

Shoulder Injury Prevention FactSheet

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Have you ever wondered how baseball pitchers can have such different throwing motions and create so many variations of a pitch? It's the shoulder, an amazing joint that can make the arm throw overhand or underhand at almost 100 miles per hour, and seconds later make full circles forward or backward. Yet the feats performed by this most mobile joint in the body can stress the shoulder in ways that make it prone to injury. A shoulder injury can occur as a result of a repetitive job, process, or operation. Employees involved in tasks such as painting walls, hanging curtains, repairing vehicles raised on a lift, filing, and lifting objects are at risk for shoulder injuries due to excessive overhead arm motion. According to the Bureau of Labor Statistics (BLS) 2003 Survey of Injuries and Illnesses, in Texas, while back injuries are the most frequently reported on-the-job injury, shoulder injuries kept people out of work the longest—30 days compared to the back—12 days.

Anatomy of the Shoulder

The shoulder joint is often thought of as a golf ball sitting on a tee: the large, rounded end of the humerus (upper-arm bone) moves within the scooped out glenoid head (or socket of the scapula bone in the back) next to the end of the clavicle (collarbone). But unlike a golf ball that is launched from a tee, the head of the arm must remain in a confined space and still move freely.

Pain is the most common symptom of a shoulder injury. Variable degrees of stiffness and a locking sensation may occur with or without pain. Sometimes a shoulder injury can lead to numbness or tingling down the arm.

What are some of the Warning Signs of a Shoulder Injury?

When experiencing pain in your shoulder, ask yourself these questions:

- Is the shoulder stiff? Can you rotate your arm in all the normal positions?
- Does it feel like your shoulder could pop out or slide out of the socket?
- Do you lack the strength in your shoulder to carry out your daily activities?

If you answer, “yes” to any one of these questions or are experiencing recurring shoulder, neck, or arm pain, you should consult a doctor. Early intervention is one of the best forms of treatment.

Some people will have a tendency to ignore the pain and “play through” shoulder injuries, which only aggravates the condition and possibly causes more problems. People also may underestimate the extent of the injury because steady pain, weakness in the arm, or limitation of joint motion can become almost second nature to them.



Workplace Safety

Many injuries are related to sustained postures and repetitive duties at work. There are several things employees can do to improve workplace safety and reduce the risk of shoulder injuries.

- When sitting, sit in a supportive chair with your buttocks back as far as possible in the seat and your thighs fully supported by the seat.
- Place your monitor directly in front of you at fingertips reach.
- Look straight at your monitor; eyes should be level with the toolbar.
- Bend your elbows and knees 90 degrees.
- Support your feet on the floor or footstool.
- Take posture breaks and exercise for several minutes every hour.
- Follow instructions with respect to proper lifting techniques and other safe work practices designed to prevent shoulder injuries.
- Use care when positioning the body and back before even mild exertion during lifting. Face the object to be lift, and keep the back as straight as possible by bending and using legs for lifting power.
- Do not reach to place or retrieve heavy objects stored up high; use a stable platform or step stool.
- Know when you need rest and relaxation during non-working hours and maintain good physical condition to avoid strains and sprains.

To help prevent shoulder injuries, employers should conduct a worksite evaluation, consider feasible control measures, and train employees. Any hazard identified by the evaluation should be corrected or minimized to the ex-

tent feasible. Engineering controls (work station redesign, adjustable fixtures, or tool redesign) and administrative controls (changes in procedures, job rotation, work pacing, or breaks) are alternatives that should be considered.

Minimizing the Pain of an Injury

After injuring your shoulder, pain is a useful indicator to guide how much to use it. Unless your doctor or physical therapist gives you other instructions, limit activities and arm motions that are aggravating the pain. The following are some specific suggestions to help minimize the pain of a shoulder injury:

- Eliminate heavy lifting and raising arms above shoulders.
- Lift items close to the body.
- Only lift light weights and only below shoulder level.
- Practice good posture when doing computer work, assembly work, or other activities that involve the arms.
- Limit the amount of time that you restrict arm movement with a sling, as you can develop frozen shoulder (stiff shoulder joint).

Exercise to Maintain Healthy Shoulders

Keeping physically fit with a balanced program of aerobic exercise and stretching and strengthening all body parts can help to prevent shoulder injuries. If you think you have injured your shoulder, consult a doctor or physical therapist before starting an exercise program. The following practices can prevent injury by warming-up shoulders before exercise or work:

- Apply heat to shoulder muscles prior to exercise. Heat prepares muscles and tendons for exercise. For example, take a warm shower for 10 to 15 minutes before exercise.
- Keep arm below shoulder height while doing arm stretches.
- Gradually increase movements during shoulder warm-up—big circles, across-body movements, trunk twists, shoulder blade rolls and forward and backward squeezes.
- While sitting or standing, keep arm vertical and close to body. Pendulum stretching exercises relieve pressure on the rotator cuff. Allow arm to swing back and forth in a small diameter (about 1 inch). As symptoms

improve, the diameter of the swing may be increased. Initially perform the exercise with just the weight of your arm. As shoulder pain improves, progressively add more weight—5 to 10 pounds (a filled gallon container weighs 8 pounds). Perform exercise for five minutes once or twice a day.

- Perform muscle-strengthening exercises. After sustaining a shoulder injury, begin shoulder-muscle toning exercises about one to two weeks after doing pendulum stretching exercises. Use elastic exercise bands for a variety of arm exercises. For example, attach band to a doorknob. Then hold your elbow close to your side at a 90-degree angle, grasp the band and pull toward your waist. Hold for five seconds. Do 15 to 20 repetitions each day.

This fact sheet was published with information from the Harvard Medical School's Consumer Health Information, the University of Pittsburgh Medical Center, and the Texas Department of Insurance (TDI), Division of Workers' Compensation (DWC) and is considered factual at the time of publication.