

ARE YOU HAVING SHOULDER PAIN?

If you have new or ongoing shoulder pain with some of the symptoms listed below, seeing a physical therapist may get you back to your normal activities and reduce your pain. Often shoulder pain and problems can be treated non-operatively with a program designed specifically for your particular shoulder complaints by a physical therapist in your area.

Common Problems

ROTATOR CUFF TEARS

- Weakness in shoulder
- Difficulty lifting

INSTABILITY AND LABRAL TEARS

- Pain or clicking deep in the shoulder
- Shoulder feels loose or that it may slide out of place

IMPINGEMENT

- Pain with reaching up or out or across
- Pain with putting hand behind your back

ADHESIVE CAPSULITIS/FROZEN SHOULDER

- Shoulder stiffness that begins in the absence of injury
- Severe pain both at rest and with movement



Avanti Therapy

Phone: 303-543-1201

Fax: 303-543-1206

5350 Manhattan Cir suite 100

Boulder CO

WWW.AVANTITHERAPY.COM



Rotator Cuff Tears

Rotator cuff tears can be defined as full or partial tears of 1 or more of the 4 Rotator cuff muscles.

The rotator cuff is made up of the: supraspinatus, infraspinatus, teres minor and subscapularis muscles.

There are various degrees of rotator cuff tears:

- **Partial**
There is a partial tear in one or more of the muscles and can respond well to non surgical treatments such as physical therapy
- **Full**
There is a complete tear in the muscle. These tears may or may not require surgery depending on the individual. Physical Therapy can be helpful before surgery to help regain full motion of the arm as well as after surgery to decrease the time of recovery.

The goal of physical therapy is to restore motion in the shoulder as well as strengthen the muscles around the tear to help compensate for the injured muscles. This can be achieved by exercise as well as hands on work with a physical therapist.

Research has shown that if you choose to have surgery or not, physical therapy can help to improve your shoulder functions and allows you to get back to the activities that you enjoy! ([Seida, 2010](#) and [Vad, 2002](#))

Sign and Symptoms of Rotator Cuff Tear

- Decreased strength in the arm
- Pain with lifting the arm
- Pain with rotation of the arm
- Pain with lowering the arm
- Cracking or popping in the shoulder with motion
- Pain is located on the top of the arm and can extend down toward the elbow
- Difficulty with reaching overhead, getting dressed
- Pain at night especially when sleeping on the shoulder

Causes or Risk Factors for Rotator Cuff Tear

- Repetitive motions overhead
- Trauma, like a fall
- Heavy lifting
- Degeneration of the muscle or tissue



Signs and Symptoms

- Feeling of pain deep in shoulder
- Pain or clicking
- Shoulder feels loose or that it may slide out of place
- Pain or pinching with overhead motions
- Instances of shoulder giving out
- Shoulder dislocates

WHAT CAUSES INSTABILITY OR LABRAL TEARS?

Instability or labral tears occur most often when there is a sudden shoulder dislocation, direct blow to the shoulder, a fall on the outstretched arm, or with repetitive overhead motions such as tennis, throwing, or work related repetitive overhead tasks. These injuries may tear the cartilage (labrum) and ligaments that hold the arm (humerus) closely into the joint (glenoid fossa) leaving the shoulder able to dislocate with activity or be unstable during activity. Sometimes there is no trauma to the joint, but the joint structures are genetically too loose to support shoulder structures causing the instability and pain on motion.

INSTABILITY AND LABRAL TEARS

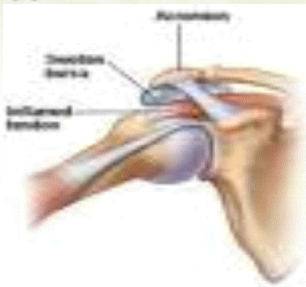
THE PHYSICAL THERAPY GOAL AND TREATMENT

- The goal of physical therapy is to create a strengthening and stretching program that will help the muscles provide the stability for the shoulder joint that the damaged ligaments or labrum is no longer providing. ([Steadman](#))
- The treatment program is focused on strengthening the rotator cuff muscles as well as the shoulder blade (scapular) muscles to compensate for the loss of support from the labrum and capsular ligaments. Patients can often get back to activities after 6-8 weeks of treatment depending on their activity level. ([Hovelius](#), 2009)
- If the strengthened muscles are not sufficient to support normal activity level, then a referral for a surgical consultation may be considered. After surgery physical therapy will provide rehabilitation for return to normal strength and coordination of the shoulder complex.

