In a previous article, Dr Frank Jarrell detailed the science of the ASR mechanism. In this article, he includes a brief explanation of SRA Attachment Point Therapy, a concise definition of case studies with an Australian positional statement, a motivational section to strive for improved outcomes and case examples using SRA APT.

### Spinal Reflexes and Muscle Contractures

Spinal Reflex Analysis (SRA) Attachment Point Therapy is an effective evidence-based approach for identifying and treating the overly activated spondylogenic reflex through soft tissue procedures. It is an assessment and therapeutic system that places great emphasis on improving client outcomes. Spondylo (spine) and genic (origin) by definition implies that a spondylogenic reflex is originating directly from the spine and is activating skeletal muscle contractures as opposed to originating from non-spinal structures such as the tendons or ligaments of the peripheral joints. (See end of article for additional information and support resources)

As a procedure, Spinal Reflex Analysis is unique in its fundamentals and systematic strategy for addressing this prevalent problem in soft tissue dysfunction. Originating in 1993 and developing into the highly effective system we see today, SRA is built on over 18 years of clinical application, field research on professional athletes and sports teams and research at the collegiate level. The soft tissue treatment technique of SRA Attachment Point Therapy was developed as a means to identify and reduce this pathological state of the unstable facet joint so readily found in today's lifestyles and health conditions.

The therapy is an effective soft tissue treatment protocols available to the massage profession for outcome enhancement. It is not a substitute, but rather it is an easy to learn complement to most current techniques rendering them more effective. SRA APT may also be used as a stand-alone technique in soft tissue therapy.

The primary benefit in the Spinal Reflex Analysis protocol is the rapid identification of the spondylogenic reflex syndrome and the application of SRA Attachment Point Therapy to reduce the massive soft tissue reactions induced by this reflexive reaction.

SRA Certification is a three-step educational program beginning with the history, development, science and application of the SRA principles and core procedures. Once learned, the SRA APT Basic Program will allow you to integrate the procedure immediately into your practice. The SRA APT procedure includes a two-step identification approach that leads directly into the third step, or treatment phase utilising SRA Attachment Point Therapy charts.

After completing the materials and written tests, the therapist will receive a Basic APT Certificate of Completion. The program progresses to the Advanced Course material followed by hands-on training and testing.

### SRA Attachment Point Therapy and Case Outcomes

Case outcomes or the ability to manage the client's progress with a high degree of predictability, dependability and reproducibility is a critical element of any professional care plan. There are many variables that affect treatment outcomes and many of those factors are unduly placed on the client's lack of compliance and complicating factors.

Some of the greatest limiting factors in case outcomes include inadequate techniques and strategies to systematically reduce the greatest number of variables in the shortest period of recovery time. In essence, effective outcomes are determined by both sides of the client/therapist relationship. It is important to stress that this does not imply that current strategies in soft tissue therapy are not effective; only that a...
stronger push for evidence-based and/or clinically reproducible strategies and paradigms are needed to raise the standard in outcome based care.

If we are waiting for all therapeutic procedures to be entirely evidence-based or proven through randomised controlled trials, progress will slow to a snail’s pace. The current state of science is incapable of proving that many procedures in healthcare can be fully justified. Examples abound, including the substantiation of specific pharmaceutical based therapies used today that hinge entirely upon statistically small gains in effectiveness that we continue to rely heavily upon until a better solution is available.

A randomised controlled trial is not always necessary to recommend a specific therapeutic intervention; however, good science is important to establish a standard of probability. As such, I am a strong proponent of evidence-based procedures, but I do not adhere to the mindset that all procedures can be, or must be proven beyond the shadow of a doubt. Clinical experience disputes using this approach exclusively. However, the opposing risk is to blindly apply a procedure without discretion or evidence because we are simply told it is effective.

Indeed, randomised controlled trials can be used to construe ineffectiveness when in fact the science may not be advanced enough to determine adequate evidence either way. My favorite analogy for this is that of attempting to prove that parachutes save lives. There is plenty of evidence inferring that a parachute may have saved a life or lives, however in that there has never been randomised controlled trials of subjects jumping out of a moving airplane without a parachute, you cannot statistically prove that parachutes do in fact save lives. The current level of acceptance in this procedure is implied through inference and hardly meets the absolute golden standard of the scientific method. Yet, when jumping out of an airplane, I would happily go with the flow on this one. In support of evidence-based procedures in soft tissue therapy there needs to be some acceptable degree of rational, reproducibility and evidence that a procedure will show a higher probability of affecting a predictable chosen therapeutic response in the client in order to steer the public toward a more favorable net response to care.

Hence, the balance of science and art are an integral part of any outcome based care strategy. Yet, we continue to see extremes in treatment plans and gross violations of sound rational with mixed hidden agendas in favor of the care giver. A prime example of this being a US case in physical therapy I handled whereby the patient was seen one hundred and four times in a one year period without evidence of improved outcomes or functional gains. Re-evaluation resulted in notable progress in as little as two weeks of combined SRA soft tissue and manipulative therapy (Note: Dr Jarrell is a qualified chiropractor).

