

Weightlifting and Throwing: Keeping Your Shoulder Healthy

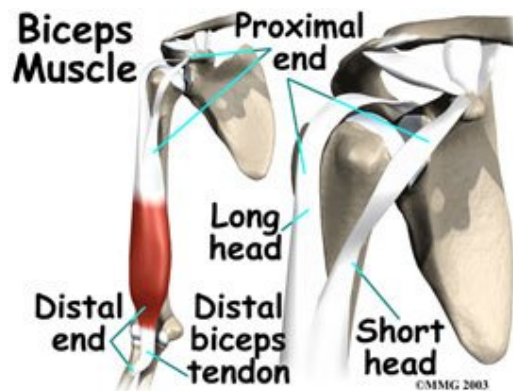
Jump rope 3-4x per week with the following program:

- ✓ 5 sets of 2 minutes of jumping rope (~300 jumps) with 1 minute rest periods.
- ✓ Getting enough rest between the 2-minute sets will help train the body to recover more quickly between bouts of high intensity movements like pitching.

Do ‘Ballistic Six’ exercises with a 2-lb medicine ball 3-4x per week to build rotator cuff stability and explosion during throwing.¹

Weightlifting considerations

- ✓ No biceps curls. One of the biceps tendons attaches to the shoulder capsule. If this muscle is tight, it can pull on and tear the shoulder capsule (called a SLAP Lesion).
- ✓ Triceps Extension are allowed because extension of the triceps muscles contributes to overall velocity.³
- ✓ Limit weight on military press exercises as it is the most common exercise to cause injuries due to growth plate injuries in the shoulder.²
- ✓ Do Bench Press / Cable Row sets in a 1:2 ratio to ensure symmetric development of both flexor and extensor trunk muscles (pectoralis (chest) and latissimus (lat) muscles)
 - The chest and lat muscles are both critical in the baseball throwing motion³ so weight training to increase their strength will be beneficial.
- ✓ Lunges MUST be the Primary Leg Exercise because it will help functionally for both pitching and overall running.
 - The recommended lunge technique is to hold a medicine ball or weight plate in front of the chest or overhead to help *keep the back straight throughout the movement.* Try to work up to holding a 45-lb. plate.



Reference:

1. Carter, A. B., T. W. Kaminski, et al. (2007). "Effects of high volume upper extremity plyometric training on throwing velocity and functional strength ratios of the shoulder rotators in collegiate baseball players." J Strength Cond Res 21(1): 208-15.
2. Baechle TR. Essentials of Strength Training and Conditioning. National Strength and Conditioning Association. 2000. p. 177.
3. Jobe, F. W., D. R. Moynes, et al. (1984). "An EMG analysis of the shoulder in pitching. A second report." Am J Sports Med 12(3): 218-20.