



ARM AND SHOULDER STRENGTHENING

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Muscular imbalance, weakness, or fatigue can lead to excessive stresses, altered mechanics, and eventually tissue breakdown and injury. Many common arm and shoulder injuries can be prevented with a simple strengthening program. Ideally, a physical therapist should evaluate an athlete to identify specific strength or endurance deficits to create an individualized program to minimize the chance of injury or re-injury and optimize performance for an athlete. ValleyCare is proud to offer an injury prevention program designed for just that purpose, details available at: http://www.valleycare.com/programs/pasm_pmssub.html#knee

Generalized exercise programs do exist to target and restore proper balance to the most commonly affected muscles in throwing athletes. Although strength/flexibility of the legs and core are also critical for the throwing athlete, the following exercise program is focused solely on the throwers arm strength. This exercise program was developed based on clinical research into muscle activity in throwing athletes by Kevin Wilk and the American Sports Medicine Institute. The program is called the “Thrower’s Ten” program. The Thrower’s Ten includes 10 groups of activities with a total of 19 exercises for the shoulder, elbow, wrist, and hand. It has been featured in many online websites, including the American Sports Medicine Institute (<http://www.asmi.org/>) and Lance Armstrong’s foundation (<http://www.livestrong.com/article/332847-good-exercises-for-pitchers/#ixzz1sDfBnR21>).

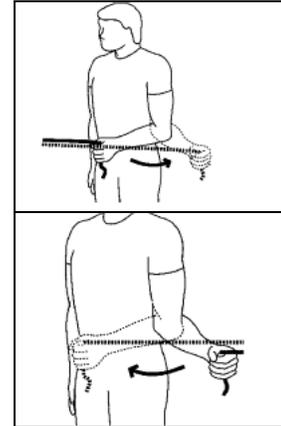
A good place to start in this program is with some of the basic stabilizing muscles of the shoulder, often referred to as the “rotator cuff.” The two exercises below directly target the rotator cuff and can add stability to the shoulder joint during dynamic activities such as throwing. They can minimize the chance of injury in all the joints of the arm as well as improve power and speed during throwing. All you need is a piece of elastic band or tubing. Perform these 4-5 days a week pre-season and then maintain your stability in season by keeping up with them twice a week.

1. EXTERNAL ROTATION

Standing with elbow fixed at side bent at 90 degrees with arm across front of body. Grip tubing handle while the other end of tubing is fixed. Pull out with arm, keeping elbow at side. Return tubing slowly to the starting position and repeat. Perform 3 sets of 20 repetitions.

2. INTERNAL ROTATION

Standing with elbow at side fixed at 90 degrees and shoulder rotated out, Grip tubing handle while other end of tubing is fixed. Pull arm across body keeping elbow at side. Return tubing slowly and controlled. Perform 3 sets of 20 repetitions.



A complete guide to The Thrower's Ten is available at the following website:

<http://orthodoc.aaos.org/JonathanEFowMD/THROWERS%20TEN%20EXERCISES.doc>. For personal instruction in such exercises, enroll today in ValleyCare's Injury Prevention Program for middle school, high school, and collegiate athletes. Call 925-373-4019 to schedule.