These forms of abuse and overutilisation drive current trends on the importance of improving case outcomes as illustrated in the following changes in oversight policy. According to the 12th Case Management Society of Australia Conference (June 2009), the Interim Standards of Practice adopted the Case Management Society of America’s definition of case management to assist with international communication and comparisons. “Case management is defined as a collaborative process of assessment, planning, facilitation and advocacy for options and services to meet an individual’s health needs through communication and available resources to promote quality cost effective outcomes. The underpinnings of case management are individualised service delivery based on comprehensive assessment that is used to develop a case or service plan for the purpose of a specified and desired outcome that is client rather than organisationally driven.”

Outcomes are critical to your future. It is the long term basis for increased credibility, referrals and a stable income. By continually supporting and being involved in your local and national associations you can actively determine your professional future as it relates to your peers, other healthcare providers and the healthcare system as a whole. As professionals you may continue to increase your case outcomes by continuing to raise your standards voluntarily and by seeking greater mastery and expansion of your skill sets under your scope of practice guidelines.

All professions need to embrace discovery, evidence, technology, growth and real experience to dispel the myths and superstition of what works and what does not, what heals and what we hope will heal, what represents the heart and science of the profession and what fragments it into competing factions. These are elements that are critical to our personal and professional success and we must do this without losing heart and soul, without losing identity and the very basic element of power and difference that I as physician and you as a therapist inherently possess … the power of the human touch, and with it the desire and the passion to heal another human being.

Balancing of the elements: science and the heart, professionalism and humility, technology and touch … who you were, who you are and who you wish to become as a professional healthcare provider, even
changing your identity against tomorrow’s needs; each element should reflect your dream, your discoveries, your accomplishments, your passions and your compassion for the most important people in this process ... your client, yourself and your colleagues. Improving outcomes reflects your unending desire to affect the client in a positive manner.

And it is through shared case outcomes that professional collaboration occurs naturally and over time will build long-lasting and productive professional and client relationships. Referral alone is not a collaborative effort in client care and outcomes. You must realise and claim your joint role in client management and realise that outcomes are of great importance to the overall benefit and progress of the client. The future of healthcare is moving rapidly along this trend line and your profession is recognizing and responding to this demand.

**SRA Case Studies**

**Case 1**

![Image of a human figure with marked areas on the spine and lower extremities]

**Complaint:**
Bilateral plantar fascial pain most noted at the medial posterior fascial attachment. Pain is most noted with active foot supination while standing and weight bearing, and early mornings. Occasional cervical and lumbar spine tension and stiffness.

**Profile and Related History:**
Male, 61 year old, no prior history of trauma, degenerative disease or underlying pathology. He is physically active in outdoor recreation and yoga and he is below average BMI, is a vegetarian and works at a desk throughout the day.

**Findings:**
Provocative for plantar fascitis bilaterally. Negative plain film study findings for calcaneal osteophytic formation bilaterally. Palpable taught fibers and attachment point edema (IR read) was noted for all reflexogenic shortened tissues per C6L spondylogenic reflex syndrome.

**Spinal Reflex Analysis Findings:**
Activated C6L spondylogenic reflex syndrome as determined by the SRA 30 second FLL/IP testing procedure.

**Discussion:**
C5 and C6 spondylogenic reflex syndromes exert considerable soft tissue biomechanics loading on the L3 through S2 posterior spinal structures and will produce low grade edematous or hydrostatic nerve root compression at multiple levels to varying degrees. If root compression is greatest at the lower lumbar and sacral roots, motor function and tonal control to the lower extremity will be affected. Hypertonicity of the soleus and gastroc muscles will affect plantar function and foot joint mobility and tracking.

**Case 2**

![Image of a human figure with marked areas on the spine and lower extremities]

**Subject:**
Male, 46 year old with no prior history of trauma. Notable history of bilateral degenerative joint disease of the knees with multiple recommendations for artificial knee replacement. He walks frequently and swims three times per week. He is above average BMI and operates in a high stress business environment with prolonged periods of sitting and traveling.

The primary complaint is right posterior-lateral knee pain that appears to originate

**Treatment:**
In that this was a formal case study, treatment was restricted to the local tissues at the C6 level of the spine only twice a week for six weeks. The treatment outcome was stated as 90-95% reduction in severity and frequency of the original complaint of plantar fascitis. No other central or peripheral tissues were treated during the course of study.
from the right lateral hip region and progress into the entire right lower extremity. The pain and ache is noted as migratory throughout the right lower extremity and includes the thigh, leg and foot regions. It is most notable during periods of sitting and upon rising to walk; producing a transitory ambulatory limp. Continued movement and walking relieves it and squatting reproduces the posterior-lateral knee pain.

**Objective:**
T1R spondylogenic reflex syndrome as determined by SRA two step analysis with notable secondary complicating reflexes at T3L and S1R. Restricted right knee flexion at 110 degrees with notable anterior subpatellar pain and psoas right weakness (4/5).

