

TAKING CARE OF YOUR ROTATOR CUFF

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With spring in the air, athletes' thoughts have turned to baseball, golf, tennis, cycling and other outdoor activities. One of the most important body structures involved in all of these activities is the rotator cuff which is made up of the muscles and tendons that surround the top of the upper arm bone (humerus) and hold it in the shoulder joint.

The human shoulder is designed for motion, more so than any other joint in the body. The normal rotator cuff range of motion allows us to reach, turn, grab, throw and lift. By training the rotator cuff's four muscles appropriately, we can keep our shoulder stabilized and allow it to function as the power base for all upper extremity activities.

A rotator cuff injury may result suddenly from a single traumatic event, such as from excessive force resulting from a fall, or develop gradually from repetitive overhead activities, such as pitching or painting a ceiling. Like many body parts, the rotator cuff has an impaired capacity to heal after age 30.

To enjoy a safe and successful throwing campaign or golf season, we need to start preseason strengthening of our rotator cuff, just as we would conditioning for our heart and lungs. The rotator cuff is best strengthened in isolation with your elbow at the side using weights or, as with our professional athletes, a weighted bat. Exercise done with your arms away from the side, with your hands in front of you or overhead, strengthens the many other muscles that cross the shoulder but does not isolate the rotator cuff and actually can overwhelm the rotator cuff. It takes up to three months of effective conditioning for your rotator cuff to accept the forces of a strong tennis serve or baseball throw.

Signs and symptoms of a rotator cuff injury include recurrent, constant pain, particularly associated with overhead activities, reaching behind us to grab our seatbelts, or reaching far into a cupboard to pick up a dish. Limited motion, difficulty lifting your arms up to the shoulder level and above, and muscle weakness, especially when attempting to lift the arm, are also common with a rotator cuff injury. Rotator cuff pain is often felt more at night and may prevent you from sleeping on the affected side.

Soreness in the rotator cuff can often be improved with rest and some oral anti-inflammatory medication. Strengthening and stretching exercises, as part of a physical therapy program, can allow restoration of shoulder motion and may also be recommended. Sometimes however pain persists and your physician may order a test called magnetic resonance imaging or MRI in order to "look inside the body" to help understand what is injured and how best to repair it.

Today's medicine offers physicians tremendous options with classic treatments such as injections and open surgical repair rapidly becoming things of the past. We can now repair rotator cuff injuries, including related muscles, tendons and sometimes bony fractures deep within the shoulder, through arthroscopic surgery.

Arthroscopic surgery utilizes miniature instruments inserted through small keyholes made through the skin and does not violate the major muscle in the shoulder known as the deltoid. As a result, the pain associated with this type of minimally invasive repair is significantly reduced, as is the likelihood of stiffness, thus allowing for a much more comfortable recovery. In

addition, arthroscopic surgery allows a much gentler approach to repairing and restoring the shoulder of people in their 60's, 70's and 80's who have suffered rotator cuff injuries.

Major league pitching careers used to be finished with an injury to the rotator cuff. More recently, however, famous and successful pitchers like Kurt Schilling have returned from multiple arthroscopic shoulder surgeries to pitch at upwards of 95 miles per hour with accuracy. Once requiring more than a year for recovery, these advances in shoulder surgery allow the recreational golfer, tennis player and local high school athlete to return to their sport within 4-6 months.

Some longstanding, untreated, rotator cuff injuries are not repairable. Previously, these patients were left with a painful shoulder and an arm that lay at their side that was not functional for activities of daily living. An exciting and tremendously successful new advance is "reverse shoulder arthroplasty", more commonly known as a shoulder replacement.

The shoulder is the work horse of the upper extremity. It is necessary for all activities of daily life and allows us to enjoy sports. By conditioning our shoulders, we can enjoy a successful sporting campaign. By paying attention to the pain we feel in our shoulders, we can start early treatment to restore shoulder function without invasive surgery. And, if required, there is now minimally invasive rotator cuff surgery and shoulder replacement available to diminish pain and restore function.

As we enter spring and get ready to enjoy the great outdoors, don't forget your shoulder and your rotator cuff as you line up to tee off, as you rear back to throw in from the outfield, or as you release your first tennis serve of the year.

Dr. Joshua Port is a Board Certified Orthopedic Surgeon and is Fellowship trained in knee and shoulder surgery and sports medicine. He is a Fellow of the American Academy of Orthopedic Surgery and currently serves as President of the Pennsylvania Orthopedic Society. In addition, Dr. Port is a Clinical Assistant Professor in Orthopedics at the University of Pittsburgh School of Medicine. Dr. Port currently serves as head team physician for the Altoona Curve as well as several area colleges, and as orthopedic consultant for many area high schools.