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THE INTERCONNECTEDNESS OF THE HUMAN BODY

HOW FASCIA CONNECTS JUST ABOUT EVERYTHING IN OUR BODY TO FORM A SINGLE INTEGRATED SYSTEM

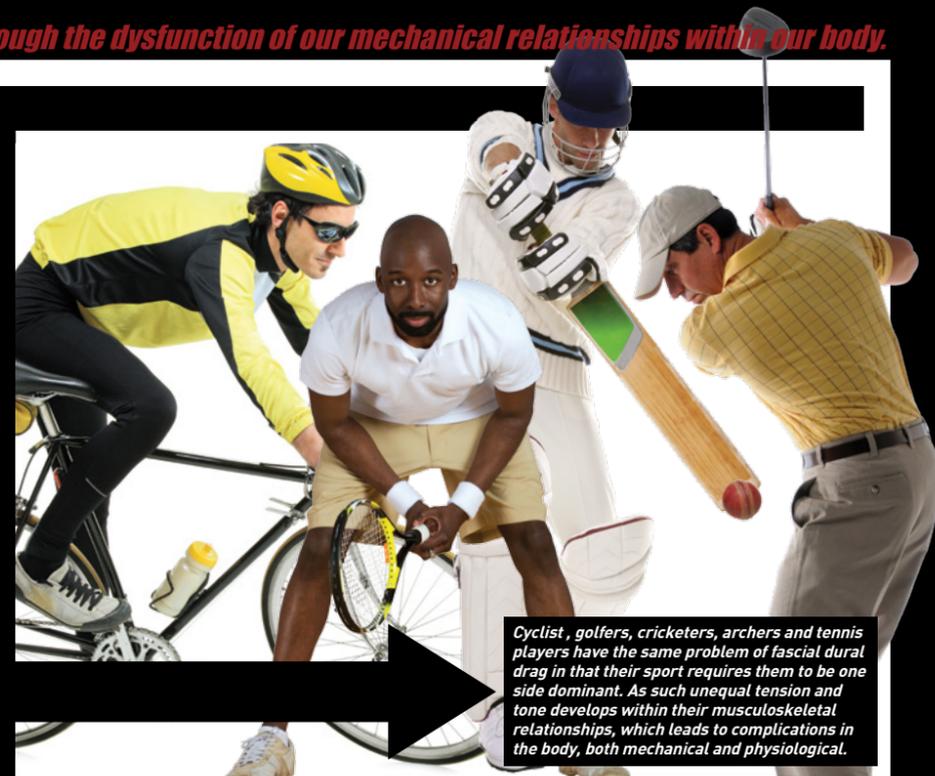
» BY SEAN JOHNSON, Bowen Practitioner and Instructor (www.bowentechnique.co.za)

There's a children's song that we were all taught to sing at one time or another while growing up called the skeleton song. What may at first seem like a mnemonic to help children understand the interconnectedness of the body actually has a lot of truth in its words. As an active person I'm sure you've heard the theory that a tender, painful lower back can be caused by overly tight hamstrings. You've probably felt the blinding pain of a tension headache from staring at a computer screen all day caused by the pull of the aponeuroses (layers of flat, broad tendons) of your skull because your neck is in spasm. Even the ancient Greeks believed in a "heart line" that ran from the heart to the left ring finger - hence the reason for wearing a wedding band on that particular hand today. And the people who gave us democracy, art and the Olympics weren't too far off either. If you talk to anyone who has survived a heart attack they all mention the pain or tingling in the left arm that accompanies a cardiac arrest.

This is all interconnected because your body is one of the finest tensegrity models (isolated components in compression inside a net of continuous tension) that can be found in nature. It is a collection of mechanical relationships and physiological systems all functioning in perfect unison, holistically. Aristotle, the Greek philosopher, gave birth to the school of holism when he decreed that the whole is greater than the sum of its parts. This statement fittingly describes the unique abilities of the body when you watch Usain Bolt break another sprinting record or the number of people who complete the Comrades Marathon every year. Your body is an interconnected symphony of systems, all controlled, directed and held together by the conductor called fascia.

Fascia is a connective tissue, made up of about 70% collagen fibres, that surrounds, encases and holds just about everything in the body, from muscles and organs, to tendons, ligaments and even our brain. It has some very interesting properties, but the most important one for those who lead an active lifestyle is that it tends to respond in unison as a whole. The implications of this property means that without an equal distribution of tension or tone in the body, it will eventually set up compensatory patterns, which inevitably lead to injury and breakdown. If a marathon runner, for example, has a locked left sacroiliac (SI) joint, it can lead to a leg length discrepancy. This is caused by a dural drag of the fascia because his pelvis is out of alignment. His right leg (being longer) takes more impact and therefore, as the dominant leg, tends to work harder. This in turn leads to his body establishing a compensation pattern whereby there is unequal force distribution and functioning through his legs. This can eventually lead to overuse injuries in his knees or ankles, or the development of things like shin splints and tendinitis. Even trying to beat a personal best on a run becomes very difficult when your body is not functioning in an anatomically optimal way. If you took a tyre off of a Formula one racing car it could probably complete a lap of the race track, but if the car was trying to clock its quickest time it would be impossible with only three tyres.

The same principle can even be applied to the sport of bodybuilding. There is a big emphasis on achieving symmetry throughout the musculature of your body. Bodybuilders will spend years lifting weights, dieting and monitoring their improvements to achieve this symmetrical perfection, but a simple neck restriction can hamper this process in, for example, the development of the trapezius, rhomboids and deltoids. Even symmetrical



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quadricep development becomes harder if a bodybuilder battles with a pelvic imbalance. A cyclist with shortened hip flexors, contracted psoas, overdeveloped quads and tight hamstrings may have, mechanically speaking, what's needed to be a successful cyclist, but the posture that they have trained their bodies to adopt, through positive fascial manipulation, can lead to other problems like lower back pain, neck problems and knee problems. Even neck restrictions in cyclists can cause plantar fasciitis underneath their feet because of the dural drag on the fascia through the erector spinae, glutes, hamstrings, calves, Achilles tendon and then finally down into the plantar fasciitis of their feet.

Golfers, cricketers, archers and tennis players have the same problem of fascial dural drag in that their sport requires them to be one side dominant. As such unequal tension and tone develops within their musculoskeletal relationships, which leads to complications in the body, both mechanical and physiological. Dr Roger Sperry won the Medical Nobel Prize for brain research in 1981 and his findings led him to the following conclusion: "Better than 90 percent of the energy output of the brain is used in relating the physical body in its gravitational field. The more mechanically distorted a person is, the less energy is available for thinking, metabolism and healing."

The quote pretty much sums up the complications of uneven tone or tension in the body and explains how our body functions as an integrated unit. Even the mental requirements for peak performance or recovery become compromised through the dysfunction of our mechanical relationships within our body. These myofascial relationships and how they impact performance and injury can be applied to just about any activity or sport. Whether you're a CrossFitter, runner, swimmer, cyclist or weekend warrior, a restriction in your fascia can result in compensatory reactions in other fascial areas of your body, which can lead to injury and hamper performance. ■

Sean Johnson is a Bowen Practitioner and Instructor, with a practice based in Randburg, Johannesburg. He has played provincial rugby at senior level in South Africa and in Australia. Following a herniated disc Sean's playing career was in jeopardy, but he then found Bowen Therapy and made a successful return to the field. Bowen Therapy did what doctors said was impossible, which had a n indelible impact on Sean's life. He therefore became a certified Bowen practitioner and later an instructor.

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