



## What Is The Link Between Posture and Shoulder Pain?

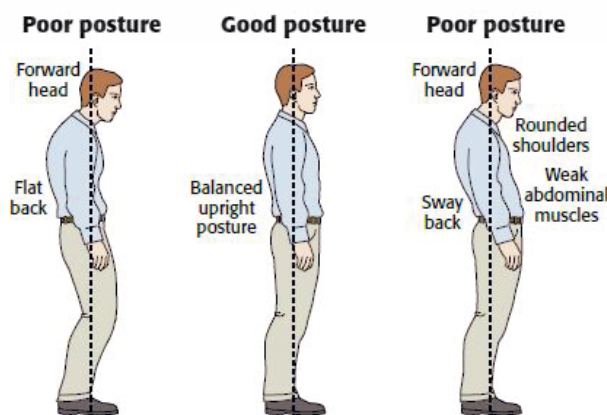
By: Jamie Douglass, DPT, for All-Care Physical Therapy Center's Brick Location

**M**any patients walk through the door at All Care Physical Therapy with complaints of shoulder pain. While there are many culprits of shoulder pain and injury, one factor that may be originally overlooked is poor posture.

A forward head posture with rounded shoulders can stress joints, muscles, ligaments, and other soft tissue structures in ways that they were not originally meant to be stressed. As seen with the provided picture, there are many biomechanical changes that occur when our posture changes. Our muscles are designed to work best at a certain length, and when we contract and relax them throughout our daily routine and during exercise they are working at their optimal function. When the head begins to push forward and the shoulders round, an overstretching occurs to the muscles in the back and a shortening of the muscles in the front of the body. This causes muscle imbalance; leading to fatigue, muscle and soft tissue changes, and pain. There are many injuries and syndromes that can develop due to poor posture, but this article will focus on shoulder pain and impingement and how to address these impairments. Some factors that can lead to forward head posture are sleeping with too many pillows, poor positioning with prolonged computer use or television watching, sports or motor vehicle injuries, and prolonged immobility. However, some of the effects of forward head posture can be addressed with proper exercise to give the patient significant, long lasting relief.

### How is the shoulder affected by poor posture?

The shoulder is a multi-plane joint, meaning it can move in multiple directions. Stop for a moment and think of all the activities that are completed in a day with shoulder movement; from brushing your hair and teeth in the morning to completing push-ups at the local gym, the shoulder is constantly moving the upper limbs to complete even the simplest of tasks. The glenohumeral, or shoulder joint, requires strong, functioning muscles to carry out these actions. The rotator cuff, deltoids, biceps and triceps



and scapular (shoulder blade) muscles all work together with different actions to achieve upper limb movements. The second part of shoulder movement occurs at the scapulothoracic joint, or the movement of the shoulder blade on top of the ribs. The muscles that are responsible for squeezing and rotating the shoulder blades includes the rhomboids, serratus anterior, levator scapulae and trapezius muscles. The scapulothoracic and glenohumeral joint move in sync when functioning properly, which allows the arm to reach fully overhead. However, when poor posture occurs, these muscles fall out of sync and compensations and abnormal movements begin to occur.

As the shoulders begin to round forward, the scapulae, or shoulder blades, begin to move apart and the muscles overstretch posteriorly. As the shoulder blades continue forward, they begin to limit the amount of room the rotator cuff tendons can move. This small space can lead to fraying, catching, and possible tears. When trying to complete reaching over head tasks, the humerus or arm bone, moves up in the ball and socket. When the shoulders become rounded, and that rotator cuff space shrinks, the humerus can cause the tendons to hit into the acromion with overhead movements. This is called impingement, and can be very painful.

### How can we fix the pain?

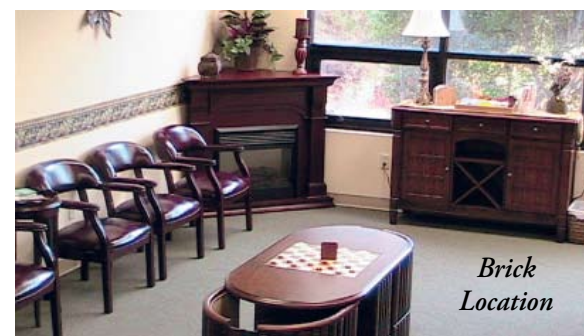
By the time pain is occurring from shoulder impingement due to forward head posture, there is significant inflammation and muscle imbalance. The first step is to relieve and manage pain. Physical therapists will use ice and phonophoresis (ultrasound with hydrocortisone) to reduce inflammation, deep tissue massage and manual



stretching/range of motion during sessions to help alleviate aggravation of the tendons. To address biomechanical changes of forward head posture takes time. Exercises are used to stretch the front of the arms and chest and strengthen the overstretched muscles in the back. Forward head posture becomes a habit over time, and the exercises as well as self-body awareness are trying to overcome those bad habits and create better ones. To increase proper, upright posture usually takes about 4-6 weeks for a noticeable improvement. However, it will now be a lifelong task to maintain good upright posture in order to minimize the possibility of shoulder pain returning.

At All-Care Physical Therapy the Physical Therapists have the knowledge and experience for treating shoulder pain and helping to correct postural issues. They will develop treatment programs based on a patient's individual symptoms and goals to help you get back to a pain-free lifestyle.

**To make an appointment at the Brick location, please call 732-451-0010.**



Brick Location

### Jamie Douglass, DPT, Brick Physical Therapist

Jamie graduated from the Richard Stockton College of New Jersey in 2008 with a Bachelor's of Science in Biology. She continued her physical therapy education at Rutgers-Camden, UMDNJ, and received her Doctorate of Physical Therapy in May 2012.

Jamie has had clinical experiences in acute, sub-acute, and outpatient settings, as well as a 14-week affiliation with Children's Specialized Hospital, focusing on the pediatric population. Her areas of interest include sports medicine, especially post-ACL reconstruction in female athletes, joint replacement, manual therapy techniques and the neurological and orthopedic pediatric population. Jamie believes in patient centered practice, and incorporates patient's personal goals into treatment plans. She also feels it is important to keep up with current evidence in order to ensure optimal patient outcomes.



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