

Interval Throwing Program for Softball Players

The Interval Throwing Program (ITP) is designed to safely restore motion, strength, and confidence in the throwing arm following injury or surgery. Progression occurs gradually through controlled throwing distances, only after the athlete's physician clears them to resume throwing. The program should be completed under the guidance of the rehabilitation team (physician, physical therapist, and athletic trainer).

The ITP minimizes the risk of re-injury by emphasizing proper warm-up, stretching, and gradual progression. Key principles include:

1. Throwing involves the entire body—from the feet and legs through the pelvis, trunk, shoulder, elbow, and hand. A safe return to throwing must consider the whole kinetic chain.
2. A stepwise progression of throwing reduces the chance of re-injury.
3. Proper warm-up is essential.
4. Fatigue is a major cause of injury.
5. Correct throwing mechanics reduce stress and risk.
6. Baseline requirements before starting include:
 - Pain-free range of motion
 - Adequate strength
 - Sufficient endurance

Because every athlete recovers differently, there is no set timetable for completing the program. Athletes are often eager to return quickly, but following the structured program is crucial to avoid setbacks. Advancing too soon increases the risk of re-injury and delays recovery.

Pain Guidelines: Mild soreness or diffuse aching in the muscles and tendons is normal. Sharp or localized joint pain is not. If sharp pain occurs, stop throwing until it resolves; if it persists, contact your physician.

Weight Training: Supplement the ITP with a high-repetition, low-weight program. Strengthening should balance anterior and posterior shoulder muscles, with special focus on the posterior rotator cuff. Weight training will not increase throwing velocity but will improve endurance and reduce injury risk. Always perform weight training *after* throwing, on the same day, and use recovery days for stretching and flexibility. This “maintenance program” should continue into the season.

Individual Variability: Athletes should progress only when they can complete each step without pain. There is no strict calendar—some may throw every other day, others every third or fourth day, depending on symptoms. The key rule: *listen to your body*.

Warm-Up: Perform one set of 10 repetitions of rotator cuff (RTC) exercises before throwing. Light jogging until a sweat develops also helps prepare the muscles and joints.

Stretching: Stretch all major muscle groups—legs, trunk, back, neck, and arms—before throwing. Include capsular stretches and L-bar range of motion drills.

Throwing Mechanics: Maintaining proper mechanics is critical throughout progression. The Crow-Hop method should be used from the start, as it encourages whole-body mechanics and reduces arm stress. Flat-footed throwing increases strain and risk of re-injury. When progressing to mound or position-specific throwing, continue emphasizing proper mechanics. Coaches and sports biomechanics (if available) can be valuable resources for reinforcing correct technique.

Batting:

The timeline for returning to batting depends on the nature of the athlete's injury and should be determined by the physician. It is important to recognize that the stresses placed on the arm and shoulder during batting differ from those during throwing. Return to batting should follow a similar gradual progression as the throwing program: beginning with dry swings, then advancing to tee work, soft toss, and finally live pitching.

Summary:

When the Interval Throwing Program (ITP) is used alongside a structured rehabilitation plan, athletes can safely return to full competition while minimizing the risk of re-injury. The program should always be adapted to the individual athlete's needs. A comprehensive approach—including a maintenance strength and flexibility routine, proper warm-up and cool-down, correct throwing mechanics, and a progressive return to both throwing and batting—will best support the softball player's safe and successful return to play.

Phase I for Pitchers

Throwing program should be performed every other day with one day of rest in between (i.e. Monday, Wednesday, Friday). Each Step should be performed for two throwing days before moving on to the next Step. For example, Step 1 should be performed on Monday and Wednesday, and then Step 2 performed on Friday and the next Monday with the same pattern being followed for subsequent Steps. Any time a Step is painful, stay at that step or go back to a previous step. Do not advance until the step is performed for two consecutive throwing days pain free.

