Spinal Reflex Therapy – Approaching Soft Tissue from the Inside-Out – Part 1

Interest and demand for the health benefits of soft tissue therapeutics has greatly increased over the past ten years. As a result, there is now greater pressure on massage therapists to find more effective strategies in soft tissue management that will provide clients with consistent and measurable gains within each therapeutic session.

As busy professionals, we are often tempted to treat the area of pain and discomfort in the client as the entire focal point of the problem. Site-specific focus or pain focus is a premise that has become obsolete. It can be misleading, frustrating and often impairs our understanding of the human body. Even direct injury will often explode into a diverse array of reactions leading to persistent or recurrent complaints that arise from downstream reactions to the primary driver, or problem.

The spine is a kinetic chain that functions as a floating lever from which all limbs and appendages move freely. It is approximately the length of your femur and tibia/fibula, yet it has roughly seventy-five as opposed to five joint structures in that same distance. If this chain or lever is strong and dynamically stable, motion is efficient and pain free. If you activate a little known defensive reflex at any one of those seventy-five levels of the spine, the epicenter of a positive functional cascade of necessary contractions and movements occurs and is called a “spondylogenic reflex”.

If the chain is weak or possesses focal instability for any one of a number of reasons, motion becomes inefficient and pain and dysfunction will follow as that same epicenter, or spondylogenic reflex now becomes a negative cascade of progressive neuro-mechanical and soft tissue reactions. We define this state as a “spondylogenic reflex syndrome” or “SRS”. An SRS is the result of an unstable facet joint at a specific level and on a specific side of the spine. Unfortunately, instability in these joints is common and frequently driven by the lack of developmental strength, modern lifestyles, poor posture and ergonomics, overstretch and injuries. As we neglect to engage in adequate daily physical activity to develop or maintain strength in this system, SRS activation becomes more prevalent and worsens.

THE SRS EXPOSED
An SRS is a normal physical defense response at its best. This “withdraw reflex” originating from the spine is a response to an unseen or unheard stimulus occurring behind you. It will usually activate and then dissipate on its own if the threat subsides without injury to the spine or posterior side of the body. An example of this reflex requires the reader to imagine having ice-cold water thrown on their back. You did not smell, hear, or see it coming as the skin on your back felt the sudden cold. The SRS pathway activated and contracted a large number of muscles in a specific and automated pattern that caused you to jump up and twist to push the irritant away as you identified who or what threw the ice cold water on your back. If I have one-hundred, or seven-billion people experiencing the same stimulus, they will all contract the same pattern of musculature. I now have a pattern that is dependable, reproducible and predictable. What would happen if that
reactive process was “stuck-on” and the signal continued to command muscle contractions below the conscious level?

**How Do We Know This?**
Although SRS’s have been researched since the 1939, our health care system has neglected to address the cascade of dysfunction caused by this reflex. Why? During the period Kelligren, Wyke, Maine, and Sutter conducted studies validating the presence of the SRS, there was no system or protocols in place to identify or treat the clinical manifestation associated with this reflex. I have been researching spondylogenic reflexes and their potential for pathology for over 20 years and was able to develop an effective soft tissue application that interrupts and eliminates the aberrant reflexive activity. Spinal Reflex Therapy (SRT) is a profoundly effective clinical strategy for addressing this “stuck-on” reflex. Studies have verified that addressing the SRS and interrupting the chronic reflexive signal with Spinal Reflex Therapy allows the client to experience astonishing gains in strength, range of motion, power and stress reduction.

SRT is different from popular soft tissue techniques and is not a variation, a re-invention or blending of various other systems of assessment or techniques. It is unique and is universal to various professions. However, the procedures are distinctly complimentary to most techniques you may currently be practicing. It is a novel avenue to achieving successful therapeutic outcomes.

**Unraveling the SRS Mystery**
If an active SRS becomes chronically activated or stuck-on, it will produce a pre-determined pattern of shortened muscle fibers within multiple regions of the spine and extremities. These fibers will contract 24 hours a day, 7 days per week; indefinitely until interrupted. Why would a “stuck-on” SRS be a source of dysfunction? Imagine as the doctor that I keep tapping your patellar deep tendon reflex continuously without allowing your quadriceps to relax. What would happen to the muscle fibers? Would they fatigue? Would they develop trigger points from prolonged overload and metabolic fatigue? Would the overload stress the tendon attachment at the bone create tendonitis? Would the imbalance in local muscle tension offset the tracking within the patella and adjacent knee structures? Would it result in fibrotic and degenerative muscle, tendon, ligament and joint changes over time? Would the chronically tight muscle and tendon fibers produce edema? Would the client feel acute and chronic pain from various tissues at various stages of this process? The answer to all of these questions is a definitive YES.

