

Active BONES

JANUARY 2011



**ORTHOPAEDIC SURGERY AND SPORTS MEDICINE
TEACHING AND RESEARCH FOUNDATION**

**THIS ISSUE
INCLUDES:**

Rotator Cuff Injuries

Upcoming Topics:

Snowboarding Injuries • Traveler's Workout
Protecting Young Pitchers • ACL Injuries

Dear Reader,

ACTIVE BONES is the official newsletter of the Orthopaedic Surgery and Sports Medicine Teaching and Research Foundation (OTRF). The newsletter is a brief, easy-to-read educational piece that provides continuing education about musculoskeletal injuries, health performance, and new research and development in the field of Orthopaedic Surgery and Sports Medicine.

Please contact us at www.otrfund.org or stevenchudikmd@hoasc.com with any questions, suggestions for any specific topics that may be of interest to you, or if you just wish to be added to the distribution list to receive this publication directly.



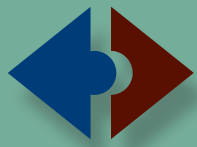
Sincerely,

Steven C. Chudik MD.
Orthopaedic Surgeon
OTRF Founder and President

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Rotator Cuff Injuries



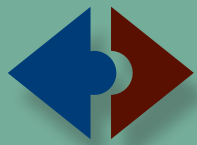
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According to the American Academy of Orthopaedic Surgeons as much as 25% of the population over the age of 60 may have a rotator cuff tear. The incidence of rotator cuff injury increases with age and is uncommon under the age of 40. Other risk factors include repetitive overhead work or athletic activities and trauma which can lead to this increasingly common injury.

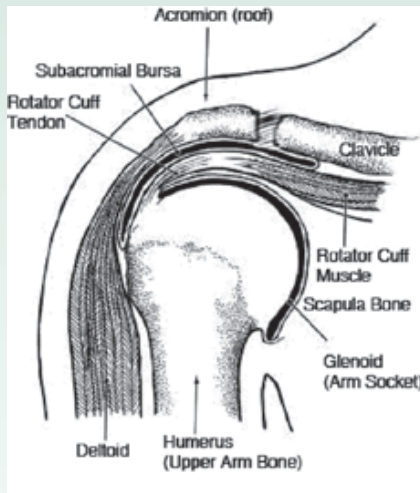
The rotator cuff is a collective group of four muscles including the subscapularis, supraspinatus, infraspinatus, and teres minor. Each of these muscles originates on the scapula (shoulder blade) and inserts on the upper end of the humerus (upper arm bone) by its tendon. The primary purpose of these muscle and tendon units is to stabilize the head (ball) of the humerus on the glenoid (socket) of the scapula. When you maneuver your arm away from your body with activities like reaching, lifting, or throwing,

the rotator cuff contracts to keep the head (ball) of the humerus centered on the glenoid (socket). The rotator cuff has to work very hard (forces often greater than your body weight) to counter the forces exerted by some of the bigger muscles of the shoulder girdle, particularly the pectoralis major (pec) and deltoid, which would otherwise pull the head (ball) out of the glenoid (socket).

Rotator cuff tears typically occur in the tendon just as it inserts into the bone. The tears result from two processes, degeneration and trauma. Degeneration (breaking down) of the rotator cuff occurs over time with age, especially in those who do not maintain themselves with appropriate rotator cuff exercises for the shoulder and in those who are exposed to overuse with repetitive overhead work/activities or uncontrolled heavy lifting. Rotator cuff tears typically occur in people ages 50 and greater after trauma, most commonly from falls. As we age, these degenerative changes weaken the rotator cuff and make it susceptible to tearing from trauma associated with lifting, falling, or throwing.

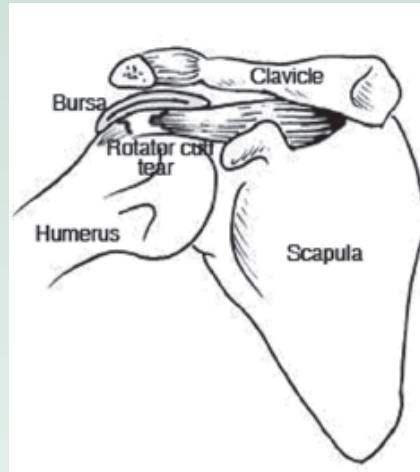


Rotator Cuff Injuries continued



Patients with rotator cuff tears usually present after a recent injury that caused immediate shoulder pain and difficulty raising the arm. They may also complain of pain which persists along the upper arm and outer shoulder, wakes them at night, and is aggravated with reaching or lifting with their arms away from their body (even if dramatically improved