WHAT DO THE STUDIES SAY ABOUT TREATMENT FOR INSTABILITY?

At present, the studies indicate that most patients with instability should be initially treated with a nonoperative treatment approach as offered by Physical Therapists. Most patients have improvements in pain, quality of life, and function, and unnecessary surgeries are avoided. ([Hovelius](#) 2008) ([Wilk](#), 2009) It is important to note that immobilization of the arm to the side for 3-4 weeks did not improve the treatment outcomes. ([Hovelius](#), 2008)

SHOULDER IMPINGEMENT



WHAT ARE THE SYMPTOMS?

- Shoulder pain or stiffness when reaching hand behind the back or overhead
- Sudden sharp pain with lifting and reaching movement
- Pain radiating from the shoulder down the side of the arm
- Weakness of the shoulder muscles
- Night pain, and/or unable to sleep on the painful side

WHAT CAUSES SHOULDER IMPINGEMENT SYNDROME?

Shoulder impingement syndrome occurs when the soft tissues around the ball and socket joint are pinched between the arm bone (humerus) and the top of the shoulder blade (acromion of the scapula.) The tissues (the bursa or the rotator cuff tendons) can become inflamed and even frayed. These conditions may occur alone or in combination, and they can lead to bursitis and rotator cuff tears.

WHAT IS THE TREATMENT?

Studies say that Physical Therapy (exercise, mobilization and stretching) should be the first treatment tried along with anti-inflammatory medicines. Most people get better with this treatment.

- A 2009 study from Sweden treated patients on a wait list for orthopedic surgery with Physical Therapy consisting of exercise and manual therapy.
- 87% had a good to excellent result and only 10 out of 72 patients who completed the PT program went on to have surgery.
- They received between 3 and 24 treatments, with an average of 11 treatments.
- Work with heavy load or dominant shoulder being affected made no difference to the results
- Conclusion: “the first choice of treatment nowadays is non-operative, since we cannot tell from the start who will recover without surgery and who will not.” ([Virta 2009](#))

WHAT DOES THE RESEARCH SAY ABOUT SURGERY?

- Long-term patient satisfaction and functional outcome 8–11 years after subacromial decompression surgery has been reported at only 50% (52 patients with pain, 47 without pain). ([Klinterberg 2010](#))
- A 2010 review of 6 studies reported they “failed to show a difference in effectiveness between conservative and surgical treatment of subacromial impingement.” Conservative treatment was Physical Therapy and anti-inflammatories. ([Kuhn 2010](#))
- A study comparing exercise with subacromial decompression surgery found that the use of sick leave, unemployment and disability payments were about ½ as much in the PT group vs the surgery group in the first 2 years after treatment, and that “Self-reported outcomes after 4–8 years did not differ between treatment groups.” ([Haar 2005](#))
- A study titled “Arthroscopic Decompression and Physiotherapy Have Similar Effectiveness for Subacromial Impingement” drew this commentary from Drs. Jonathan Braman, MD and Evan Flatow, MD of Mount Sinai Medical Center, New York, NY “In essence, this study proves that impingement generally improves with non operative management” and “Research has shown that those with acute symptoms do better with physiotherapy than do those with chronic symptoms.” ([Haar 2006](#))

ADHESIVE CAPSULITIS OR FROZEN SHOULDER



SIGNS AND SYMPTOMS

- Tenderness to pressure over the shoulder joint, which may extend up towards the neck and shoulder blade
- Loss of motion in all planes, but almost complete loss of external rotation (elbow at your side and bent to 90 degrees, move your hand away from your body)
- Shoulder pain with movement and at rest

- Frozen shoulder or adhesive capsulitis is a condition that can last 18-30 months, and is divided into 3 phases ([Dias, 2005](#)):
 - 1) Inflammatory phase – this is the most painful phase, marked by progressively increasing mobility restriction which can last 10-36 weeks. The pain is present both day and night, and can interrupt sleep.
 - 2) Adhesive phase – pain subsides but the shoulder stiffness persists in all planes of movement, but particularly with external rotation. This phase can last 4-12 months.
 - 3) Resolution phase – stiffness gradually subsides over 12-42 months.
- Seventy percent of those afflicted with this problem are women between the ages of 40 and 60.
- 90% of patient with frozen shoulder can be successfully treated non-operatively ([Levine, 2007](#))
- People with diabetes have a higher incidence of frozen shoulder ([Dias, 2005](#))
- The sooner one presents for treatment, the less likely one will need surgical intervention. Patients in need of surgery averaged 9 months of symptoms prior to presenting for intervention vs. 5 months average for those who were able to avoid surgery. Most people are able to complete their course of treatment in 4 months. ([Levine, 2007](#))

