

## **Injury vs. Muscle Soreness**

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It is springtime and everyone is starting his or her sports training. Whether it is softball, running, cycling or climbing, all sports participants are at risk for injuries.

Some people train through the winter for their sport by utilizing a fitness center and performing various weight-training exercises. Whether a person has been off-season training or not, preparing for your sport may still lead to muscle soreness or injury.

I would like to give some helpful tips that may help distinguish between injuries and muscle aches and pains. I will also give a few tips on prevention and rehabilitation.

First, I would like to identify the difference between injury, muscle spasm, and muscle soreness. If you are participating in a sport and you get a sudden onset of pain and the area of concern begins to swell, or if you hear a popping or tearing noise as you are throwing a baseball, for example, most likely you have an injury.

If you are out climbing all day and a few hours later you begin to feel sore in your muscles or joints, then you probably have muscle fatigue. If the muscle fatigue keeps persisting and worsening, you may have injured the area but were not able to recognize the signs and symptoms at the time of exertion.

The signs and symptoms of muscle spasms are strong and painful contractions that may result from muscle fatigue, exertion, or from electrolyte imbalances.

If there are many muscles involved and/or there exists loss of sensation in the hands and feet, this usually means this is more concerning and may require immediate medical attention.

To decrease muscle spasms, slowly stretch the area and use mild muscle relaxing agents like Epsom salt soaks, ice therapy, calcium/magnesium supplements, and hot packs.

To prevent muscle spasms, make sure you are hydrated, your electrolytes are balanced, you warm up before your sport, and you keep your muscles warm.

Muscle soreness consists of an after workout achy feeling in the muscle. The soreness is usually a build up of lactic acid. To prevent lactic acid buildup, you can supplement your diet with appropriate vitamins that can prevent its onset. Drinking plenty of water will keep the lactic acid flushed out and will prevent any build up. If the lactic acid is already present, drinking plenty of water, balancing your electrolytes, and warming the affected area will help.

If you are experiencing arm pain, usually this is a musculoskeletal disorder. If the problem is in the wrist, this could be carpal tunnel syndrome, a ganglion cyst, a strain/sprain, or tenosynovitis, which is an inflammation of the tendon synovial sheath.

Pain and inflammation in the elbow area may indicate arthritis, bursitis, dislocation, tendonitis, or tennis elbow.

If the pain is in the shoulder, there could be a separation of the acromioclavicular joint, arthritis, bursitis, dislocation, a clavicle fracture, tendonitis, a torn rotator cuff, or capsular tear.

The treatment for tendonitis and bursitis may include anti-inflammatories, ultrasound treatments, and bracing. A physician should diagnose any of these disorders that are listed above in the arm pain section.

Back pain affects 80% of the population. Back pain, at its worse, can result from internal disorders like a gastrointestinal disorder, a kidney problem, a prostate, or vaginal disorder. Diagnosing a back complaint is determined by location, onset, distribution of pain, and its response to activity.

A simple sneeze that causes a sudden onset of low back pain that is debilitating in nature may indicate a spinal disc disorder. This sneeze was only the “straw that broke the camels back.” Most likely there existed many smaller repetitive motions that led up to a larger event like a disc disorder.

This is true for many injuries. Preventing repetitive strain syndromes is the biggest challenge for medical professionals and athletic trainers. The rehabilitation of chronic reoccurring injuries is frustrating and time consuming.

Prevention is really the key point. How to prevent injuries is very dependent on a person’s activities of daily living. Discussing these activities with a professional can help to outline specific lifestyle changes that could result in the prevention of injuries.

Workstation assessments, postural overload, and the reduction of repetitive motions are only a few of these specific areas to be addressed.

I am a certified injury prevention consultant and am available for consultations to review areas of concern. Call me at 662-5232 for more information.