What You Need to Know About Rotator Cuff Impingement and Tendonitis

for information on this and other injuries, see our web site at www.vanderbiltorthopaedics.com

Vanderbilt Sports Medicine
Knee Center and Shoulder Center
What Is A Physical Therapist?

Physical Therapists are healthcare professionals who evaluate and treat people with healthcare problems resulting from injury or disease. In today's healthcare system, Physical Therapists are experts in the examination and treatment of musculoskeletal and neuromuscular problems that effect daily functional abilities as well as recreation/sports abilities. Physical Therapists assess joint motion, muscle strength/endurance, and performance of activities required in daily living.

The minimum educational requirement is a post-baccalaureate degree from an accredited education program. The majority of programs offer a master's degree, but a growing number of programs offer the Doctor of Physical Therapy (DPT) degree. Candidates must pass a state administered national exam as well as maintain annual continuing competency/licensure requirements.

What Is A Certified Athletic Trainer?

Certified athletic trainers (ATCs) are medical experts in the prevention of athletic injuries; recognition, evaluation and immediate care of athletic injuries; and rehabilitation and reconditioning of athletic injuries. Athletic trainers can help you avoid unnecessary medical treatment and disruption of normal daily life. The American Medical Association recognizes athletic training as an allied health care profession.

In addition to athletic injury rehabilitation, Vanderbilt Sports Medicine provides athletic training services for local high schools. The American Medical Association recommends that a certified athletic trainer be in every high school. The minimum educational requirement is a bachelor's degree and being certified by the NATA Board of Certification (NATABOC). In addition to certification, athletic trainers must meet individual state licensing requirements in a growing number of states.
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Before discussing specific conditions of the shoulder it is important to understand how the shoulder works. The shoulder is a multi-axial joint connected by a series of muscles and tendons that allow for a wide range of movements while maintaining stability. In describing the shoulder joint it is best to picture a golf ball sitting on a tee, where the ball is the head of the humerus and the tee is the socket or glenoid. The scapula or shoulder blade assists the arm with movement. All components of the shoulder complex must move together smoothly to perform specific movements. The picture below shows the large amount of movement that is possible at the shoulder.

With this freedom of movement comes increased risk for injury. One of the most common conditions of the shoulder is impingement. Shoulder impingement is closely related to tendonitis and bursitis. We will look at each of these conditions and list signs and symptoms as well as treatment options for recovery.
Impingement/Bursitis
Impingement is when the supraspinatus muscle is pinched between the acromion process and the head of the humerus and becomes irritated and swollen. This “pinching” can occur with many movements including flexion, abduction, and internal rotation. A bursa is a lubricated sac that protects the muscle from rubbing against a bone. The bursa may become inflamed when it rubs against the acromion. This inflammation is termed bursitis.

Tendonitis
Tendonitis is often caused by overuse activities such as throwing or lifting. Many times it occurs in individuals who overtrain, do a lot of overhead work, and whose muscles need strengthening.
What Causes It?

These conditions typically occur in physically active individuals who perform repeated overhead arm motions as seen as in throwing, tennis, and golf, or in professions requiring repeated overhead lifting. They can also be associated with weakening of the shoulder’s scapular stabilizing and rotator cuff musculature and can be a result of shoulder instability.

Signs and Symptoms

You may experience shoulder pain that can extend from the tip of the shoulder down to the upper third of the arm, pain in the shoulder when the arm is lifted away from the body and overhead, and pain while sleeping due to pressure on the shoulder. Your range of motion may be limited, and you may experience muscle weakness. Painful popping is often associated with this condition.

Diagnosis

To properly diagnose your condition, the doctor will take a thorough history focusing on activities in which you use your shoulder. He/she will palpate or feel the shoulder to locate the area of your pain. The doctor will then perform some special tests that will isolate specific muscles to further pinpoint the problem. Diagnostic tests such as x-rays will be taken to see the bony structures of the shoulder. An MRI may be necessary to determine if the soft tissue (tendons and muscles) around the shoulder is injured.
Your Initial Physical Therapy Visit
Your first physical therapy visit will be for an evaluation with a physical therapist (PT). The PT will ask you information about your past medical history as well as your present injury. After taking your history, the PT will take measurements of the range of motion and strength of your shoulder. Once these measurements are taken, the PT will explain and demonstrate exercises for your shoulder that you will be performing at home and when you come to therapy. The therapist will let you know how often to perform your exercises at home and how many times per week you will need to come to therapy.

Your Second Physical Therapy Visit
Your second visit to physical therapy may be with a physical therapist and/or an athletic trainer. Your athletic trainer, or physical therapist will guide you through the proper stages of your rehabilitation process by advancing your exercise program until you are released from physical therapy by your physician.

Treatment
Treatment will begin with the physical therapist or athletic trainer trying to control your pain. This may include resting your shoulder by limiting your motion, using ice packs, and taking an anti-inflammatory medication. The next step is to strengthen the rotator cuff and scapular stabilizing muscles by performing specific exercises that will be provided by your physical therapist. Most patients see improvement in 6 to 8 weeks. If you have not improved within this time frame, your physician may consider injecting your shoulder with a corticosteroid to help reduce the inflammation.

Precautions/Limitations
You may need to modify your activities during your recovery process.

- Avoid moving your arm into ranges of motion that cause pain.
- Limit overhead motions.
- Avoid lifting heavy objects that increase your pain.
Stages of Rehabilitation

Stage 1 Goals:
- Decrease pain
- Decrease inflammation
- Increase strength of scapular stabilizers

Stage 2 Goals:
- Increase range of motion
- Increase strength of scapular stabilizers
- Increase strength of rotator cuff

Stage 3 Goals:
- Increase muscular endurance of scapular stabilizers
- Increase muscular endurance of rotator cuff
- Sport-specific exercises
- Work-specific exercises

The time frame for moving through the stages of rehabilitation will not be the same for everyone. We all heal at different rates and not every injury is the same. Once you have attained your rehab goals, you will be discharged from physical therapy. When you leave physical therapy, your therapist will provide you with a home exercise program (HEP) that will help you maintain the strength that you gained while in rehabilitation. It is important for you to be involved in some form of orthopaedic fitness to insure good physical health. You should consider a lifestyle of organized physical activity to help prevent future injuries.
Our Physicians

Kurt Spindler, MD: Orthopaedic Surgeon

John Kuhn, MD: Orthopaedic Surgeon

Warren Dunn, MD: Orthopaedic Surgeon

James Carey, MD: Orthopaedic Surgeon

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For more information on this and other injuries see our website: www.vanderbiltorthopaedics.com

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