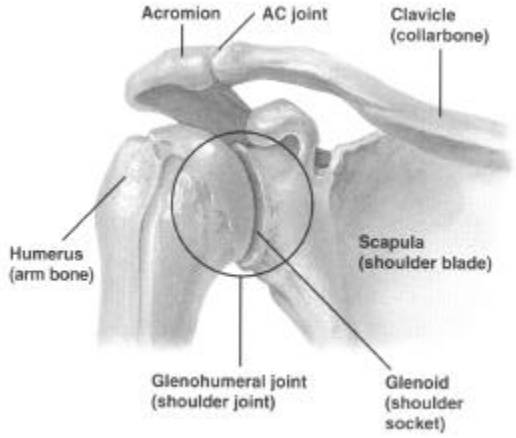
KAISER PERMANENTE

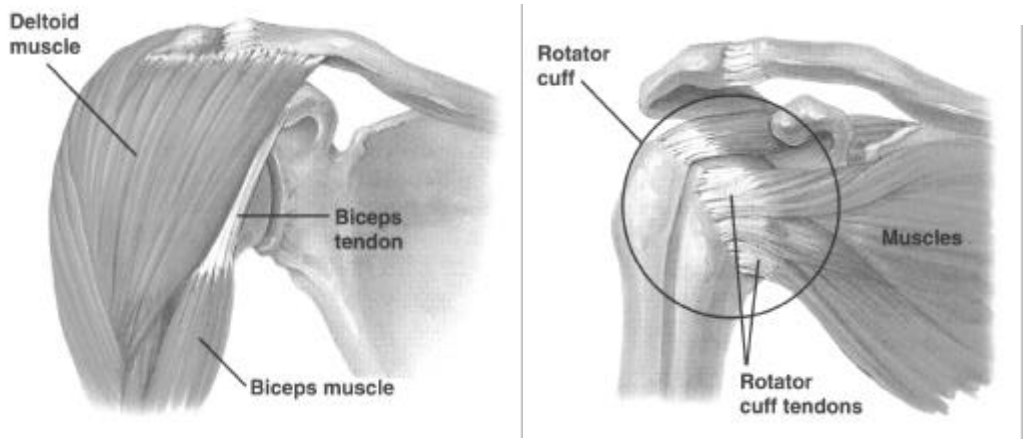
Shoulder Basics

ANATOMY

The shoulder is a ball and socket joint. The ball is the top of your upper arm bone or **humerus.** The socket is very shallow and is commonly referred to as the **glenoid.** There is also a bony shelf or fender called the acromion. By repetitive pinching of the rotator cuff, it is the major contributing factor to your shoulder problem. There is one other structure called the **bursa.** The bursa is a **thin,** fluid filled sack that helps to reduce friction among the other structures.



The shoulder is stabilized by a number of ligaments (thick, connective tissues that join bones), and a. group of muscles-commonly referred to as the rotator cuff. The muscles of the cuff - supraspinatus, infraspinatus, teres minor, and subscapularis, are attached to the bones by tendons. One, some, or all of these structures may be contributing to your shoulder problem.



Between the acromion and the rotator cuff lies a **bursa** that cushions the tendon from the bone. This small sac, filled with fluid the consistency of motor oil, is a common trouble spot.

Prevention and Treatment of Shoulder Dysfunction

PREVENTION

- Avoid aggravating factors; especially overhead activities
- Avoid aggravating positions:
  - Flying elbow position
  - Television watching position
- Keep loads close to body
- Maintain good posture (avoid hunched over position)
- Participate in a regular aerobic exercise program a minimum of three times per week.

TREATMENT

The most effective treatment is a combination of pain control, stretching, and strengthening.

PAIN CONTROL

Rest and restriction of aggravating activities
Use of anti-inflammatory medications (e.g., ibuprofen)
Use of heat or ice on a regular basis
Injection of Cortisone in order to control inflammation and pain (rarely done in children)

