

In the second of an evolving series, this article will explore a few of the many elements of anatomy and physiology that are fundamental to the proposed paradigm of "working from the inside-out".

The 1st article postulated 3 core elements which assist the healing process:

- a. enhancing the circulation of bodily fluids in all of its forms is central to activating the body's self-corrective capacities,
- b. normalizing the visceral suspension is a first step to the inherent hierarchy of how the body discharges its tensions,
- c. healing revolves around, "who gets the blood."

Now we will look more closely at a short list of "what, where, and how, and will lightly touch the deeper subject of "why".

The centerpiece of this paradigm is simply to work with "how" the body maintains itself physiologically and proprioceptively at the same time. Most biomechanical models suggest that it is the contracture of the extrinsic musculature in its efforts to maintain posture within the field of gravity which constricts vascular circulation. However, it is also accurate that much of what throws the proprioceptive balance off in the first place is the result of how the body discharges visceral tension into the intrinsic musculature which then affects the kinetic chain of the joints. This places a demand on the extrinsic musculature to contract in order to protect individual joints and the overall "balance" of an individual. It is a "both/and" scenario. It is complex. And, with further exploration, it will become more clear.

A simple anatomical reality is often overlooked in our work as Massage Therapists. The human body has three great cavities that are designed to assist the movement of fluids and support the upright carriage of our human structure based on the pressure differences between them;

1. the abdominal-pelvic
2. the thorax
3. the cranium.

According to Dr. Barral, the developer of the Visceral Manipulation approach, the pressure of the thoracic cavity in a healthy system is "negative" in relation to the more positive pressures within abdominal-pelvic and cranial cavities. This negative pressure also acts like a helium balloon to support our posture in the field of gravity(1).

This difference in the pressure relationships between the cavities is "how" the efficiency of the low pressure venous & lymphatic systems is normally maintained. Let us remember that fluid moves from an area of greater concentration to an area of lesser concentration, naturally. Thus, as one assists the body to re-establish the negative pressure within the thoracic cavity it allows for an equalization of pressures between the cavities.

How does one tell if the thoracic pressure has become more positive with a client on your massage

table ? Simple palpation and soft compression of the thorax will readily indicate to you the degree of positive pressure. The less flexible the thorax, the more positive the pressure and, by inference, the slower the flow of venous & lymph return.

Within the body's three great cavities are four visceral sacs:

1. the meninges which envelop the brain and spinal cord
2. the pleurae which envelop the lungs
3. the pericardium which envelops the heart and is embryologically attached to the diaphragm muscle
4. the peritoneum which contains many of the abdominal/pelvic organs.

Each of these sacs are related to physiological waves of expansion and contraction which are crucial to normal fluid circulation. Their rhythms support the healing process and maintain normal homeostatic regulation:

1. the craniosacral rhythm circulation of cerebro-spinal fluid
2. the respiratory rhythm supports normal venous/lymphatic return
3. the cardiac rhythm pumps arterial blood
- 4 the rhythms of peristalsis assists digestion & elimination

All of these rhythms are influenced by the pressure within the cavities, sacs, and by the pressure of the tubes within the sacs and by the pressure within those tubes which pass "between" the sacs and cavities. Anatomically, this adds emphasis to the tone & length of the esophagus as it is the only connecting tube between the cranial vault, the thoracic cavity, and the abdominal/pelvic cavity. It also offers a release valve to the pressures which often build up within the alimentary canal in addition to the anus at the lower end.

These rhythms are homeostatically regulated between the two divisions of the Autonomic Nervous System: the parasympathetic outflow of the vagus and pelvic splanchnic nerves and the sympathetic nerves exiting from T1 - L2 of the spinal cord. It is the "flexibility" between these two divisions which regulates "who gets the blood" and thereby the oxygen and nutrients needed to support the healing process(2).

It is postulated that equalization of the pressures between the great cavities, their sacs, and tubes creates a cascade within the central vascular tree of the body allowing for the re-allocation of resources via the blood reaching tissues which have been starved and a subsequent biomechanical re-distribution of strain. This is a proposed definition of how the body's self -corrective capacities really work.

