

## JOINT SPRAINS

Many athletes suffer from joint sprains. Joint sprains occur when an excessive force is applied at a velocity and direction that the joint cannot handle. Since the force is strong some structure within the joint has to take the force. Most often it is the ligament, which supports the joint by connecting bone to bone that is overstretched or torn. The over-stretching or tearing of a ligament which occurs as a result of the excessive force is called a sprain.

After a sprain occurs, in addition to being painful, the joint will usually swell and bruise. This is the acute phase. During this time it is important to create the best environment for healing to occur. (PRICE= Protect, Rest, Ice, Compress and Elevating) The swelling can last for a few days up to a couple of months after the injury. Physical Therapy is also important at this time. Modalities and gentle exercise can be used to help decrease the swelling and pain, and in doing so will help speed up the recovery process. Stretching and strengthening of the proximal joints and cardiovascular training of uninvolved areas may be continued during this period as long as it does not affect the injured joint. For example, a tennis player with an elbow sprain can continue gentle shoulder exercises (as long as the exercises are not causing stress or pain to the elbow) and bicycle to maintain his or her cardiovascular condition.

Once there has been a decrease in the

swelling at the joint, more aggressive exercises may be started and progressed slowly. At this time, restoring full movement to the joint is important. Often times the joint becomes stiff due to swelling and it is a natural reaction to limit movement at the joint because of pain. The period for restoring full movement is approximately 4 weeks. After this period, the joint is usually healed enough to being resistive strengthening exercises. Some therapists will begin light resistive exercises when 60- 80% of full movement is achieved. Many therapists will begin the resistive portion of the program with isometric exercises. Isometrics exercise consists of applying resistance without allowing any movement to occur. As the patient advances, resistive exercises with movement maybe added. Gentle resistive tubing or band exercises are usually progressed to resistive equipment such as Nautilus, Keiser, or Cybex. The goal is to strengthen; while at the same time experiencing a decrease in pain. Gradual return to sports is also worked on through performing sport specific activities.

Once a joint has been sprained, it is likely that it will occur again. Once a ligament has been stretched, it does not shorten. For this reason it is important to keep the joint supported by strong muscles. To pre-vent re-injury, it is important to continue the strengthening exercises for the muscles around the joint.

**Remember to consult with your physician after an injury to make sure the proper diagnosis is made and the proper treatment plan utilized.**

