

# REHABILITATING THE INJURIES OF ATHLETES

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When athletes are injured they experience a dramatic decrease in their performance levels. This is not only due to the physical limitations of the injury, but also to a psychological let down. They will usually seek medical treatment from a sports physician, physical therapist, personal trainer, or massage therapist. However, it is not unusual, especially if the injury takes longer than several months to heal, that they will also find their way to massage therapists who have expertise in rehabilitation but do not specialize in sports related issues. It is therefore important that massage therapists specializing in therapeutic or rehabilitative massage techniques be familiar with the special needs of the injured athlete.

In my previous article “Unlock Their Athletic Potential by Understanding Structural Imbalances”, (*June 2017, Vol 17, Issue 06*) I stress the importance of finding and evaluating any imbalances. I also described kinesiology testing, both functional and applied, that show inherent weaknesses and dysfunction which can be used both as pre- and post-treatment testing showing the effectiveness of the treatment. These same tests are important when evaluating injured athletes.

In this article we discuss injuries from the pelvis to the feet. The first evaluation determines which ilium is rotated anteriorly. The following test will accomplish this:

- While the athlete lies supine have the athlete raise one leg held straight approximately 10 inches off the table. The therapist presses down on the thigh above the knee to evaluate the strength of the leg. Repeat with the other leg. The leg on the side of the anteriorly rotated ilium will be dramatically weaker, even on the athlete who has a great jump or can squat excessive amounts of weights.

If one ilium is rotated anteriorly the other is rotated posteriorly. The following test will verify this

- While the athlete lies prone with one knee bent have the athlete raise the bent leg off the table approximately 10 inches. The therapist presses down on the hamstrings while stabilizing the foot keeping the knee bent to evaluate the strength of the leg. Repeat with the other leg. You will find that the leg on the posteriorly rotated ilium side will have significant weakening.

These tests are significant for two reasons. First, they help verify where the rotation and imbalances of the ilium exist. Second, they demonstrate the result of a significant imbalance which is a significant weakening in muscle strength and function. This really catches the athlete's attention. If the injuries are in the hip, gluteal region, hamstrings or quadriceps then one of the keys for rehabilitation will be to bring the iliums back into balance. This can be done within one session using a combination of Cranial/Structural releases<sup>1</sup> and myofascial deep tissue therapy<sup>2</sup>. When this is accomplished the significant weaknesses that were shown with the above kinesiology tests will be dramatically strengthened. The iliums are able to maintain their balance and support, and athletes with soft tissue injuries in these areas will immediately see and experience the increase in strength and function. Often athletes will have been working on strengthening with physical therapists and trainers and gaining very little improvement after weeks of therapy. When they see significant improvement in an hour to 1 ½ hours of therapy

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<sup>1</sup> Don McCann, The Evolution of Releasing the Core Distortion. *Massage Today*, July 2014 Vol. 14, Issue 07

<sup>2</sup> Don McCann, The Integration of Cranial/Structural and Soft Tissue. *Massage Today*, February 2014, Vol. 14, Issue 02

they are not only amazed, but also psychologically boosted. This psychological boost helps the body heal and recover faster. This happens not only with soft tissue injuries of this area but also injuries in the actual joints of the hip. As the iliums come into balance the muscles that were either over stretched or over contracted and could not function properly had significant strengthening which is measured with the above kinesiological tests.

After using the kinesiological testing to determine the anterior and posterior hip rotations you can now use applied kinesiology to evaluate the rest of the legs. On the anteriorly rotated hip we usually see a medially rotated knee with hyperextension and a laterally rotated foot. This helps the leg absorb the extra leg length to maintain what structural balance the body can support. This is extremely valuable when understanding the rehabilitation of the knee. The structural imbalances of the knee and leg described above, like the structural imbalances found in the hip and pelvis, result in significant weaknesses of the muscles attaching around the knee that not only move the leg but also stabilize the knee. If the knee has been injured putting it under stress for kinesiological testing is not recommended. Using applied kinesiology where a muscle fiber in the shoulder is isolated for your testing you can challenge with your other hand the attachments of the muscles around the knee and discover which tissues are injured and which are significantly weakened by the structural imbalance. The norm is that 50% of the muscle attachments and connective tissue around the knee will test weak with this structural imbalance. If the injury is in this area you will often find additional weakened and painful tissue that has been injured. Using the Cranial/Structural releases that were used to bring the iliums into balance along with myofascial deep tissue work can within one session restore a significant degree of balance to the knee. This balance will have less hyperextension and rotation of the knee and lower leg. When these structural improvements achieve less than a 15% distortion there is again a significant strengthening of all the tissues that tested weak around the knee. For the athlete with the knee problem this strengthening not only shows up in function and performance but a psychological lift which will help accelerate the physical healing of the injury<sup>3</sup>.

The ankle, foot and lower leg are also most appropriately evaluated with applied kinesiology. The distortions found in this region are usually as great as those found in the rest of the leg and result in the same lack of strength and function. Again 50% of the attachments around the joints will test weak using applied kinesiology. If the ankle is injured I again would not put it under additional stress by functional tests as this could create irritation or possible further damage. Once evaluated the same combination of Cranial/Structural releases along with myofascial deep tissue therapy can bring the area back into balance and function. Testing after the treatment will show significant improvement if the distortions are now less than 15 degrees. There will be a psychological lift because of the improvements.

The short leg on the posteriorly rotated ilium side will have very similar issues with weakening and dysfunction. However, different attachments around the joints will be weak because the distortions will be different from the long leg side. Injuries and distortions in this leg will respond equally as well as the long leg on the anteriorly rotated ilium side using the same therapies.

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<sup>3</sup> THE PSYCHOBIOLOGY OF MIND-BODY HEALING, Revised Ed. Ernest Lawrence Rossi, S.S. Norton & Company, Inc. New York, London 1986

The distortions we have been talking about from the iliums to the feet are part of the core distortion<sup>4</sup> which everybody is born with as verified by how well developed it is at one years old where it is observed as being normal<sup>5</sup>. The observed distortions and weaknesses verified with kinesiology were present before the injury and often are the reasons the injury occurred. If there had been balance providing strength and function the body might very well have avoided being injured. Once this strength and function are returned by bringing the body back into overall balance there is a gain in strength greater than before the injury. This is very important. Some of the tissue has been injured so having additional strength and balance will make up for the weaknesses in the injured tissue usually creating a stronger and more functional leg than before the injury. This helps performance and also helps minimize a repeat of the injury. It will also speed up the rehabilitation and a return to their sport which gives athletes a psychological boost and helps them overcome the depression associated with an injury.

The chiropractic theory of structure = function is supported with the combination of structural balance from Cranial/Structural releases and myofascial soft tissue therapy. The fact that soft tissue governs the relationship of bones and structure puts significant rehabilitation and therapy tools in the hands of a knowledgeable massage therapist.

Cranial / Structural  
Core Distortion  
Sports  
Potential  
Injuries  
Kinesiology  
Legs/Lower Body  
Torso

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<sup>4</sup> Don McCann, The Evolution of Releasing the Core Distortion. *Massage Today*, July 2014 Vol. 14, Issue 07

<sup>5</sup> ESSENTIALS OF SKELETAL RADIOLOGY, Vol. 1, 2<sup>nd</sup> ed., Terry R. Yochum, BS, DC, DACBR, FCCR, (C), FICC, and Lindsay J. Rowe, M. App. Sc. (Chiropractic), M.D., DACBR, FCCR, (C), FACC. (AUS), FICC, Williams & Wilkins 1996, pg 175, Table 2.26, pg 176, Table 2.27, 2.28