Standing with arms close to your body and elbows bent to 90 degrees, hands pointing straight ahead, slowly move arms so that hands point out to the side. Lean into a corner in this position with shoulder muscles relaxed. Lower your arms to your sides, then raise the injured arm overhead as shown, helping with your other hand.

## Strengthening Exercises

Exercises with Weights or Resistance. These exercises can be done with cans of food, 3 - and 5-pound dumbbell weights, or stretchable tubing or cord (available from medical supply and sporting goods stores) . Avoid raising arms above shoulder level. Bicep and tricep exercises may also be done with weights.


With elbows straight and thumbs turned toward floor, and arms about 30 degrees forward, slowly raise arms to just below shoulder level. Slowly lower arms to starting position and repeat.
Lie on your side as shown with injured shoulder up, holding elbow close against


Range of Motion
Repeat $\qquad$ Times $\qquad$ times/day
ribs. Slowly raise weight until it points to ceiling. Then lower to starting position, and repeat.

Stretching. Behind your back, hold one end of a towel with your good arm at shoulder level, as shown. Hold the other end with injured arm.
Raise towel with good arm as high as you can without pain. Hold 5 seconds, slowly lower, relax, and repeat.


Weights
Repeat_Times_times/day

Shoulder Bursitis and Tendinitis


THEINJURY
Shoulder bursitis/tendiitis is a common overuse injury in sports where the arm is used in an overhead motion (e.g., swimming, baseball). The pain--usually felt at the tip of the shoulder and referred down the deltoid muscle into the upper arm--occurs when the arm is lifted overhead or twisted. In extreme cases pain will be present all the time, and it may even wake the injured individual from a deep sleep.

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The shoulder is a closely fitted joint. The humerus (upper arm bone), certain tendons of muscles that lift the arm, and associated bursa (fuid-filled sac that cushions to prevent friction) move back and forth through a very tight archway of bone and ligament called the coracoacromial arch. When the arm is raised, the archway becomes smaller, pinches the tendons, and makes the tissue prone to inflammation.
Bursitis occurs when the bursa becomes inflamed and painful as surrounding muscles move over it.

Tendinitis occurs when the tendons or surrounding tissue becomes inflamed, swollen, and tender. Symptoms of bursitis/tendinitis can last for only a few days, but they may recur or become chronic.

## Contributing Factors

- Overuse. Repetitive overhead motions are the most common cause of the problem.
- Weak muscles. When the muscles are weak, more force is exerted on the tendons and bursa, causing inflamation and pain.
- Improper/inappropriate swimming or throwing techniques.
- Strenuous trainging. One hand throw may start the problem.
- Previous injuries to the shouIder.
- Loose shoulder joint.


## Treatment

Rest. Avoid doing things that hurt or make the pain worse the next day. Avoid the activity that started the problem. Your doctor may recommend a sling to immobilize the shoulder.

Ice. Apply an ice bag over a towel (or a bag of frozen peas) to your shoulder at least twice a day for 30 to 60 minutes. Always apply ice for 15 minutes after any activity using your arm.

Physical Therapy. Your doctor may send you to a physical therapist for exercises or other therapy. Exercises to strengthen the shoulder may help to prevent a recurrence.

Medication. Your doctor may prescribe anti-inflammatory/ analgesic medication to relieve pain and inflamation while your body's natural healing process goes on. An injection of cortisone into the shoulder may be recommended; it is usually a secondary treatment to supplement other therapy. After an injection, don 't attempt vigorous activities with your arm for 2 weeks.

Surgery. Surgery may be required to treat shoulder bursitis/tendinitis if it becomes chronic.

## Returning to Sports

General Principles. In severe cases all sports using the arm should be avoided. When you go back to your sport, go back slowly. Warm up well and do range-of-motion exercises. Avoid the football-throwing position and do not play for a long time. Slowly increase the intensity of your game. In some sports (e.g., tennis or squash), you can avoid the overhead motions.

Throwing Sports. Initially, an underhand or sidearm throw will be easier than an overhand throw. Warm up well. Throw easily, and gradually increase to harder throwing. Try to main-
tain a smooth throwing motion that will make use of the overall strength of your body.

Swimming. Breast stroke or side stroke will be easier than front crawl or butterfly strokes. Sometimes the back stroke is all right. Do any hard swimming (sprints) early in your swimming workout after you are warmed up, but before you are fatigued. Try changing your swimming style by rolling your body to the side.

## Exercises

Range-of-motion exercises must be done twice daily to keep the joint loose. These exercises consist of moving the joint, carefully, as far as it can go in all directions. After pain has subsided, shoulder muscles must be strengthened to prevent bursitis/ tendinitis from recurring.

DO EACH PRESCRIBED EXERCISE TWO T IMES A DAY OR. AS OfTEN AS YOUR DOCTOR RECOMMENDS.

## Range-of-Motion Exercises

Start with the " pendulum swing". Support yourself with your good arm as shown. Keeping your knees slightly bent, bend forward at the waist


## Range-of-Motion


and let your bad arm hang down (or dangle off the bed). Then make circles with your arm three to five times in one direction, then the other. Start with small circles and gradually make them larger.
With palm out, place the hand of your injured arm behind your back and reach up as high as possible, as though you were going to scratch your back with your thumb.


Range-of-Motion


The back portion of the shoulder joint can be stretched out in this position by gently pulling your arm across your body, as shown.

