



Return to Throwing Program
Pre and Post Exercises
And Interval Progression

Introduction- This program provides a basic approach for patients/athletes to progress back to throwing. Physician protocols should be maintained until the rehab team can achieve relatively pain free ROM with normal plus to good strength of the patient/athlete. The values may be adjusted to accommodate the skill level of the patient or athlete. The program goals are to achieve proper joint mechanics, increase proprioception, improve scapular control, prevent reinjury, maintain dynamic muscular forces, and progress to an interval-throwing regimen. Allow 4-6 weeks for completion of entire program. Emphasize continuing the thrower exercises after discharge as a tool to maintain proper muscular balance.

1. **Warm-up:** 10-15 min with bike, upper extremity bike (UBE), and/or jog

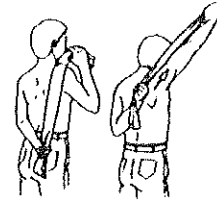
Stretches: Shoulder capsule, pectoralis muscles, trunk, low back, and legs

Posterior Capsule



Use corner of the wall, place outside of shoulder blade against corner and then pull arm across chest
____ set(s) ____ reps
Hold for ____ seconds/minutes

Post IR



Pull involved arm up behind back by pulling towel upward with the uninvolved arm
____ set(s) ____ reps
Hold for ____ seconds/minutes

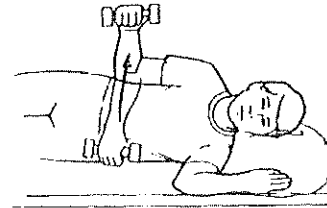
Option 2 for posterior capsule/IR stretch: From the side, stand against the wall with the arm position at shoulder height allowing the shoulder and forearm to touch the wall. Next, bend elbow to 90 degrees and with opposite hand push wrist down to the floor. Make sure you turn your head to the side of the shoulder being stretched

2. **Throwing Exercises (Pre and Post)**

External Rotation:

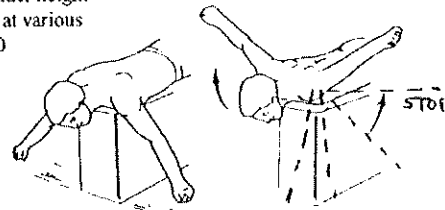
Sidelying ER

Hold a ____ lb. weight in ____ hand
Lie on side with arm holding the weight on top
Turn/rotate arm upward, keeping elbow bent and arm close to side. Stop when weight just passes body
Hold for ____ seconds and lower
____ set(s) ____ reps



Prone Horizontal Abduction/Clock ex

Lie on stomach, hold ____ lb. dumbbell
With elbow straight, raise arm upwards
Hold for ____ seconds and lower slowly to shoulder height
**Add ER component perform with thumb(s) at various degrees "The Clock ex."- 60, 90, 120, and 180
____ set(s) ____ reps



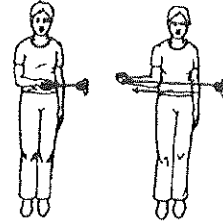
Reviewed 12/2014

Return to Throwing Exercises

ER @ 0 (with elbow close to side)

Anchor tubing and grasp in ____ hand
 With arm at side, turn/rotate arm out as shown
 Hold for ____ seconds
 ____ set(s) ____ reps

Functional option: Stand non-dominant leg while completing above exercise



ER @ 90

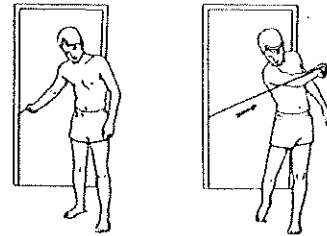
Anchor tubing, and grasp tubing in ____ hand
 Hold arm up and elbow bent as shown, with fist pointing forward
 Rotate/turn arm upward from starting position
 Hold for ____ seconds
 ____ set(s) ____ reps
 **Be careful not to shrug shoulders



Internal Rotation Exercises:

Tennis Forehand (band)

Anchor tubing and grasp tubing with ____ arm slightly extended
 Bring arm across chest and turn inwards as shown-like a forehand in tennis
 ____ set(s) ____ reps



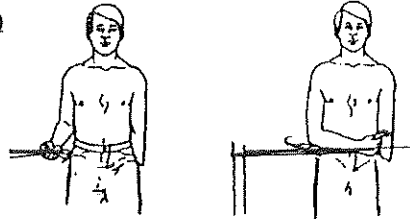
IR @ 0 degrees Abduction (with arm at side)

Place arm at side with tubing in ____ hand
 turn/rotate arm inwards
 Hold for ____ seconds
 ____ set(s) ____ reps



IR @ 90 (with elbow bent at 90 degree angle)

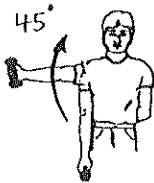
Anchor tubing and hold in ____ hand
 Keep the arm elevated and turn/rotate downwards from starting position
 Hold for ____ seconds
 ____ set(s) ____ reps



Supraspinatus Training:

Scaption (active Jobe position/full can)

