that to where we are today, and I'm looking at the profession from a continuum, from, let's say, 1900s to 1917. What could an osteopath do successfully in 1905 to 1910, and what do they do today, and why has that happened? Are we better clinicians or lesser clinicians? Have we really moved far away from the actual concepts and principles that define the profession or not?

For me, classical osteopathy is not about what happened in the past. It's really about what's going to happen to the future. And I think what Still was really trying to do was set up principles that we can access through history, through his writings, to give us an indication of what's really possible with osteopathy.

KW: Ok, so that really ties in well with philosophy and its importance to Still; his first two books were *Philosophy in Osteopathy* and *Philosophy and Mechanics in Osteopathy*. Interestingly, in his final book he downplayed the "philosophy" and made it resemble a standard medical text—hence why he didn't put philosophy in the title.

RJ: Yes.

KW: So, what does philosophy have to do with the profession? Why was it so important to Still?

RJ: That's a really great question. Again, philosophy for the sake of philosophy is inconsequential to me. The philosophy directs the thinking, and it nurtures roots that extend to the principles. So, for people to contemplate and pontificate over the philosophy of osteopathy—and not be able to understand those philosophical concepts in relationship to the principles that define the profession—is useless therapeutically. It just becomes another talking point, another long conversation about the philosophical views of one osteopath over the other.

Ultimately Still, in my view, was trying to flesh out a comprehensive understanding of his mind's eye. By the time he came to his last book, you could easily see that he had already been henpecked to death.

KW: He was quite angry.

RJ: Oh, he was irritated and aggravated. "This was the last

book,” he was likely thinking. “I’m done writing these books because I’ve already said what I needed to say about this profession, but you’re not listening to me.” That’s why I have these posters around the school exclaiming “Listen to me!” because he had said what he needed to say. Sometimes you don’t need to write 25 books. You just need to write the right book. And I think he had done that 2 or 3 times before *Research and Practice* came out. But again, folks just didn’t want to read between the lines and put too much into it or take anything out of it; they just couldn’t literally—and I say this often—they couldn’t understand grade-A English. This is where Still always gets unfairly criticized: “Well, you know, he wasn’t an academic, he didn’t speak in flowery terms.” Well, I think that’s his brilliance; I think the man had a whole lot to say with using simple words and simpler sentences. This is the work of a brilliant mind. And I think it’s greatly misunderstood internationally, and what I’m trying to do, to the best of my ability, is show appreciation for that language—and I’m not saying I’m perfect at it. It’s evolving every day, every week. But I really think that’s the essence of the profession. It was within him and I think it actually died with him.

KW: We had talked about getting overly philosophical and keeping in context with clinical applications, and we also mentioned some other philosophers. The big one was Friedrich Nietzsche.

RJ: Yes.

KW: And for the readers who don’t know: he was a German philosopher in the 1800s who wrote a prolific number of philosophical texts, and he is a very difficult read because he makes you work for your philosophy. The same can be said about Still: he didn’t make you an outline and put everything in a neat box; he made you work to understand and essentially make osteopathy your own. There are some interesting parallels.

RJ: Yeah, and I read Nietzsche many years ago, of course, as a youth. I will say this: the many great thinkers of the world don’t want to control you; they want to liberate you. The great thinkers want you to be liberated because they recognized that your mind is beautiful too, and they want you to flourish into something more and bigger and better than *they* are. So, I love the fact that Still wasn’t trying to control his readers, and I suppose this is where you see my agitation come out when I hear people say that they have a beginner course, an intermediate course, an advanced course. This is taking the power away from the student to self-interpret; this is saying to the student “You are not capable of taking this to the next level, you’re not capable of making the next advancement, and you’ll have to wait for my next course to come out next year.” That in many ways enslaves the practitioner. They shut down. They are waiting for the next advanced course to be offered when all they needed was to believe in themselves and use the principles correctly each and every day on that table—to watch their skills flourish. That’s my hope, wish and desire.

KW: I think a lot of these courses are trying to fast track you away from the experience you get in application.

RJ: Yes, and what’s really interesting about that, Kurt, is that they are trying to give you their experience. It’s like for me to discuss with you how I would deal with the knee. I’d like to give you all sorts of good, strong skill sets and a very well informed mind, and I’d like you to go to your office and figure out what’s best for you and how you work. That’s better for you in the long run.

KW: And again, going back to Nietzsche: he had said that many of the early philosophers works were autobiographical in nature, where they would just teach you about their experiences with philosophy, but, all in all, you’re just exchanging one person’s philosophy for another’s. You’re not really getting your own.

RJ: Right.

KW: And it’s just as you said. With treating and learning osteopathically, you can’t just implant us with your experience; you have to make us experience it for ourselves and turn it into our own.

