Sports Kinesiology and the Superficial Back Fascial Train

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The superficial back fascial train consists of a line of fascial tissue that starts at the plantar fascia of the feet and continues along the posterior side of the body and finishes on the brow line.
This line is the original primary curve of the body. On a macro level of the body some of the first developmental movements begin to activate this extension mechanism system, which aids in the secondary curves of the cervical, the lumbar, the leg and the plantar surface of the foot.
From birth a baby begins to extend the head and neck to the reptile position for movement, and then progresses to the all fours position of the mammal. This action develops the cervical and posterior extension systems. Next, the baby begins to stand and develop the lumbar curve for spinal vertical balance and then bipedal locomotion.
The knees and feet curves begin to develop to aid in balance and are further strengthened for the locomotion.
These secondary curves of the neck, lower back, knees and feet, balance the primary curves to enable an upright posture to be attained and maintained. They also give a basis for movement in a 3 dimensional environment.
Dysfunctions in the superficial back line can lead to many different injuries and weaknesses that may perpetuate other dysfunctions in other parts of the body. Some of the more common injuries relating to the superficial back fascial train are;

- Dropped arches of the feet – medial/inversion of the feet
- Stress fractures of the feet – micro fracture in bone that results from repetitive physical loading below the single cycle failure threshold
- Plantar fasciitis – overuse condition of the plantar fascia
- Achilles' tendonitis – may contain inflammatory edema or scarring, irritation of the Achilles' tendon
- Compartment syndrome – intracompartment pressure is raised by exercise and may cause local muscle swelling. An accumulation of fluid in the interstitial spaces. The fascia prevents muscular expansion, impairs the blood supply and causes pain with exertion.
- Calf tightness
- Hamstring strains, tears, weakness, and issues
- Sacral pain and instability
- Sciatica – sciatic nerve entrapment
- Lower back pain, stiffness, reduced movement
- Mid and upper back pain and problems

- Neck pain, lack of movement
- Head aches/migraines due to altered spinal and muscular mechanics
- Vision problems due to altered spinal and muscular mechanics
- Shoulder problems, protraction of the shoulder and alteration of the rotation mechanics of the shoulder girdle and Humerus.
- Thoracic outlet syndrome - compression of the neurovascular structures emanating from the neck to the axilla through the thoracic outlet
- Forward head position
- Respiratory problems due to decreased sterno-costal angle and compression of the thorax and decrease in mechanical respiratory function

Sports Kinesiology (SK) can be used to dramatic effect to improve many of these symptoms and injuries.
Firstly, orthopedic assessments can be performed to objectively evaluate the difference before and after treatment. The assessments are performed on each of the muscular regions to assess range of motion (ROM).
Once the difference from each side is recorded then the treatment process can continue. A unilateral imbalance can create a vast number of other problems not listed here as it always involves the rest of the body's mechanics and fascial trains. We aim to correct imbalances between the same pairs of muscles,
For example an individual has the following measurements

	Right	***Left***
Gastrocnemius	90º	70º
Soleus	85º	95º

The aim of the sports kinesiology session is to correct the balance between the muscle groups.
Using basic muscle testing skills we can ascertain which corrections are needed. We may use the basic corrections as follows as these are often extremely effective, simple to use and apply, require less kinesiology knowledge than many other techniques and very often facilitate the necessary corrections.

- Spinal Reflex Technique (SRT),
- Neurovascular corrections (NV),
- Neurolymphatic corrections (NL),
- Emotional Stress Release (ESR),
- Origin and Insertion techniques (O & I),
- Tonification and Sedation techniques (T&S).
- Specific stretching for the muscles involved (If required)

Other areas of correction for each muscle involved are the meridian, emotion and nutrition relating directly to the muscles concerned.
Once the corrections have been completed, a retest is then performed.
The muscles will be in greater balance and this will ripple through the rest of this fascial train as well as the rest of the body.
To ensure a very complete treatment, balancing of the remainder of the 9 major fascial trains should be completed. Many of the muscles for some of the fascial trains are difficult to perform orthopedic assessments on, so in that case subjective feedback must

be considered as well as the alterations to neighboring muscles and joints, and the range of motion for varied joints.
One of the most fascinating areas is that once a correction is performed in one part of the body, a ripple effect travels through the rest of the body and other parts often change or improve as well.

The over view of the anatomical structures of the Superficial Back Line

Boney stations

- Plantar surface of toe phalanges
- Calcaneus
- Condyles of femur
- Ischial tuberosity
- Sacrum
- Occipital ridge
- Frontal brow ridge

Myofascial tracks

- Plantar fascia and short toe flexors
- Gastrocnemius/ Achilles tendon
- Hamstrings
- Sacrotuberous ligament
- Sacrolumbar fascia/ erector spinae
- Galea aponeurotica/scalp fascia

Conclusion

The use of the Sports Kinesiology through the fascial system to instigate change throughout the entire organism is simple, very effective as it facilitates a total change that can ripple throughout the body to alter total body posture, mechanics and movement.
Using the techniques of kinesiology we can identify the underlying specific causes to the dysfunction of an individual muscle or series of muscles, which subsequently places unwanted negative pressures and forces into the fascial system.
By disrupting the dynamic balance of the fascial system the entire body is compromised thus it can lead on to other dysfunctions and injuries.
Sports Kinesiology allows the corrections to be specific, accurate, simple to use and administer, rapid and lasting.
This makes Sports Kinesiology a very useful, safe and easy system to obtain lasting, rapid and very effect changes to a persons well-being, health and movement.

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