**Treatment:**
SRA APT alternating through the primary and secondary reflex patterns with notable reduction in pain and an increase in hip and knee mobility. Client is in need of spinal stabilisation exercises (has been non-compliant), postural re-education and a reduction in gross weight. Long term progress is highly dependent on compliance and mitigation of aggravating factors. SRA APT is primarily palliative at this stage with small gains in progress until above factors can be implemented.

**Discussion:**
T1R and T3L spondylogenic reflex syndromes exert considerable soft tissue biomechanical loading on the L3 through S2 posterior spinal structures through longissimus lumborum contractures and will produce low grade edematous or hydrostatic nerve root compression at multiple levels to varying degrees. Reflexogenic hypertonicity of the gluteal, hip flexors and knee stabilizers will affect hip and pelvic stability and function, restrict and strain sacral iliac motion and directly impact knee joint mobility and tracking.

### Case 3

**Subject:**
Female, 42 year old with no prior history of trauma. Three months onset of dizziness associated with neck discomfort and fatigue. Previous history of right shoulder...
pain and dysfunction successfully treated with corticosteroid injections (2x).

Objective:
Evaluation by neurologist, brain MR and cervical spine x-rays were “inconclusive”. Suspect ill defined vestibular dysfunction and fructose intolerance.

Re-reading of cervical spine radiographic (X-ray) imaging revealed multi level mid and lower cervical spine facet instability.

C3L spondylogenic reflex syndrome as determined by SRA two step analysis with notable secondary complicating reflexes at T3L and S1R.

Treatment:
SRA APT administered four times in association with trial cervical and upper thoracic stabilisation exercise as a means to test spinal instability as the primary cause of spondylogenic reflex syndrome activation. Recommend small portions of protein upon rising in the morning and prior to sleep as a means to stabilise blood sugar and reduce reflex activation during the sleep cycle. Treatment resulted in significant reduction in neck fatigue and discomfort, notable increase in cervical spine feelings of strength and moderate reduced dizziness within four days.

Discussion:
Multi level mid cervical spine instability is strongly associated with hypoglycemia due to core spinal muscles responding earlier to drops in glucose than larger skeletal muscles. This in turn produces a transient drop in segmental stability and an increase in spondylogenic reflex activation. The combination of SRA Attachment Point Therapy, protein in the diet and strengthening proved highly effective for a condition that was previously abandoned as untreatable pro the previous three months.

Case 4

Subject:
Male, 45 year old with no prior history of trauma. Complaint of left hip pain and dysfunction.

Objective:
Right standing hip flexion at 95 degrees, left at 80 degrees with pain and torso compensation. Psoas muscle test at 3/5 left with pain, right 5/5, gluteal minimus 3/5 left, 5/5 right, tensa fascia latta 4/4 left, 5/5 right, hamstring 3+/5 left, 5/5 right. Positive left Fabers test for acetabular lesion (irritation and edema). X-rays indicate cartilaginous degenerative changes and loss on the left and he is scheduled for hip replacement in the next 1-3 years.

S1L spondylogenic reflex syndrome as determined by SRA two step analysis.

Treatment:
SRA APT administered two times over two days. All muscle tests were retested at 5/5 bilaterally except for 4/5 for left hamstrings test. Significantly reduced Fabers, reduced torso recruitment with standing hip flexion, reduced pain and additional statements of being capable of lumbothoracic flexion to tie his shoes as a lost functional capacity prior to treatment.

Discussion:
The unstable sacral spondylogenic reflex syndrome will exert local limbo-pelvic and sacral iliac joint dysfunction and reactive L2 and L3 neuromechanical dysfunction that will intern affect neurology (motor balance) to the hip region. Reducing the SRS produces improved hip stabilisation and through balanced motor function and allows for maximal functional gains and reduced pain.

SRA Case Management Summary

In each case we can note positive provocative tests to include palpatory muscle fiber activation, tautness and/or spasms, functional restrictions in passive and active range of joint motion, muscle weakness when evaluated, pain and hyperesthesia most notably within sclerotomal patterns of distribution, and cascading large muscle fiber recruitment.

Each specific complaint and finding can be treated as separate functional problems or can be treated with a central premise as the likely causative or aggravating factor.

A critical observation is the histological and physiological response and recovery of areas, structures and function at remote sites to the spondylogenic reflex. Another hallmarks of SRA is the capacity to manage and/or mitigate peripheral or remote soft tissue, joint and nerve dysfunction from a central structure. Biomechanically this is difficult to grasp until there is sufficient understanding of the central nervous system’s role as controller in cause and effect.

For more information, research references and support visit www.sramassage.com or www.spinalreflex.org. Dr. Frank Jarrell Director – Spinal Reflex Institute, Intl. drfrankjarrell@spinalreflex.com

SRA APT is currently recognised by the Australian Association of Massage Therapists and the National Certification Board for Therapeutic Massage and Bodyworks for continuing education points or credits in Australia and the United States. SRA provider certification is currently in the application process for Canada and select European countries for 2010-2011.