RJ: And I think that’s why very often times you never hear me talk about my cases, in all the years you’ve been with me. It would have been very easy for me to sit around and discuss all the cases that I’ve worked on over the years. But very seldom do you hear me speak about those things because to me it’s not relevant. For me to talk to you about my successes that happened in the last year, last month, or five years ago, that doesn’t help you acquire *your* success. What I need to do with students is put them into a position where they are actually experiencing their own success and learning why they are (or are not) successful.

KW: That is very difficult to teach. Now moving back to the profession itself, we just listed some of the points on looking to the historical context of our roots from the principles and philosophical bases. Where do you think the profession is heading now, either internationally or in Canada? Dr. Paulus had mentioned some points on how it’s a dying profession from the D.O. standpoint. In your opinion, where is the profession heading?

RJ: This is probably the most pointed question you’re going to ask me through our interview today and, at the risk of sounding blunt, I need to be honest. I feel that osteopathy has a real identity crisis internationally. I think that because Still left us principles and people don’t understand them and the philosophy and the American psyche that brought this to the forefront. Context is extremely important: the sociology, the American mind, how this all transpired. I think this is part of the learning process, frankly. I think as you take the fundamental texts that Still put together and translate them into foreign languages, they lose so much of the flavor. It’s a very difficult thing, frankly, to understand unless you had the psyche of the American who can relate to the pioneering or prairie mentality. That psychology is very different. Then you can apply these principles in such a way that exhibit the entire art and craft of osteopathy. Internationally, I think it has just become another form of

N.A.V.L.

Nerve - Artery - Vein - Lymphatic



CAO
Canadian Academy
of Osteopathy

manipulative therapy. And I think there are a lot of people who would like to piggy back on other forms of treatment. For instance, if you're a physical therapist and you take a course in osteopathy you're a physical therapist and an osteopath. I think those two things have a hard time coexisting. I think if you're to devote an entire lifetime to a profession, you need to focus and not just sample stuff. You have to be fully entrenched day and night.

Even as a community, it's very different. We don't get together as a community and share ideas. We get together as a community for someone to tell us how to think. That's a very different thing as well. So, I think osteopathy has lost its way internationally. I think there are people doing it all over the world and branding it a different thing. But it's far from what those first two classes did, and it's a real departure from Dr. Still. I have spent hours and hours of late dinners in Europe among heavyweights in the field (that I won't mention in this interview), who after a couple glasses of wine say that Dr. Still was nothing more than an American illiterate. This is the man that founded the entire profession, put it on the map. For them to say that there would be no osteopathy if it wasn't for these highly trained Europeans that rode into town after the fact... Well the real truth is that they came to see Still; Still didn't go to see them. It was what Still was doing with his hands that created the interest. Without that, nobody would have stayed in Kirksville.

So, it's disheartening to hear some people sweep our founder under the carpet—the seeds of the profession—only to replace all of that glory with themselves so they take center stage. I think that's a real shame, and I see it internationally—everywhere.

KW: Well you look at Jason's lecture on William Smith, a highly-educated individual, and within four hours of talking to Still moved his life over there and signed up for a course in osteopathy. John Martin Littlejohn knew the finest European doctors and it wasn't until he met the illiterate American doctor that he got better, and then moved life over to Kirksville.

RJ: Yes and that's what people have to remember: they came for Still; Still didn't go over for them. *They* came to Kirksville. When you travel there (and I know you have), it's even today, in 2017, a long way to get there. Think about it. They had to spend a long time and journey to see this man, and when they got there, frankly, they were encaptured by Still. He was a very awe-inspiring individual; he had a set of hands that could speak to the tissue, probably like no one ever has or could. Oftentimes when they couldn't mimic Still they rebranded the terms, gave them their own name, spun it their own way and took it in their own direction because they couldn't do what Still could with his hands. There has never been an osteopath more discussed, more heralded than Dr. Still because he could make it happen.

KW: That's why they pushed for the *materia medica* in the schools, because they were lacking something.

RJ: Yes, they couldn't replicate the results so they said there must be something wrong with the program. This is why I push so

hard on the *osteopathy* and try to reduce as much *medicine* as possible, because it's so difficult to just get the osteopathy right.

KW: I can attest that you have to devote yourself to it—Jason had a nice analogy with the racoon not being able to climb two trees at once.

RJ: Yeah, that's a great analogy.

KW: But going forward with the initial question, it looks like the DOs will be here for a limited time before they completely switch over to a medical curriculum and drop the osteopathy all together.

RJ: Yeah, and I think it's going to be heartbreaking for me when the American DOs end up all the way into allopathy. I mean, unfortunately, most of it is allopathy right now. But the stalwarts hang on osteopathically—for whatever reason, I don't know, because there is so little osteopathy being done right now in osteopathic medical school. Of course, there will always be some people that are interested in it, but yes, I think osteopathy is dead in the country it was born in. For me, I take no gratitude in that; it's a crying shame. And I want to say on the record: I always believed in American osteopaths, in American osteopathy. It fits the psyche, and it's just too bad that it really never was able to do what it was intended to do. It had a few great years of wonderful success, and then it went in the wrong direction. I'm really sad about that.