An SRS is neither triggered nor mediated by the client’s brain. A person cannot feel an SRS, they can only feel the cascade of reactions that follow in the form of stiffness, tight muscles, restricted range of motion, joint stress, edema, numbness, tingling, ache, burning, trigger point activation, myofascial dysfunction and referred or radiating pain and weakness through the muscles, tendons and joints. Because an SRS is a reflex, you are hard wired and it is predictable, dependable and reproducible. If you can identify which vertebral facet joint initiated the SRS, you can reduce it with a dependable strategy. If you can reduce an active SRS, the body will function far better and the client will feel significant reductions in pain and dysfunction. Imagine how effective therapy can be if you can identify the active soft tissue patterns and determine your approach before you palpate. The withdrawal reflex (SRS) is that dependable.
The Trained Massage Therapist is Key

Now imagine a facet joint is chronically unstable, the joint’s capsular ligaments are torn or overstretched and edematous and the SRS is stuck on (SRS). In essence, the cascade of reactions starts with the unstable facet irritating nerves of the capsular ligament that feed directly into the spinal cord. These nerves activate or shorten predetermined sets of muscle fibers throughout the torso and extremities of the body (reflex activity). These are the same fibers you will feel as tonic when palpating your client throughout a session (taught fibers). As these shortened fibers compress and jam various other joints of the spine they will produce prolonged nerve root compression in the form of reactive edema, further leading to increasing sensory and motor nerve disruption of both muscle and visceral pathways. Larger muscle groups of the neck, torso, pelvis and the extremities will shorten in response through reciprocal facilitation and inhibition (agonist/antagonist). The resulting steady increase in tone throughout the body, followed by progressive fatigue in those “over-activated” muscle groups, will produce an imbalance in the compartments that control related joint tracking. This causes further angular tissue loading and general compression, irritation, edema and wear to various tendons, ligaments and joints throughout the spine and extremities. This is the SRS cascade of pain and dysfunction.

The therapist is continually palpating these taught fibers, edematous and tender tissues, knots, myofascial trigger points and fibrotic tissues. In that each of these is a progressive reaction produced by the continuous nerve activity of the SRS, it is difficult and frustrating to locate or comprehend the full extent of involvement. Most soft tissue techniques cannot locate or strategically target an SRS profile effectively; however, the trained Massage Therapist is a key provider in addressing and managing the SRS as the most prevalent causative mechanism for soft tissue pain and dysfunction.

SRT: The Solution to the SRS Cascade

The SRS is the most prevalent cause of pain and dysfunction in the neuro-musculo-skeletal system. Muscle is nerve dependent and if we were to disconnect the nerve input, the muscle could not shorten unless in a state of chemical toxicity or disease. The concept that a simple focal point of instability (facet) in the kinetic chain (spine) can create such a wide array of soft tissue contractures with so much pain and suffering is both profound and utterly staggering. It is amazing that we have missed this key element in our client’s dysfunction, health and performance profile for so long. As a front-side procedure, if you can safely and effectively turn off the background neurology (SRS) that drives 90% of unwanted muscle activity, you can liberate your client from the grip of this pathological entity and grossly improve the effectiveness of your current techniques.

Spinal Reflex Therapy (SRT) is an assessment and therapeutic system that addresses the demands of this problem head-on. Rooted in research originating over eighty years ago and developed over the past
20 years through scientific literature, clinical evidence and training in the soft tissue field; the SRT trained massage therapist is able to profoundly affect and direct changes in local and remote tissue, physiology, neurology and endogenous pain neuropharmacology safely and effectively. SRT is easy on the client and the therapist and does not deviate from scope of practice guidelines. In essence, SRT can easily be incorporated into your practice and it will bring predictability, dependability, reproducibility and measurable outcomes in a manner rarely seen in most other branches of physical health care.

Using ProScan Unit / Steady pressure at 45 degrees

BIO:

Dr. Frank Jarrell, D.C. is the developer of Spinal Reflex Therapy and founder of Spinal Reflex Institute International, LLC. He educates and consults on SRT, SRA and 5MinuteBack Therapeutic Systems, unresolved cases, and SRT Corporate Wellness in Europe, Australia and the United States. Jennifer Sovine – to come

Jennifer Sovine, LMT, PTA completed her massage training at Northern Virginia Community College in Woodbridge, Virginia and has been practicing massage since 2005. Prior to her profession in massage Jennifer earned an associate degree in physical therapy from NOVA. Jennifer is an SRT Certified Professional Provider and Spinal Reflex Therapy Instructor.

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