The shoulder is a very mobile joint, allowing a wide range of movement, but this comes at the expense of stability, resulting in an area that has a high incidence of problems. Muscle weakness and imbalances, stiffness, and trauma can cause rotator cuff muscle issues. These include muscle strains and tears, cartilage tears, dislocations, and fractures, which lead to pain and loss of function. These injuries range from being mildly aggravating to debilitating.

Approximately 20% of the general population has reported shoulder pain. The duration of these problems may range from less than a week to many months. 50% of people with shoulder problems have complaints of 6 months in duration. Roughly half of the people with shoulder complaints have had previous episodes of shoulder pain. Therefore, it is important to address shoulder pain early to help prevent the development of a chronic problem and ultimately disrupting performance of daily activities.

People commonly experience pain in areas around the shoulder blade, e.g., the upper and middle trapezius and rhomboid muscles. For college students, this pain is often a result of prolonged studying and computer usage. Students often study in poor, slouched postures with arms outstretched in front. Over time the shoulder and scapular muscles used to maintain these poor positions get overworked and become painful. Suggestions to address this type of pain are included in postural suggestions later in this handout.

Sometimes neck problems will “referred” pain into the shoulder and shoulder blade areas. In other cases nerves originating in the neck may become irritated, resulting in tingling, numbness, or pain that may be felt in the shoulder or shoulder blade. In severe cases symptoms may even travel down the arm to the fingers. If radiating symptoms occur, one should see their physician.

**ACUTE PAIN**

Pain may arise suddenly after a specific activity, such as trauma, heavy lifting, intense exercise or sports activity, or prolonged computer usage in a poor postural position. One may have difficulty raising the arm above shoulder level because of pain felt in the shoulder or even to the elbow. In this case the shoulder muscles essential for proper functioning of the shoulder (the rotator cuff muscles), may be strained or overworked with resulting soft tissue inflammation.

At times, one may experience pain for no apparent reason. If this is the case, one should think about a possible aggravating activity done in the previous day or two. Pain may not be experienced until a day or two after the aggravating activity.

Below are basic exercises for someone with pain of recent onset, when it is difficult to elevate the arm fully or without pain. Do not move into a painful range of motion with these exercises. If these cause increased pain or do not help decrease symptoms within 1-2 weeks, consult your health care provider.

**Exercise #1 (flexion – 3 phases)**

1. **1st Phase**
   - One can use a broomstick or long umbrella.
   - For each phase, progress to 3 sets of 10 reps pain-free before moving to the next phase. Then progress to 30 reps again in the next phase.
   - Avoid pain during the movement.
Exercise #2

**Beginning**
Place a rolled up towel under the elbow. Start with your forearm next to the stomach and rotate upwards within comfort, then return. Progress to 3 sets of 10 reps.

**Ending**

Exercise #3

With your elbow close to the body, rotate your forearm from your stomach to the outside and back. Perform 10 reps every 2-3 hours.

**Other Tips for Acute Shoulder Pain**

1) Use anti-inflammatory medication, such as ibuprofen, as suggested by your physician. Consult your physician for dosage beyond that recommended on the label.

2) Use ice (20 minutes at a time). If helpful, this can be repeated every 60-90 minutes.

3) Avoid aggravating activities. Examples include lifting weights, quick movements such as during sports, and repetitive or prolonged movements above the shoulder. Running may be aggravating. Prolonged computer work can worsen the pain. Whenever possible follow this advice: *if it hurts, don’t do it.*

4) Practice good posture. Use a low back support to avoid slouching. Keep the elbows supported on the chair armrests or desk when using the computer. Keep the elbows against the body, not outstretched to the front.

5) Lighten the backpack. shoulder bag and/or purse.

6) Avoid prolonged car driving.

7) Prolonged immobilization of the shoulder is generally not recommended since this may cause the shoulder to stiffen up.

**CHRONIC PAIN**

Shoulder pain may be gradual in onset, less specific and vague in location, and may originate because of an unknown reason. For this type of situation, stretching of the shoulder and strengthening of the rotator cuff and scapular muscles are frequently helpful. Rotator cuff strengthening promotes proper movement and mechanics in the joint. Scapular muscle exercises strengthen the shoulder’s “foundation” since the scapula serves as the basis upon which shoulder movement occurs.

**Improving Flexibility**

Tightness may occur in the shoulder joint and capsule, anterior chest muscles, or in surrounding scapular muscles. Improving flexibility of these structures helps to prevent “pinching” of internal structures in the shoulder joint. The following are stretches to consider: (Hold all the stretches for 30 seconds.)

**Cross body stretch**

Grasp above your elbow and bring your arm across your body and hold.

**Towel stretch**

Beginning position
Use your up hand to pull the lower hand up along the spine to feel a stretch in lower hand’s shoulder.

Ending position

**Corner stretch**

Keep forearms against the wall and the elbows at a 90 degree angle. Gently lean forward to feel a stretch in the chest muscles.

**Forward lean**

Place your palm on the table. Lean forward with your upper trunk while sliding your chair back to feel a stretch in the shoulder.

Hold all the stretches above for 30 seconds.
Improving Rotator Cuff Strength

**Exercise #1 (extension)**

Beginning position

Ending position

**Exercise #2 (abduction)**

Beginning position

Ending position

**Exercise #3 (ext. rotation)**

Beginning position

Ending position

**Exercise #4 (ext. rotation)**

Beginning position

Ending position

If popping, grinding, or pain occurs with #3, try dropping the elbow toward the floor a little. If this does not help, then try #4. Before using light weigh, first progress to performing 4 sets of 10 reps with just the weight of the arm.

**Exercise #5 (elevation)**

Raise the arm overhead with the thumb up.

Improving Scapular Strength

The previous stomach-lying exercises are also good for strengthening scapular muscles. Other more difficult exercises that strengthen scapular muscles include:

**Bent over row**

Progress to 3 sets of 10 reps.

**Plank**

Progress to a 30 second hold, making sure your back stays straight.

Using Resistance Bands

If resistance bands are available, then the following exercises can be performed. A helpful way to remember the sequence is to think about facing your body in the direction of numbers on a clock.
In the Gym

Weight machines in the gym also can be used for shoulder, arm, and scapular strengthening. Examples of possible exercises are beyond the scope of this handout. If you need assistance in this area, speak with a qualified health care professional at SportWell about appropriate machines to use and the proper techniques for using them.

Call your doctor if your condition does not improve after 2-3 weeks, if you have numbness or tingling down your arm or into your hand, or if your hand feels particularly cold. Further tests and evaluation may be needed at that time.

References

“Shoulder Function and 3-D Dimensional Scapular Kinematics in People With and Without Shoulder Impingement Syndrome,” Physical Therapy, Vol 86, Number 8, August 2006
“Treatment of myofascial trigger points in common shoulder disorders by physical therapy: A randomized controlled trial”, B M C Musculoskeletal Disorder 8:107, November 5, 2007

If you are a registered University of Illinois student and you have questions or concerns, or need to make an appointment, please call: Dial-A-Nurse at 333-2700

If you are concerned about any difference in your treatment plan and the information in this handout, you are advised to contact your health care provider.

Visit the McKinley Health Center Web site at: http://www.mckinley.illinois.edu