TREATMENT

- Treatments that have been shown to be successful include stretching in all planes, joint mobilizations, laser ([Green, 2003](#)) and specific exercise prescribed by your physical therapist. ([Jewell, 2009](#))
- High grade joint mobilizations by your physical therapist have been shown to be effective at increasing mobility and decreasing disability. ([Vermeulen](#))
- Steroid injection and / or surgery are sometimes indicated in resistant cases.

REFERENCES

- Dias R, et al. Frozen shoulder: clinical review. *BMJ*. 2005;331:1453-1456.
- Edwards SL, Lee JA, et al. Nonoperative Treatment of Superior Labrum Anterior Posterior Tears Improvements in Pain, Function, and Quality of Life. *Am J Sports Med*. 2010; 38 (7): 1456-1461.
- Green S, Buchbinder R, Hetrick SE. Physiotherapy interventions for shoulder pain (Review). Cochrane Review, 2010. *Cochrane Database of Systematic Reviews* 2003, Issue 2.
- Haahr JP, Andersen JH. Exercises may be as efficient as subacromial decompression in patients with subacromial stage II impingement: 4–8-years' follow-up in a prospective, randomized study. *Scand J Rheumatol*. 2006;35:224–228
- Haahr JP, Østergaard S, Dalsgaard J, et al. Exercises Versus Arthroscopic Decompression in Patients with Subacromial Impingement: A Randomised, Controlled Study in 90 Cases with a One Year Follow Up. *Ann Rheum Dis*. 2005 May;64:760-4.
- Hovellius L, Saeboe M. Neer Award 2008: Arthropathy after primary anterior shoulder dislocation – 223 shoulders prospectively followed up for twenty-five years. *J Shoulder Elbow Surg*. 2009; 18: 339-347.
- Hovellius L et al. Nonoperative treatment of primary anterior shoulder dislocation in patients forty years of age and younger: a prospective twenty-five year follow up. *J Bone Joint Surg Am*. 2008; 90: 945-952.
- Jewell DV, Riddle DL, Thacker LR, Interventions associated with an increased or decreased likelihood of pain reduction and improved function in patients with adhesive capsulitis: a retrospective cohort study. *Physical Therapy* [Phys Ther], ISSN: 1538-6724, 2009 May; Vol. 89 (5), pp. 419-29
- Levine WN, Kashyap CP, Bak SF, Ahmad CS, Blaine TA, Bigliani LU. Nonoperative management of idiopathic adhesive capsulitis. *Journal of Shoulder and Elbow Surgery*, 2007;16(5):569-573.
- Klintberg IH, Svantesson U, Karlsson J. Long-term patient satisfaction and functional outcome 8–11 years after subacromial decompression. *Knee Surg Sports Traumatol Arthrosc* 2010.18:394–403
- Kuhn JE. Current Evidence Fails to Show Differences in Effectiveness Between Conservative and Surgical Treatment of Subacromial Impingement Syndrome. *J Bone Joint Surg Am*. 2010;92:474.
- Seida J, LeBlanc C, Shouten J, et al. “Systematic Review: Nonoperative and Operative Treatment for Rotator Cuff Tears.” *Annals of Internal Medicine* 2010; 153:246-255.
- (<http://www.steadman-hawkins.com/shoulder3/treat.asp>)
- Vad V, Warren R, Altche D, et al. “Negative Prognostic Factors in Managing Massive Rotator Cuff Tears.” *Clinical Journal of Sports Medicine* 2002; 12: 151-157.
- Vermeulen HM, et al. Comparison of high-grade and low-grade mobilization techniques in the management of adhesive capsulitis of the shoulder: randomized controlled trial. *Phys Ther*. 2006;86(3):355-368.
- Virta L, Mortensen M, Eriksson R, et al. How many patients with subacromial impingement syndrome recover with physiotherapy? A follow-up study of a supervised exercise programme *Advances in Physiotherapy*. 2009;11:166-173.
- Wilk KE, Obama P, et al. Shoulder Injuries in the Overhead Athlete. *J Ortho Sports Phys Therapy*, 2009;9(2):38-54