History of Rotator Cuff Disease and Pathology

Some people are predestined to have shoulder problems. Why? To a large degree, the shape of the acromion (top of the shoulder blade) plays an important role in the health of the rotator cuff tissue. There are three types of acromion: flat, hook shaped and normal. The flat and hook versions carry a higher risk of possible injury, with the hook style posing the greatest threat. If you have a flat or hook shaped acromion, there is less room for the soft tissue (muscle and tendon) to glide and move during arm motion. Over time, this naturally leads to more friction and wear and tear. This may lead to an eventual tear.

Typically, most people experience an acute onset of shoulder pain. It is often related to vigorous repetitive activities or trauma such as lifting, painting, throwing, falling, or jamming the shoulder. This type of pain is generally labeled tendonitis or bursitis. You may have pain if lying on the affected side, reaching up overhead, reaching behind the back, driving or attempting to lift with the arm out away from the body.

Tendonitis usually responds well to rest, anti-inflammatory medication, ice and rotator cuff specific strengthening. Recovery time may range from 4 weeks to several months, depending upon the compliance of the individual, the onset of symptoms prior to treatment, the age of the individual, and whether or not there are any physical changes in the tendon (structural changes including thickening or scar tissue formation are referred to as tendonosis). X-rays are important as they will reveal any arthritic change.

Rotator cuff tears present differently. The hallmark signs of a tear are nocturnal pain, loss of strength, and inability to raise the arm overhead. Also look for a "shrug sign," in which the person uses the upper trap to raise the arm because the rotator cuff is not able to depress the humeral head effectively. Rotator cuff tears are most common in men age 65 and older. Tears and/or injury are typically related to degeneration, instability, bone spurs, trauma, overuse, and diminished strength/flexibility related to the aging process. However, youth are also at risk for injury if they are involved in repetitive overhead sports, including swimming, volleyball, baseball, softball, tennis, gymnastics, etc.

Many people can function adequately with a torn rotator cuff provided they have a low to moderate pain level. The primary reason for performing rotator cuff surgery is to alleviate pain rather than to restore function. It is common for post surgical patients to lose some mobility/ range of motion. Strength recovery is dictated by the size of tear, quality of the torn tissue at the time of surgery, time elapsed between injury and repair, and the surgeon's ability to recreate the proper anatomical relationship.

Recovery following rotator cuff repair may take up to 18 months. However, most people are able to return to the majority of their activities of daily living in 3-6 months.

- **Prone Lower Trap Raise –** This strengthens the lower trap, which is often weak and fatigues quickly. This muscle depresses the shoulder blade and prevents impingement. Using a stability ball, raise the arms up in a 45 degree angle as far as the shoulders allow without discomfort. Pause at the top, and lower slowly to the starting position. This is an awkward motion, and it is best to use a light weight and focus on controlling the motion. It is also acceptable to do this exercise lying face down on a bench or the edge of your bed with only the affected side. Perform 2 sets of 15 repetitions.

- **Prone Horizontal Abduction Raise –** This strengthens the middle trapezius and rhomboids, which promote good posture**.** Using a stability ball, raise the arms out away from the body until they are near parallel to the floor. Keep the palms down and pinch the shoulder blades together at the top of the motion. Lower slowly to the starting position. It is also acceptable to do this exercise lying face down on a bench or the edge of your bed with only the affected side. . Perform 2 sets of 15 repetitions.