

# Sports Injuries: An Integrated Perspective

Ronda Wimmer, PhD, MS, LAc, ATC, CSCS, CSMS, SPS

Bringing Oriental medicine into the sports medicine arena is going to be challenging at best. Oriental medicine within the Western academic and medical community is new and not widely understood, although there is more curiosity about what defines Oriental medicine's physiological function. Oriental medicine research is transposed to fit within the traditional academic single-variable research methodologies. Although research is needed, only when multi-variable research methodologies are adopted can we truly explore the ramifications of proving Oriental medicine.

The sports medicine arena is no different. If one wants to specialize in sports medicine, one must have depth within the sports medicine profession as well as Oriental medicine, and vice versa. This means a person must understand both the Western and Eastern approaches to treatment singularly, before one can integrate them with ease.

This article will discuss injury mechanism from both perspectives. Actually understanding the injury mechanism within the sports medicine arena is the basis for comprehending how to treat athletes from both perspectives.

The injury mechanism identifies the difference between acute and chronic conditions. I have found in many sports medicine, physical therapy, chiropractic, and athletic training environments that protocol treatments tend to be used across the board. These treatments tend to focus on symptoms rather than problem origins. Again, the basis reverts to recognizing the appropriate injury mechanism.

Oriental medicine can also employ protocol treatments. However, the results are marginal at best, and if patients do not see results, they go back quickly to the "politically correct" health care provider. By understanding how to use the knowledge gained, one can see the importance of recognizing equally the value of both professions.

Western health care professionals who try to learn Oriental medicine in weekend seminars, then try to practice protocol treatments, are representing our profession as well. This presents a very delicate problem. Therefore, it is imperative for both professions to recognize and equally respect each other. As an acupuncturist, if you identify with the sports medicine profession and its treatment methodologies, then your acceptance within the field will be easier than one with no sports medicine background in the West. Conversely, if we are to accept a sports medicine professional within the acupuncture community, the same rules apply. Understanding and equally respecting each other as health care providers enables greater diagnostic precision in differentiating acute and chronic injury mechanisms for more effective patient results.

## Injury Mechanism - Western Perspective

Acute injuries happen suddenly, and correlate to direct or indirect trauma. For example, falling on an

outstretched arm represents direct trauma to the wrist joint, and indirect trauma to the elbow and shoulder. These injuries include fractures; strains; sprains; dislocations; subluxations; bursitis; nerve impingements; and growth plate problems in children.

The initial treatment focuses on managing the edema with RICE (rest, ice, compression and elevation). Once this is achieved, range of motion is increased, progressing into exercises that gradually increase strength. The idea within a clinical setting is to return the patient to normal daily activity, whereas with an athlete, the goal is to return that athlete back to his/her sport-specific activity.

Chronic injuries happen over time, where muscles are either overused, or muscles are used that are not normally used regularly. This is the area within sports medicine that tends to be forgotten. It becomes very easy to implement protocol treatments.

However, the problem arises with patients not getting results. Why? Usually symptoms are treated as inflammation rather than the root of the problem, which is based within the injury mechanism. Treating them simultaneously is preferred but rarely practiced, except by those who think through the patient's condition. However, few sports medicine training centers or university training rooms in which I have supervised or participated practice this method. This is especially true with overuse injuries like tendonitis.

#### Injury Mechanism - Eastern Perspective

Acute injuries in Eastern methodologies also happen suddenly. These injuries involve the *qi*, blood, body fluids, channels and *zang/fu* organs. The most common is blood and *qi* stagnation, which represents an excess condition. In both instances, the *qi* and blood flow become disrupted and cause stagnation to occur, meaning the *qi* and blood diminish and/or are completely obstructed. Pain is a good indicator. To differentiate *qi* versus blood stagnation, an easy rule applies: pain followed by swelling - *qi* stagnation is predominant; swelling followed by pain - blood stagnation is more predominant. Usually they occur together.

Chronic injuries in Eastern methodologies can happen over a period of time. Within the Eastern perspective, TCM's focus is on pre-existing conditions that predispose an individual to a particular condition or conditions. The majority of these cases involve pre-existing conditions within the *zang/fu* organs such as *qi* deficiency; *qi* stagnation; blood deficiency; blood stagnation; damp-phlegm accumulation; and yin and/or yang deficiency, all of which give rise to wind, cold, damp *bi* invasion, exacerbating the condition and invasion of the collaterals.

By understanding the injury mechanism, we can identify the pre-existing condition to counterbalance it. By being able to identify the organ(s) affected, we can be more specific and preventative in our treatments. Most acupuncturists (including formally trained medical doctors, chiropractors, physical therapists and athletic trainers) tend to still use protocol treatments within the clinical setting, and do not identify the pre-existing conditions. This lack of depth is extremely apparent among Eastern and Western health care providers. That is why knowledge in both professions needs to be equally appreciated.

The organs as related to sports medicine within the Eastern philosophy are broken down accordingly by each *zang/fu* organ's basic function. (There are other functions for each of these organs, but for the sake of simplicity, I have addressed issues specific to sports injuries of the extremities.)

Tendons are related to the liver according to the Five Element correspondence, and as the athlete's intensity increases with their training, the function of the liver, according to TCM, is impaired. One of the functions of the liver is to supply blood to all parts of the body. If blood flow decreases or becomes obstructed, the liver's responsibility is to regulate the blood (because of its function to regulate and store blood). Thus, if the liver becomes impaired or obstructed, the signs and symptoms correlate with many sports injuries involving tendons.

Muscles are related to the spleen according to the Five Element correspondence. The spleen's basic functions are transporting and transforming nutrients, and producing blood. Another aspect unique to the spleen is that it "rules" the extremities. Therefore, the spleen and stomach are extremely important to sports injuries because they nourish all the other *zang/fu* organs. Thus, if the spleen becomes impaired or obstructed, the signs and symptoms correlate with any injuries associated with the extremities, and their transporting and transforming of nutrients to support the other *zang/fu* organ functions.

Although bones are related to the kidneys, I want to address the kidneys' relationship with the tendons. The kidneys support the liver, and the liver directly supports the tendons. However, if the kidney yin becomes deficient, this affects the liver yin, which affects the tendons. The kidneys also store the essence/*jing*. This information is valuable in chronic conditions. Thus, if the kidneys become impaired or obstructed, the signs and symptoms correlate with any injuries associated with lower-extremity and low back functions.

Having depth through understanding includes why and what we are treating - a step that tends to be overlooked in both professions. These are very important steps since they directly relate to the quality of care of our sports medicine athletes/patients.

Conclusion Oriental medicine is very valuable within the sports medicine arena. The traditional academic sports medicine perspective will place credibility upon the acupuncturist with his/her individual knowledge within the sports medicine profession.

I caution those who want to pursue a sports medicine specialty either from the Western or Eastern perspective; you must have formal training in each. The knowledge an acupuncturist lacks within the sports medicine arena will, unfortunately, represent Western viewpoints of the Oriental medicine profession as a whole as being incompetent. This would not be the case in reverse.

Oriental medicine can contribute a wealth of knowledge and result-oriented outcomes that can benefit the sports medicine arena greatly. Again, the key goes back to the basics and comprehension of the how's and why's of both professions.

The ultimate goal for the Oriental medical community is to gain credible acceptance within the already existing sports medicine community by establishing open communication within both academic arenas. Hopefully, this will promote joint research collaborations that will ultimately benefit both academic professions. Additionally, by promoting integrated injury prevention education and treatments, athletes will benefit directly, with results encompassing greater depth and refining the quality of care in sports medicine.

MARCH 2003

