
PHYSICAL THERAPY REHAB PROTOCOL

Interval Throwing Program

Return-to-Throwing Protocol

Criteria for Entry

- Full, pain-free ROM
- Normal, pain-free muscle strength
- MMT < 10% deficit bilaterally
- Satisfactory functional testing
- Physician approval

Considerations

Emphasize pre-throwing warm-up and stretching

- Perform light jogging or other general body activity
- Follow with stretching of the shoulder (self or manual)
- Light toss warm-up throws at approximately 30–60 feet (up to 50 reps)

Complete each phase before progressing to the next

- If unable to complete a phase, rest one day and try again
- All throwing must be pain-free

Proper throwing mechanics are essential to injury prevention

- Use the "crow-hop" method of throwing for long toss activities
- Long toss throws should have a high arc on the ball
- Follow-through is vital
- For pitchers, throwing from the mound should be done under the supervision of a coach only

Perform strengthening exercises after throwing workouts

- Emphasize light weight and high reps (shoulder-specific)
- Exercise to fatigue

Rest days are essential

- Soreness is to be expected; control pain with heat and ice where indicated
- Rest one day before progressing to the next step of a phase
- Perform light stretching and aerobic activities on rest days

Stop throwing if sharp pain is experienced. Players should notify the ATC immediately.

When Phase I is complete (75 throws at 180 ft), progress to position-specific throwing.

Pitchers progress to the mound; position players move to their positions.

Phase I: Long Toss

- All players must begin re-entry with this phase
- Throwing is performed every other day
- All throwing must be pain-free
- Emphasize a "crow-hop" throw with proper follow-through
- Always warm up first: jog, stretch, light toss (30–60 ft)
- Continue a maintenance strengthening program; perform after throwing
- Soreness is expected; rest and use ice and heat when indicated by the trainer
- After completion of Phase I, progress to specific position

Routine A (odd steps)

- Warm-up throws (15–20 at 30–60 ft)
- 25 throws at step distance
- Rest 15 minutes
- Warm-up throws
- 25 throws at step distance
- Rest 15 minutes

Routine B (even steps)

- Warm-up throws (15–20 at 30–60 ft)
- 25 throws at step distance
- Warm-up throws
- Rest 10 minutes
- 25 throws at step distance
- Warm-up throws
- Rest 10 minutes
- 25 throws at step distance

Steps

- **Step 1:** 45 ft — Routine A
- **Step 2:** 45 ft — Routine B
- **Step 3:** 60 ft — Routine A
- **Step 4:** 60 ft — Routine B
- **Step 5:** 90 ft — Routine A
- **Step 6:** 90 ft — Routine B
- **Step 7:** 120 ft — Routine A
- **Step 8:** 120 ft — Routine B

- **Step 9:** 150 ft — Routine A
- **Step 10:** 150 ft — Routine B
- **Step 11:** 180 ft — Routine A
- **Step 12:** 180 ft — Routine B

Completion time: approximately one month.

- **Pitchers:** progress to preseason/re-entry program for specific position
- **Position players:** progress to preseason/re-entry program for specific position
- **Batting:** unrestricted in preseason; physician approval needed for re-entry (if not already approved)

Phase II: Re-Entry for Pitchers

- Pitchers must be able to throw 75 times at 180 ft pain-free
- All pitchers must follow this progression under supervision of a coach or athletic trainer
- All throwing must be pain-free
- Emphasize proper body mechanics and follow-through
- Always warm up first: jog, stretch, light toss (30–60 ft)
- Soreness is expected; rest and use ice or heat where indicated
- Continue maintenance strengthening program; perform after throwing

Steps

1. Long toss (90–120 ft × 50 throws); 15 fastballs at 50%
2. Long toss (90–120 ft × 50 throws); 30 fastballs at 50%
3. Long toss (90–120 ft × 25 throws); 45 fastballs at 50%
4. Long toss (90–120 ft × 25 throws); 45–60 fastballs at 50%
5. Long toss (90–120 ft × 25 throws); 30 fastballs at 75%
6. 30 fastballs at 75%; 5 minutes rest; 45 fastballs at 50%
7. 45 fastballs at 75%; 5 minutes rest; 15 fastballs at 50%
8. 45–60 fastballs at 75%
9. 30–45 fastballs at 75%; 15 fastballs at BP
10. 30–45 fastballs at 75%; 5 minutes rest; 20–30 curveballs at 75%; 5 minutes rest; 30 fastballs at BP
11. 20–30 fastballs at 75%; 5 minutes rest; 15 curveballs at 50%; 5 minutes rest; 30–45 fastballs at BP
12. 30 fastballs at 75%; 5 minutes rest; 20–30 curveballs at 75%; 5 minutes rest; 30 fastballs at BP
13. 30 fastballs at 75%; up to 45 pitches in BP (25% curve)
14. Simulated game

