

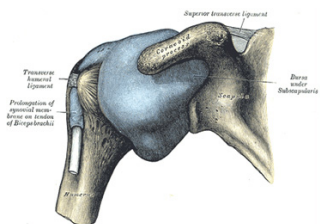
Golden Hills

Orthopedic and Sports Physical Therapy

august 2006

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Preventing and Treating Injuries to the Shoulder



Our Mission...

To further the prevention, diagnosis and treatment of movement dysfunction in order to enhance the physical health and functional abilities of our patients.

To maximize the patient's potential for regaining full physical health by providing rehabilitation through the use of advancements in physical therapy techniques and state-of-the-art equipment.

To establish a self-management program for the patient through education and a personalized home exercise program for each individual to enable the patient to maintain their physical health at home and at work.

Physical Therapy for Shoulder Injuries

Golden Hills specializes in treating shoulder injuries in athletes, children and the elderly. Call us for more information!
(408) 274-0888

The Shoulder in Perspective

Comprising three bones, four joints and a dynamic system of muscles, tendons and ligaments, it's no wonder that the shoulder poses a number of clinical challenges to physicians and other caregivers when a patient presents with an injury. In fact, the shoulder is the most complex joint in the human body, and the special biomechanical properties that make it so versatile also make it particularly susceptible to injury and difficult to treat when an injury occurs.

Whether caused by repetitive athletic stress, acute trauma, arthritis, or everyday wear and tear, a shoulder injury can lead to significant pain, short-term loss of limb function and long-term disability for the patient. At Golden Hills, our mission is to work with our community of referring physicians both to prevent shoulder injuries in patients through proper exercise and training and to effectively rehabilitate injuries once they occur.

With insights and information provided by Saad Shaban, PT, founder and owner of Golden Hills, this special 2-issue series (August and September) will help you understand and respond to injuries with appropriate evaluation and treatment, and appreciate the important role physical therapy plays in helping patients achieve their recovery goals.

Anatomy of the Shoulder

The shoulder joint is composed of three bones: the clavicle (collarbone), the scapula (shoulder blade) and the humerus (upper arm bone).

Two joints facilitate shoulder movement. The acromioclavicular (AC) joint is located between the acromion (the part of the scapula that forms the highest point of the shoulder) and the clavicle. The glenohumeral joint, to which the generic term "shoulder joint" usually refers, is a ball-and-socket joint that allows the arm to rotate in a circular fashion or to hinge out and up away from the body. (The "ball" is the top, rounded portion of the humerus; the "socket," or glenoid, is a dish-shaped part of the outer edge of the scapula into which the ball fits.)

In addition, the sternoclavicular (SC) joint (between the sternum and the collar bone) creates the only bony connection between the shoulder and the main skeleton, and the scapulothoracic (ST) joint is the "false joint" between the scapula and the rib cage that it rides over.

Arm movement is further facilitated by the ability of the scapula to slide both laterally and vertically along the rib cage. The capsule is a soft tissue envelope that encircles the glenohumeral joint. It is lined by a thin, smooth synovial membrane.

(Continued on reverse...)

Preventing and Treating Shoulder Injuries (Continued)

The bones of the shoulder are held in place by muscles, tendons and ligaments.

Tendons are tough cords of tissue that attach the shoulder muscles to bone and assist the muscles in moving the shoulder. Ligaments attach shoulder bones to each other, providing stability. For example, the front of the joint capsule is anchored by three glenohumeral ligaments.

The rotator cuff is a structure composed of tendons that, with associated muscles (the supraspinatus, infraspinatus, teres minor and subscapularis), holds the ball at the top of the humerus in the glenoid socket and provides mobility and strength to the shoulder joint.

Two filmy sac-like structures called bursae permit smooth gliding between bone, muscle and tendon. They cushion and protect the rotator cuff from the bony arch of the acromion.

An Epidemic of Shoulder Injuries

According to the American Academy of Orthopaedic Surgeons, about four million people in the United States seek medical care each year for shoulder sprain, strain, dislocation or other problems. The shoulder is particularly prone to injury because its extraordinary range of motion also makes it unstable. It is easily subject to injury because the ball of the upper arm is larger than the shoulder socket that holds it. To remain stable, the shoulder must be anchored by its muscles, tendons and ligaments. Some shoulder

problems arise from the disruption of these soft tissues as a result of injury or from overuse or underuse of the shoulder. Other problems arise from a degenerative process in which tissues break down and no longer function well.

Shoulder pain may be localized or may be referred to areas around the shoulder or down the arm. Disease within the body (such as gallbladder, liver or heart disease, or disease of the cervical spine of the neck) also may generate pain that travels along nerves to the shoulder.

Some of the most common shoulder injury conditions include:

- **Dislocation**
- **Separation**
- **Tendonitis, bursitis and impingement syndrome**
- **Rotator cuff tear**
- **Frozen shoulder (adhesive capsulitis)**
- **Fracture**
- **Arthritis of the shoulder (glenohumeral joint)**

For each of these injury conditions, physical therapy plays an absolutely critical role in the overall patient care plan.

In next month's issue, we will discuss each common injury condition in more detail and provide guidance with respect to diagnosis and treatment, including a discussion of how the right physical therapy regimen can greatly improve the patient's chances of achieving a full recovery.

Patient Tips

PRICE: Temporary Treatment of Musculoskeletal Problems

PRICE—Protection, Rest, Ice, Compression and Elevation—is the mnemonic for the basic treatment principles of musculoskeletal problems, including shoulder injuries:

- **Protection:** Guard the shoulder to prevent further injury.
- **Rest:** Reduce or stop using the injured area for 48 hours.
- **Ice:** Put an ice pack on the injured area for 20 minutes at a time, 4 to 8 times per day. Use a cold pack, plastic bag or ice bag filled with crushed ice that has been wrapped in a towel.
- **Compression:** Compress the area with bandages, such as an elastic wrap, to help stabilize the shoulder.
- **Elevation:** Keep the injured area elevated above the level of the heart. Use a pillow to help elevate the injury.

If symptoms persist, the patient should promptly contact Golden Hills at (408) 274-0888, or their treating physician. More serious injuries should receive immediate medical attention.