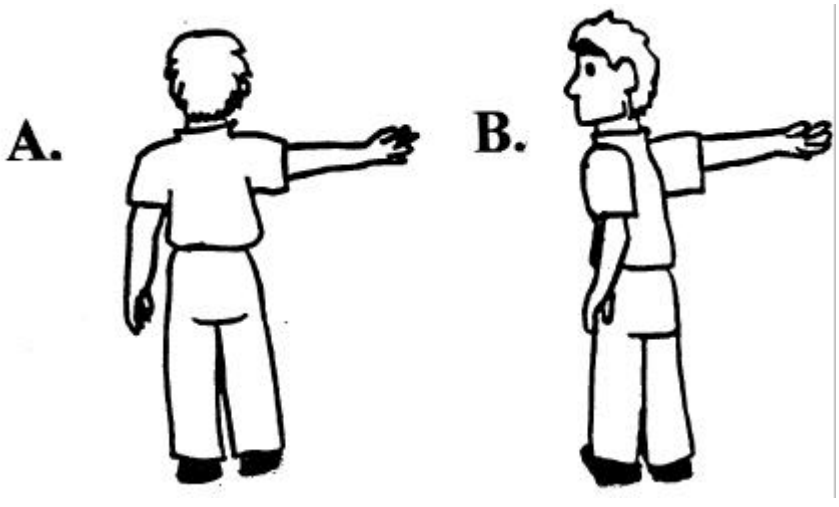
STRETCHING

Once pain control is achieved, exercises to restore normal motion and flexibility must be started. The reason for stretching is simple - unless the normal mechanics of the shoulder are restored, the problem will more than likely come back

There are four stretching exercises. Each exercise should be done in groups of five and held for 45 seconds. The longer you are able to hold the stretch, the more the connective tissues will remember to stay in the lengthened form. Repeat exercises five times daily.

Anterior Shoulder (front)

Stand facing the wall with the arm out-stretched to the side. Then, leaving arm against the wall, rotate body away from wall. (Try to turn body until it is perpendicular to the wall).



Cross Body

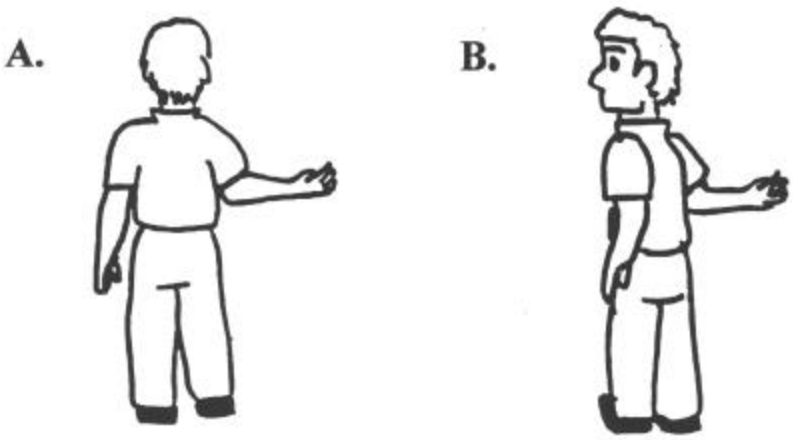
Reach hand on involved side towards your good shoulder. Using your good hand, pull the elbow of the involved side toward your good shoulder. Try to get your biceps muscle under your chin. (Note: It's recommended doing this exercise in front of a mirror to ensure that the shoulder stays level.)

INTERNAL ROTATION

Stand straight with the hand of our painful side flat against your back. With opposite hand, throw end of towel over your good shoulder and grab end of towel with the hand behind your back. Gently pull up on the towel with your good hand.

EXTERNAL ROTATION

Stand facing wall with arm at side and elbow bent at 90 degrees. Rotate body away from wall, pressing arm against wall. **(Note: This one hurts!)**



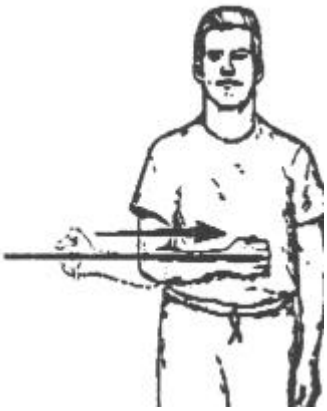
Strengthening

Once you have gained motion in your shoulder, it is important to do exercises to restore strength. The reason behind strengthening is essentially the same as the reason behind stretching. Unless you restore the normal mechanics of the shoulder, the problem will most likely return.

There are 3 strengthening exercises. These are done 2 times a day, ideally about 12 hours apart. You do 40 repetitions of each exercise, so start slowly

INWARD ROTATION:

Attach tubing to door knob. Stand with painful side towards the door. Hold arm against side with elbow bent at a right angle Rotate your forearm toward your body.



OUTWARD ROTATION

Attach tubing to door knob. Stand with good good side towards the door Hold painful arm ann at your side with elbow bent at a right angle. Rotate painful side away from body

SHOULDER ABDUCTION

Stand with feet slightly spread. Run rubber cord under one of your feet. Hold ends in hands with thumbs pointed down. Keep elbows locked in extension *(straight)*. Hold arms at *45* degree angle (off hip pockets). Lift arms straight up until just below shoulder height.