Phase II: Re-Entry for Infielders

- Infielders must be able to throw 75 times at 180 ft pain-free before entering this phase
- All infield players (except catchers) must follow this progression
- All throwing must be pain-free
- Emphasize proper body mechanics and throwing techniques
- Always warm up first: jog, stretch, light toss (30-60 ft)
- Soreness is expected; rest and use ice and heat where indicated by the trainer
- Continue a maintenance strengthening program; perform after throwing

Step 1

- Warm up to 150 ft (15-20 throws)
- 15 throws from position to 1B
- Rest 10 minutes
- 15 throws from position to 1B
- Rest 10 minutes
- 20 long toss at 150 ft

Step 2

- Warm up to 150 ft (15-20 throws)
- 15 throws from position to 1B (50% backhand, 50% glove-sided)
- Rest 10 minutes
- 15 throws from position to 1B (50% backhand, 50% glove-sided)
- 20 long toss at 150 ft

Step 3

- Warm up to 150 ft (15-20 throws)
- 15 throws from position to 1B with feet planted (backhand)
- Rest 5 minutes
- 15 throws from position to 1B with feet planted (glove-sided)
- Rest 5 minutes
- 20 long toss at 150 ft

Step 4

- Warm up to 150 ft
- Fielding and batting practice
- 20 long toss at 180 ft

Step 5

- Simulated game

Phase II: Re-Entry for Outfielders

- Outfielders must be able to throw 75 times at 180 ft pain-free before entering this phase
- All outfielders must follow this progression
- All throwing must be pain-free
- Emphasize proper body mechanics and throwing techniques
- Always warm up first: jog, stretch, light toss (30-60 ft)
- Soreness is expected; rest and use ice and heat where indicated by the trainer
- Continue a maintenance strengthening program; perform after throwing
- Outfielders should have fielding and catching drill work in addition to this progression

Step 1

- Warm up to 180-200 ft
- 15 throws at 120-150 ft
- Rest 10 minutes
- 20 throws at 120-150 ft
- 20 long toss at 180-200 ft

Step 2

- Warm up to 200-220 ft
- 15 throws at 180-200 ft
- Rest 5 minutes
- 20 throws at 180-200 ft
- 10 long toss at 225-250 ft

Step 3

- Warm up to 225-250 ft
- 5 throws to each base (2B, 3B, Home)
- Rest 5 minutes
- 6 throws to each cutoff (2B, SS)
- 10 long toss at 225-250 ft

Step 4

- Warm up to 225-250 ft (up to 15 throws)
- 5 throws to each base (2B, 3B, Home)
- 3 throws to each cutoff (2B, SS, infield cut)
- Rest 5 minutes
- 2 throws to each base (2B, 3B, Home)
- 3 throws to each cutoff (2B, SS, infield cut)
- 10 long toss up to 250 ft

Step 5

- Warm up to 250 ft
- 5 throws to each base
- 5 throws to each cutoff
- Rest 10 minutes
- 5 throws to each base
- 5 throws to each cutoff
- 10 long toss up to 250 ft

Step 6

- Simulated game

Phase III: Re-Entry for Catchers (Optional)

- Catchers must complete the infielders' re-entry program before entering this phase
- All throwing must be pain-free
- Emphasize proper body mechanics and throwing technique
- Always warm up first: jog, stretch, light toss (30-60 ft)
- Soreness is expected; rest and use ice and heat where indicated by the trainer
- Continue a maintenance strengthening program; perform after throwing
- Catchers should have fielding and catching drill work in addition to this

Step 1

- Warm up to 150 ft (up to 15 throws)
- 15 throws at 60 ft
- 15 throws at 90 ft
- 15 throws at 120 ft
- Rest 10 minutes
- 15 throws from squat at 60 ft
- 15 throws from squat at 90 ft
- 15 throws from squat at 120 ft
- 10 long toss at 120 ft

Step 2

- Warm up to 150 ft
- 20 throws to mound from squat after pitch
- 10 throws to each base from squat after pitch
- Rest 10 minutes
- 30 throws to mound from squat after pitch
- 10 throws to each base from squat after pitch
- 20 long toss at 150 ft

Step 3

- Warm up to 150 ft
- 20 throws to mound from squat after pitch
- 10 throws to each base from squat after pitch
- Rest 5 minutes
- 10 throws to each base after bunt
- 30 throws to mound from standing
- 20 long toss at 150 ft

Step 4

- Simulated game

These instructions are general guidelines from Dr. Tannenbaum's office. Always follow any specific instructions given to you by Dr. Tannenbaum or his team. Questions? Call Southern Indiana Orthopedics at (812) 376-9353.