

Ohio State Sports Medicine

Upper Extremity Rehabilitation: Short Return to Throwing:

Use

- Patients with minor pain or discomfort requiring maximum of 2 weeks off throwing

Duration

- 2 weeks for position players
- 4 weeks for pitchers

Guidelines

- Throw every other day
- Proper mechanics must be utilized at all times
- If fatigue sets in during session need to stop
- If pain sets in during session need to stop and contact medical team member
- Normal diffuse muscle soreness after throwing session is acceptable and to be expected
- Resistance training program performed on rest days not on same day of throwing session

Criteria for ITP

- Successful completion rehabilitation program
- Non painful ROM
- Total Range Of Motion (ER + IR at 90 Abduction) within 5 degrees of non-dominant arm
- Satisfactory clinical exam
- ER/IR strength ratio: 65-75% isokinetic OR 80% of non-dominant with HHD testing
- Functional Testing Options:
 - Ball drop test: 90% or above dom/nondom ratio
 - UE Y-balance: 88 or above
 - CKC UE Test: 30 or above
 - Single arm seated shot put 6# ball: 10% or less difference dominant v. non-dominant



Throwing Progression

- Throw Every Other Day

Workout	Warm-up Throwing	Position Players	Pitchers
1	To 60'	15 throws at 45' 15 throws at 60'	15 throws at 45' 15 throws at 60'
2	To 75'	15 throws at 45' 15 throws at 60' 15 throws at 75'	15 throws at 45' 15 throws at 60' 15 throws at 75'
3	To 90'	15 throws at 60' 15 throws at 75' 15 throws at 90'	15 throws at 60' 15 throws at 75' 15 throws at 90'
4	To 90'	15 throws at 75' 15 throws at 90' 15 throws at 90'	15 throws at 75' 15 throws at 90' 15 throws at 90'
5	To 120'	15 throws at 90' 10 throws at 105' 10 throws at 120'	15 throws at 90' 10 throws at 105' 10 throws at 120'
6	To 120'	10 throws at 105' 10 throws at 120' 10 throws at 120'	10 throws at 105' 10 throws at 120' 15 flatground
7	To 120' Max at 150'	10 throws at 120' 10 throws at 120' 10 throws at 150'	10 throws at 120' 10 throws at 120' 15 flatground

Mound Work

- Warm-up throwing to 120' using proper mechanics and crow-hop
- 2 mound sessions per week (2-3 days in between)

Workout	Pitches
1	30 pitches (15 at 50%, rest 5 min, 15 at 75%)
2	15 pitches @ 50% s 30 pitches @ $\frac{3}{4}$ speed (15, rest 5 min, 15)
3	30 pitches @ $\frac{3}{4}$ speed (15, rest 5 min, 15) 15 pitches @ full speed *start to mix-in off-speed (every 5 th pitch)
4	15 pitches @ $\frac{3}{4}$ speed 30 pitches @ full speed (15, rest 5 min, 15) 15 pitches @ $\frac{3}{4}$ speed



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References

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2. Chang, E. S., Bishop, M. E., Baker, D., & West, R. V. (2016). Interval Throwing and Hitting Programs in Baseball: Biomechanics and Rehabilitation. *American Journal Of Orthopedics* (Belle Mead, N.J.), 45(3), 157–162.
3. Sgroi, T. A., & Zajac, J. M. (2018). Return to Throwing after Shoulder or Elbow Injury.