KW: You put it well with European osteopathy also, where there is a huge identity crisis, where it's very hard to... you know. You get a group of physios, osteos, chiro, massage therapists all in the room, it gets very hard to differentiate. It's very eclectic. So, I guess with all these questions, is there a solution? I know that you are obviously working on it with the CAO, building osteopathy back up to the glory days. How should the profession move ahead?

RJ: Well I do want to say something about this notion of eclectic osteopathy where some feel our strength is in our diversity, and diversity needs to be better understood within its principles. Diversity for the sake of diversity only leads to confusion. But if we are diverse, that's quite all right, as long as we're diverse while utilizing the philosophy and principles set forth by the founder. So just the fact that we're diverse and collective and eclectic, doesn't necessarily mean we're special. It could just be a confusing mess of practitioners. That's a possibility. Now going forward, what we are going to do here at the CAO is keep evolving the way we teach osteopathy and, most important, we're going to continuously find a way to teach the student to think about the art and craft and science of the profession. So, we find better ways of teaching, better ways of examining and perhaps screening for students in a different way as well—because I don't think everyone is suited to being an osteopath.

KW: And that's fair. The living descendent of A.T. Still is a surgeon and he admitted that he didn't have the hands for it, and that's tough when you have a legacy to fulfill.

THE OOA COLLABORATIVE EXCHANGE REVIEW

CPR/AED TRAINING



Sheryl Crotta MOMSc.

We can chalk up another OOA Collaborative Exchange for the history books! On Saturday, May 27, 2017, a CPR /AED (Automated External Defibrillation training) workshop was offered by Adam Houston. Adam is an untapped treasure and now the OOA membership has an excel-lent instructor available to us.

Adam has had extensive training as a paramedic and is a certified Canadian Red Cross CPR & First Aid instructor. As well, he is a graduate of the Canadian Academy of Osteopathy, a mem-ber of the teaching faculty and a professional member of the OOA. If you have not had the op-portunity to meet or work with Adam, you should know he is one of the most upbeat, energetic guys with a great sense of humour! This workshop was an excellent presentation with both theo-ry and practical immediate take away applications.

The training was a 4-hour workshop that earns you a CPR/AED card certifying you for 3 years. Our session ran from 9:00 am to 1:00 pm, and it flew by because we learned by watching, listen-ing and doing. Adam made the experience enjoyable and was very informative. It was well worth the time and money spent.

The content of the workshop covered topics concerning choking, use of CPR with choking vic-tims, CPR in unresponsive victims and learning how to use the automated external defibrillation (AED) machine. He demystified the use and application of the AED device. As well, we dis-cussed important variations in handling adults, small children and infants. Finally, the workshop shared important information about contacting emergency services (such as 911) and how to protect yourself as a Good Samaritan.

I urge you to sign up and take part in the next CPR/AED training session, as it instills indispensa-ble heath profession skills offers preparation for real-world crises. This training is essential to act proficiently as a health care professional and as a conscientious citizen. It sends a strong mes-sage to your patients that you are taking their health seriously by taking steps to ensure their safety.

Personally, I have come away feeling better equipped to handle an unforeseen emergency where instant action and a cool head are required. I would highly recommend this workshop to all OOA members. Please look out for the next CPR/AED Collaborative Exchange and sign up!

MATTER MOTION MIND



CAO
Canadian Academy
of Osteopathy

LEADER

in the Theory and Application of
CLASSICAL OSTEOPATHY

Our 4 year program is offered in a modified attendance format so students can continue to work while they learn.

GO BEYOND MEMORIZED TECHNIQUES!

At the CAO we teach beyond the basics! We look deeper into cranial, visceral, muscle energy, facilitated positional release and a multitude of other approaches to teach students the PRINCIPLES that govern treatment. This makes for exceptional outcomes for our grads and their patients.

SMALL CLASS SIZES

We keep class sizes small to guarantee individual attention & personal support.

EXPERIENCE
the **CAO** for yourself

Sit in on actual classes, meet staff, students and attend an info session.

CONTACT US TO REGISTER

studentservices@canadianosteopathy.ca
www.canadianosteopathy.ca

66 Ottawa Street N. Hamilton, ON. L8H 3Z1

(905) 312-9898



PROFESSIONAL RECOGNITION

Graduates receive the highly coveted M. OMSc designation (Master in Practice diploma of Osteopathic Manipulative Sciences) and get direct entry into Ontario's premiere professional association, the OOA (Ontario Osteopathic Association) which is recognized across the board by the insurance industry.

COMPREHENSIVE CLINICAL TRAINING

Our Not-for-Profit Student Clinic gives back to the community while providing students with an in-depth clinical experience unmatched elsewhere in Canada.

Come to our next
**OPEN
VISIT DAY!**



Follow us
on Twitter



Like us on
Facebook