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## Shoulder, Elbow & Hand Surgery

American Shoulder and Elbow Surgeons American Society for Surgery of the Hand American Academy of Orthopedic Surgeons

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## **Progressive Throwing Program**

The program delineated here covers 2  $\frac{1}{2}$  to 3 months. For less serious shoulder injuries, it can be accelerated. At each step, the following 3 processes must be performed:

- Warm-up: Use heat as a warm-up prior to stretching and throwing (hot pack, whirlpool, hot shower, etc.). The heat promotes soft tissue flexibility, increases circulation, and activates some of the natural lubricants of the body.
- Stretching: Perform shoulder stretches after heat and then proceed with a throwing program.
- Cool Down: Apply ice after throwing to decrease cellular damage and lessen the inflammatory response

**Step 1.** Toss the ball (no wind up) 30 to 40 feet. Work out 3 to 5 times, 10 to 15 minutes per session for a 1-week period.

**Step 2.** Lob the ball (playing catch with little or no wind up) no more than 30 feet. Continued 3 to 5 times, 10 to 15 minutes per session, for 1-week.

**Step 3.** Increase the distance to 40 to 50 feet while still lobbying the ball (easy wind-up). Schedule alternative days for throwing and strengthening program. Increase the throwing time to 15 to 20 minutes per session, 2 to 3 times for 1-week.

**Step 4.** Increase the distance to 60 feet while still lobbying the ball, with occasional straight throw at not more then  $\frac{1}{2}$  speed. Increase to throwing time to 20 to 25 minutes per session, 2 to 3 times per week.

**Step 5.** Perform long, easy throws from the mid-outfield (150 to 200 feet) getting the ball barely back to home plate on 5 to 6 bounces. This to be performed for 20 to 25 minutes per session on 2 consecutive days. Rest the arm for 1 day. Repeat 3 times over a 9- day period, then progress to the next step if able to complete the sequence without pain or discomfort throw for 2 days, rest 1 day; throw 2 days, rest 1 day, etc.

**Step 6.** Perform long, easy throws from the deepest portion of the outfield, with the ball barely getting back to home plate on numerous bounces. This is to be performed for 25 to 30 minutes per session on 2 consecutive days. Rest for 1 day. Repeat the same routine over a 9-day period and progress to the next step if there is no pain or discomfort.

**Step 7.** Perform stronger throws from the mid-outfield, getting the ball back to home plate on 3 to 4 bounces. Do this for 30 to 35 minutes per session on 2 consecutive days. Rest for 1-day. Repeat the same routine over 9-day period. If there is no pain or discomfort progress to the next step.

**Step 8.** Perform short, crisp throws with a relatively straight trajectory from the short outfield back to the home plate on 1 bounce. These throws are to be performed for no more than 30 minutes on 2 consecutive days. Rest 1 day. Repeat over a 9-day period.

**Step 9.** Continue with the body conditioning program, i.e., strength, flexibility, and endurance. For days in which both strengthening and throwing are performed, schedule throwing in the morning and strengthening in the afternoon. If able to throw without pain or discomfort, proceed to the next step.

**Step 10.** Return to throwing from the normal position (for example, the mound). The throw should be at ½ to ¾ for speed, with emphasis on technique and accuracy. Throw for 2 consecutive days, and the rest for 1-day. Throwing session should not last longer than 25 minutes. Repeat this sequence 3 times over the next 9 days, then advance to the next step if there is no pain or discomfort.

**Step 11.** Throw from the normal position at <sup>3</sup>/<sub>4</sub> to full speed. Throw for 2 consecutive days and rest for one day; continue this sequence for 9 days. Session should not last longer than 30 minutes.

**Step 12.** Simulate a game-day situation for 6 innings. Warm-up with appropriate number of pitches and throw for an average number of innings, taken the usual rest breaks between innings. Repeat this simulation a couple of times with a 3-to 4- day rest between simulations.