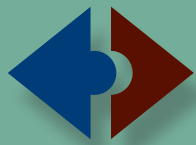
since the initial injury). Physical exam of the shoulder may reveal pain and weakness against resistance (pushing against the physician's hands) and a MRI can make the definitive diagnosis. Rotator cuff tears do not heal and tend to get larger and more



symptomatic (painful) over time. Treatment depends on the patient's medical health and demands (activity level), the presence of arthritis (wearing out of the shoulder joint surface) and the reparability of the tear. For patients with large irreparable tears, elderly patients with low demands, or patients who are poor surgical candidates because of

other health conditions, restricting activity to prevent symptoms combined with physical therapy to optimize the function of the remaining intact (not torn) rotator cuff muscles is the most appropriate initial treatment. For irreparable tears with shoulder arthritis (rotator cuff arthropathy), initial treatment is the same except in rare cases when a reverse shoulder replacement may be warranted. For irreparable tears that have failed the initial activity restriction and therapy, arthroscopic surgery to debride (clean-up) the rotator cuff and shoulder joint, release or use the damaged biceps tendon to partially repair the rotator cuff, remove the inflamed bursa or decompress the bony space between the humeral head (ball of the shoulder) and the acromion (bony roof of the shoulder) may be helpful to relieve symptoms. For all other symptomatic rotator cuff tears, surgery is needed to repair the rotator cuff tendon back to the arm bone. Surgery may be performed arthroscopically or with an open incision. Return to full activity usually requires six weeks in a sling followed by 4 to 6 months of therapy.

Rotator cuff tears are a common source of shoulder pain. The risks for injury can be reduced with proper exercise and avoiding risky behaviors; however, rotator cuff tears do not heal by themselves and require surgery and extensive rehabilitation to alleviate pain and restore shoulder function.



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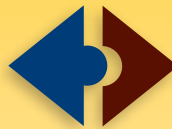
We Need Your Help

OTRF can't do it without you. There is no question that health-care is expensive and difficult for most to afford; however, to continue to make important advances in healthcare, we need everyone's help to fund research and education. To conduct its work, OTRF has been fortunate to receive large donations from larger, more affluent parties and organizations; but, it still thrives mostly on small donations from many different individuals. Most donations come from the many patients and families that Dr. Chudik directly touches in his practice. Often, it is no more than the price of a Starbucks cup of coffee; but every donation, large or small, makes a difference. Thank you for your support.

**Thank you
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Orthopaedic Surgery and Sports Medicine Teaching and Research Foundation is Committed to Research and Education



ORTHOPAEDIC SURGERY AND SPORTS MEDICINE
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OTRF was founded by Dr. Steven Chudik in 2007 and is a non-for profit organization dedicated to funding research and education for the purpose of keeping people active and healthy.

Injury to and degeneration (wear and tear with use and age) of our musculoskeletal system (our joints and cartilage, muscles and tendons, bones and ligaments) threaten our ability to stay active, work, and lead healthy lifestyles. Too many individuals are getting injured or developing arthritis at younger and younger ages. At alarming rates, little leaguers are injuring their elbows, young female athletes are rupturing their anterior cruciate ligaments (ACL), weekend warriors are tearing their meniscus, golfers are missing the season with rotator cuff tears, physical laborers are getting injured and are unable to work, and young adults are unable to stay active because of debilitating arthritis.

There is a great need to disseminate knowledge amongst our community so that we can better prevent these injuries and degeneration (wear and tear) and best preserve our ability to stay active and healthy. We also need to fund unbiased, quality, and cutting edge research to develop better and less invasive methods to prevent and manage these injuries and degeneration.

To meet these needs, OTRF produces the newsletter, "ACTIVE BONES," shares information regarding health performance related issues of nutrition and fitness, hosts Athletic Training educational programs, conducts local educational seminars for health care providers and the community, and most importantly funds research and development particularly in the areas of cartilage injury and repair; sports injury prevention; knee ligament injury prevention and reconstruction; and minimally invasive surgery for fracture, tendon, ligament, cartilage and joint repair.