In stance position, hold ____ lb dumbbell
 With elbow straight and thumb up
 Lift arm in angular plane to shoulder height
 Hold for ____ seconds, ____ set(s) ____ reps
 *Elevate to 70-90 degrees, **ACUTE** pain don't perform
 Functional Option: Performed with step up (opposite hip)



Military Press

Anchor tubing at floor level
 With tubing/dumbbell in ____ hand
 Place hand(s) in knuckles up position
 From shoulder level straighten elbow and turn thumb as shown
 Hold for ____ seconds
 ____ set(s) ____ reps

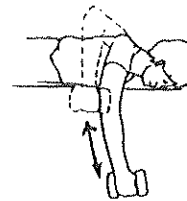


Return to Throwing Exercises

Scapular Training:

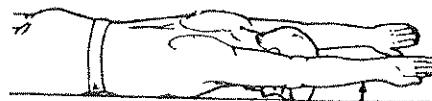
Prone Rowing

Lie on stomach with involved arm hanging off table
 From a straight elbow position, slowly bend elbow
 With ___ lb. dumbbell, hold at highest position
 for ___ seconds and lower
 ___ set(s) ___ reps
 Option 2: on stomach, row to body level and turn upwards to 90/90 position



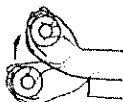
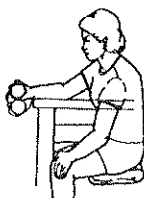
Superman with Scapular Retraction

Lie on stomach with both elbows straight
 With thumbs up, lift arm off table
 Pinch shoulder blades together & to opposite pocket
 Hold for ___ seconds
 ___ set(s) ___ reps



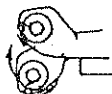
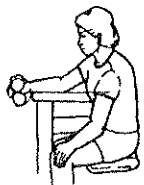
Forearm Pronation/Supination

Put forearm on table with wrist in neutral (thumb up)
 Using ___ lb weight roll wrist taking palm down or up
 Hold for ___ seconds and return to neutral position
 ___ set(s) ___ reps



Wrist Extension/Flexion

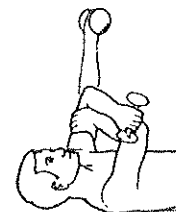
Put forearm on table
 Lift wrist from a palm-up and then palm-down position
 Use ___ lb dumbbells
 Hold for ___ seconds
 ___ set(s) ___ reps
 Functional: Use therabands as above, with 1/3 single squat and multi-directional hip movements



Elbow Flexion/Extension

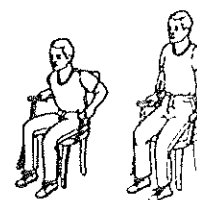
Flexion: Use ___ lb dumbbell
 Start with arm at side palm up and elbow straight
 Bend elbow and hold for ___ seconds
 ___ set(s) ___ reps
 Functional: Squat curls

Extension: Use ___ lb. dumbbell
 Raise arm above head and start with elbow bent
 Straighten out elbow and hold for ___ seconds
 ___ set(s) ___ reps



Press-ups/Sitting chair-ups

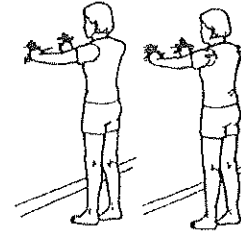
Sit in chair with arms as shown
 Hands approximately same with as shoulders
 Push arms down and straighten elbows to lift body off of chair
 Hold for ___ seconds at elevated position and lower slowly
 ___ set(s) ___ reps
 *Be careful of shoulder shrugging



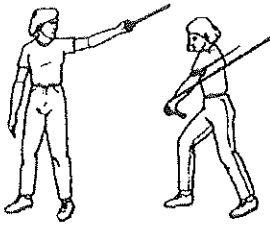
Return to Throwing Exercises

Push-ups (w/plus)

Start in push-up position (quadruped) and elbows bent
Straighten out both elbows, at top elevated position "punch"
Hold for ___ seconds and slowly bend elbows and lower body
*Start with the wall then gradually change gravity positions
___ set(s) ___ reps

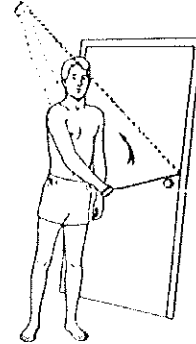


PNF D2 Extension/Flexion



D2 Extension: Anchor tubing at head height
Grasp tubing at head height, arm elevated and out to the side
Pull tubing down and across body leading with your thumb
Ending position is thumb down to opposite pocket or leg
___ set(s) ___ reps
Functional: Use partial lunges in diagonals (hips)

D2 Flexion: Anchor tubing below knee height or grasp as shown
Start tubing with thumb at pocket of opposite leg
Lift arm up and out, leading with thumb (diagonal)
Ending in the "thumbs up" position
___ set(s) ___ reps



(Based on throwers ten and collective work of 1, 18, 6, 22, 15, and 16)

*Note- In addition, emphasize strengthening and conditioning of legs, back, and trunk.
Please refer to addendum for outline of core/trunk and dynamic upper extremity exercises examples.

Space below provided for lower extremity and core exercises:

1. Abdominal exercises
2. Hips (stability and balance)
3. Postural exercises