How does this pressure in the tubes, sacs, and cavities build in the first place ? It is the result of soft tissue contraction of the sacs and tubes of the viscera that lessens the space for the liquids & gases within them. This internal contraction pressurizes the contents. When this pressure is unable to equalize, it builds. The building of pressure creates more soft tissue tension. The cycle repeats again & again. The body attempts to distribute these tensions both: directly & reflexively.

The theorized direct method was described in the first article of this series. Briefly, visceral tensions build, then spill over into the intrinsic musculature, which then pull on the osseous system until a dysfunction of motion is created affecting joint range of motion. This both releases some of the internal pressure, but also stimulates the extrinsic musculature to contract to protect the joints from further displacement. Eventually one's posture and sense of balance is also affected.

The reflexive method involves the distribution of tensions & strain through more generalized viscerosomatic reflex arcs. These relate to both segmental levels of the spinal cord, and to regional areas which have come to be recognized by surgeons as indicators of acute organ pathology.

What I've come to realize is that the body is organized to use the joints of the axial & appendicular skeleton in a very similar fashion to an electrical circuit-breaker system in a more modern home. Organ correlation to segmental levels of the spinal cord are referred to as spinal correspondences and are "maps" to the work of Chiropractors and those Osteopaths who manipulate the joints.

An example of a regional reflex area is the right shoulder/scapula that is typically associated with liver/gall bladder congestion, stasis, and disease. This and other regional reflex areas are referenced in most medical textbooks but are more commonly found, and their relevance more usefully described, in surgical references(3).

The paradigm of "working from the inside-out" suggests that as Massage Therapists, we need to learn how to equalize the pressures within the tubes, sacs, & cavities of the body as a first step to assisting our clients. Additionally, knowledge of the aforementioned spinal correspondences & regional reflex areas can be invaluable for making timely & appropriate referral of our clients to medical care from the onset of working with them, or when they are not making progress.

Competent Massage Therapy of any orientation will assist stress-induced states of congestion to dissipate with a lessening or disappearance of the initial symptoms. When this doesn't occur, it is our ethical responsibility to encourage medical evaluation. Plus, a "clean bill of health" from visit to a physician can be invaluable to the mental health of a client who fears something is amiss.

Stress related problems follow the progression offered in the first article; adaptation, compensation/substitution, injury/illness, degeneration/disease. Trauma and the accretion of trauma, simply speeds one along the continuum. It is common for a client to have all the relevant medical tests and return for further bodywork as what is brewing within them has not reached the tipping point of diagnostic pathology.

Now to lightly touch the question of "why" does stress affect some people more than others and why it affects some in particular areas, while others in totally different ways?

As humans, we assign meaning to our experiences in life. We develop a complex array of positive & negative anticipations to events. We live in the models of our mind more than in the present time experience of life unfolding moment by moment. This is the arena of consciousness, the most powerful tool for change & evolution for ourselves & our species.

My experience professionally & personally reflects an additional existential theorem as well: our bodies are our vehicles for the development of consciousness, the growth of our soul & spirit, and the integration between our personality & spirit. Our bodies are where the action is

happening. It embodies our confusions & terrors, our willingness & readiness for change. The body really does reflect a map of consciousness(4).

In future articles I will delve more into the realms of touch & consciousness as well as additional anatomy & physiological factors which have led me to so ardently encourage that we shift our therapeutic perception to "working from the inside-out". For now, suffice it to remind us all that touch bridges time & space and is the vehicle for re-modeling our inner landscape of attitudes and beliefs and behavior.

For those of you who are new to the profession much of this may have been more than a mouthful, or simply tedious reading, yet it is what we are challenged to hold in our work, and there is more. It has taken years of concentrated experience & study across many disciplines to tease apart the foundational elements of anatomy & physiology to make sense of how the gestalt of the body works in relation to its dance with the psyche.

This paradigm of "working from the inside-out" is only the springboard for many connections which are to come in future years. These basics, and others to follow, have consistently shown themselves to be fundamental to working with clients, especially those with chronic problems.

Our real challenge is to expand our perception broadly to include additional dimensions & to nurture our quality of touch to assist our clients to integrate themselves across the many levels of human consciousness.

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