30' Phase	45' Phase	60' Phase	90' Phase
<p><u>Step 1:</u></p> <p>A) Warm-up throwing B) 30 ft, 20 throws C) Rest 15 min D) Warm-up throwing E) 30 ft, 20 throws</p> <p><u>Step 2:</u></p> <p>A) Warm-up throwing B) 30 ft, 20 throws C) Rest 10 min D) Warm-up throwing E) 30 ft, 20 throws F) Rest 10 min G) Warm-up throwing H) 30 ft, 20 throws</p>	<p><u>Step 3:</u></p> <p>A) Warm-up throwing B) 45 ft, 20 throws C) Rest 15 min D) Warm-up throwing E) 45 ft, 20 throws</p> <p><u>Step 4:</u></p> <p>A) Warm-up throwing B) 45 ft, 20 throws C) Rest 10 min D) Warm-up throwing E) 45 ft, 20 throws F) Rest 10 min G) Warm-up throwing H) 45 ft, 20 throws</p>	<p><u>Step 5:</u></p> <p>A) Warm-up throwing B) 60 ft, 20 throws C) Rest 15 min D) Warm-up throwing E) 60 ft, 20 throws</p> <p><u>Step 6:</u></p> <p>A) Warm-up throwing B) 60 ft, 20 throws C) Rest 10 min D) Warm-up throwing E) 60 ft, 20 throws F) Rest 10 min G) Warm-up throwing H) 60 ft, 20 throws</p> <p>120' Phase</p> <p><u>Step 9:</u></p> <p>A) Warm-up throwing B) 60' (5-7 throws) C) 90' (5-7 throws) D) 120' (15 Throws) E) Rest 3-5 minutes F) Warm-up throwing G) 60' (5-7 throws) H) 90' (5-7 throws) I) 120' (15 Throws)</p>	<p><u>Step 7:</u></p> <p>A) Warm-up throwing B) 90 ft, 20 throws C) Rest 15 min D) Warm-up throwing E) 90 ft, 20 throws</p> <p><u>Step 8:</u></p> <p>A) Warm-up throwing B) 90 ft, 20 throws C) Rest 10 min D) Warm-up throwing E) 90 ft, 20 throws F) Rest 10 min G) Warm-up throwing H) 90 ft, 20 throws</p> <p>120' Phase (continued)</p> <p><u>Step 10:</u></p> <p>A) Warm-up throwing B) 60' (5 throws) C) 90' (10 throws) D) 120' (15 Throws) E) Rest 3-5 minutes F) 60' (5 throws) G) 90' (10 throws) H) 120' (15 Throws) I) Rest 3-5 minutes J) Warm-up throwing K) 60' (5 throws) L) 90' (10 throws) M) 120' (15 Throws)</p>

Initiation of Pitching Mechanics

After the completion of Phase I of the Interval Throwing Program and the athlete can throw to the prescribed distance without pain the athlete will be ready for initiation of pitching or return to their respective position. At this point, full strength and confidence should be restored in the athlete's arm. Just as the advancement to this point has been gradual and progressive, there turn to unrestricted throwing must follow the same principles. A pitcher should first throw only fastballs at 50%, progressing to 75% and 100%. At this time, the athlete may start more stressful pitches. The position player should simulate a game situation, again progressing at 50-75-100%. Once again, if an athlete has increased pain, particularly at the joint, the throwing program should be backed off and re-advanced as tolerated, under the direction of the rehabilitation team.

Summary: In using the Interval Throwing Program (ITP) in conjunction with a structured rehabilitation program, the athlete should be able to return to full competition status, minimizing any chance of re-injury. The program and its progression should be modified to meet the specific needs of each individual athlete. A comprehensive program consisting of a maintenance strength and flexibility program, appropriate warm-up and cool-down procedures, proper pitching mechanics, and progressive throwing and batting will assist the softball player in returning safely to competition.

Stage 1: FASTBALLS ONLY, Rest 5-8 minutes between sets, steps 1-5 consist of 1 fastball and 1 off speed pitch at the level specified, 6-11 pitches should match preinjury pitch mix

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| <p>Step 1: Interval Throwing
3 sets of 15 pitches at 50%</p> <p>Step 2: Interval Throwing
4 sets of 15 pitches at 50%</p> <p>Step 3: Interval Throwing
2 sets of 15 pitches at 50%
2 sets of 15 pitches at 75%</p> <p>Step 4: Interval Throwing
3 sets of 15 pitches at 50%
2 sets of 15 pitches at 75%</p> <p>Step 5: Interval Throwing (Use speed gun to aid in effort control) 5 sets of 15 pitches at 75%</p> <p>Step 6: 3 sets of 15 pitches at 75%
2 sets of 15 pitches at 100%</p> <p>Step 7: 2 sets of 15 pitches at 75%
3 sets of 15 pitches at 100%</p> <p>Step 8: 5 sets of 15 pitches at 100%</p> <p>Step 9: 3 sets of 20 pitches at 100%
2 sets of 15 pitches at 100%</p> <p>Step 10: 5 sets of 20 pitches</p> <p>Step 11: 50 - 60 Throws in Batting Practice
50-60 pitches at 100%</p> <p>Step 12: Simulated Game
7 innings
Variable pitches per inning
20 pitch max per inning using preinjury pitch mix,
100 pitches total, 8 minutes rest between innings</p> | <p>Use Interval Throwing 105' Phase as warm-up</p> <p>ALL PITCHING SHOULD BE
DONE IN THE PRESENCE OF YOUR
PITCHING COACH TO STRESS PROPER
THROWING MECHANICS</p> |
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