

## Overuse Injuries Douglas A. Foulk, MD

Injuries that are seen in an Orthopedic office can be divided into two categories: those that are acute (a single traumatic event) and those that are overuse (multiple minor events). These overuse injuries are the most common and involve the tendons, bones and joints. Examples of overuse injuries include rotator cuff tendonitis, jumper's knee (patellar tendonitis) and tennis elbow.

The human body has an amazing ability to adapt to the stresses we put on it. We call this process remodeling. Bones get stronger, muscles get bigger, and tendons get stronger as we apply stress to them. If the stress we apply with exercise is too great, the tissue can break down and become painful and weak. Not only can the amount of time and intensity of an activity factor in, but also the technique and equipment one is using.

Training errors are the most common cause of an overuse injury. An example of this would be a person who has swam their entire life, but then suddenly increases the frequency and intensity of their swimming. This most often occurs because the athlete wants to become stronger and faster in the water too quickly.

Diagnosing overuse injuries is usually straight forward if a good history is taken, followed by a complete physical examination. Sports medicine physicians who have the training and experience in understanding overuse injuries are the best for one to see. On occasion, x-rays and other diagnostic studies are needed to confirm a diagnosis and evaluate the severity of the problem.

The best method of treatment of an overuse injury is prevention. Beginning a training program with a more gradual progression, incorporating cross training and adequate rest are key components. Equipment may need to be fitted by professionals taking into consideration biomechanical factors such as limb alignment, foot arch and hand size. Coaches and trainers provide an excellent resource to review and modify technique and type of workout program.

When an injury does occur, and has been evaluated and correctly diagnosed, treatment begins with activity modification. Decreasing the frequency and intensity of the activity along with technique modification, if needed, will usually allow the overuse injury to resolve. Anti-inflammatory medicine can also be used to help in decreasing symptoms. Physical therapists and athletic trainers can be utilized to treat the initial symptoms, when severe, and then instruct the athlete in stretching and strengthening exercises to expedite recovery and prevent re-injury. Rarely is surgery indicated in the treatment of an overuse injury.

Involvement in exercise and sports can be fun, and is very beneficial in promoting general health. Use common sense in the progression of your training program. Ask questions and seek professional advice if and when problems occur. Happy exercising!