

EMORY

SPORTS MEDICINE

Thrower/Overhead Athlete Handout

Goals of physical therapy/rehabilitation:

1. Reduce acute inflammation
2. Regain mobility
3. Develop and increase strength
4. Develop dynamic stability of shoulder/core/kinetic chain
5. Gradual return to throwing

What must be addressed:

1. Posture and muscle length (stretching, dynamic warm-up)
2. Strength/static stabilization (weights, bands, sustained holds)
3. Dynamic stabilization (plyometrics, core, kinetic chain)
4. Interval throwing program (gradual return, athlete specific)

Which muscles to stretch:

- Pectoralis Major
- Pectoralis Minor
- Posterior Rotator cuff
- Latissimus Dorsi

Which muscles to strengthen:

- Supraspinatus
- Infraspinatus
- Teres Minor
- Serratus Anterior
- Middle and Lower Trapezius
- Core (Transverse abdominis)
- Kinetic Chain (connecting the legs, core and shoulder/arm)

The following is a brief example of a comprehensive rehabilitation and arm care program. Details and further information will be supplied by your Emory sports medicine physician and physical therapist.

Shoulder/Arm Care program

1. Postural Correctives and Dynamic warm-up

Posterior Cuff stretching (cross body stretch/Sleeper stretch)

-Cross Body Stretch and Sleeper Stretch



Pectoralis minor stretching and thoracic mobility

-Relax Stretch:



-Scapular wall slides:



-Quadruped trunk rotation:



Lower Trapezius and Serratus Anterior strength

-Hitch Hiker on Swiss Ball:



-Bear Hug's (serratus Punch):



Dynamic Cuff activation

-Y, T, ER 90/90:



2. Strength

-Scaption and Abduction (sustained holds):



-Bent over row:

-Hitch hiker: as seen above utilize hand weights for resistance



-Prone T, Y and ER 90/90: (sustained holds)



-Hand taps:



-Overhead waiter's carry:

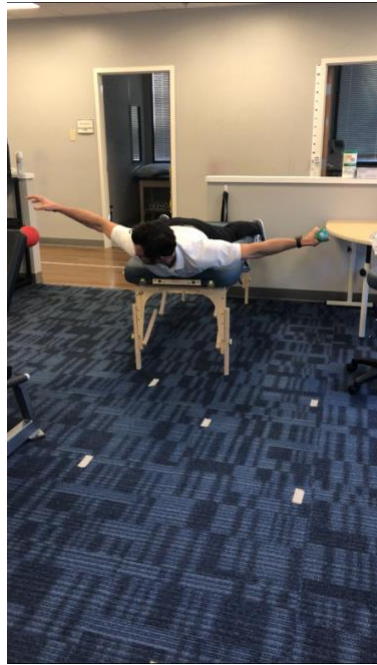


3. Plyometrics

-Ball throws at wall:



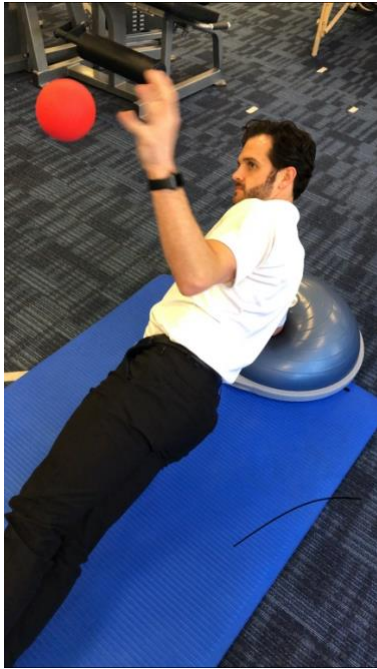
-Prone T ball flips:



-Flexion and Abduction ball flips:



-ER ball flips:

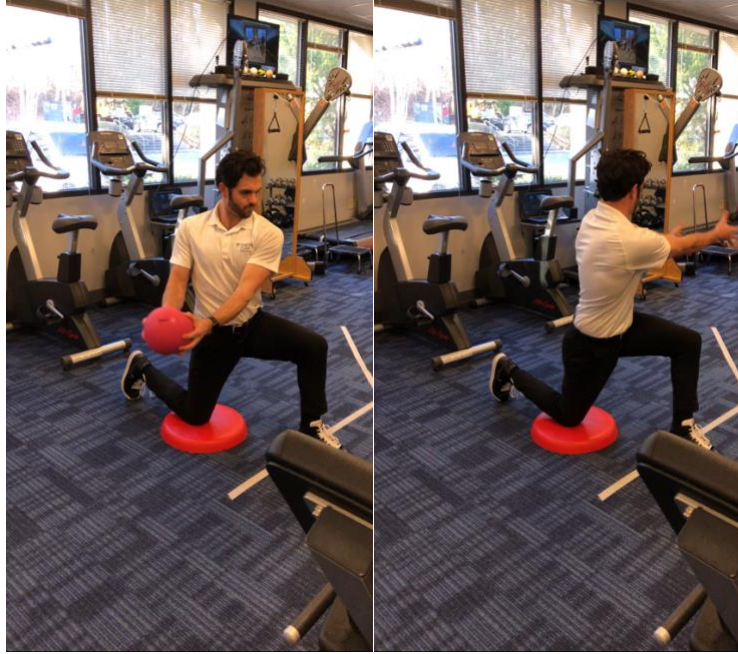


-Deceleration catches:

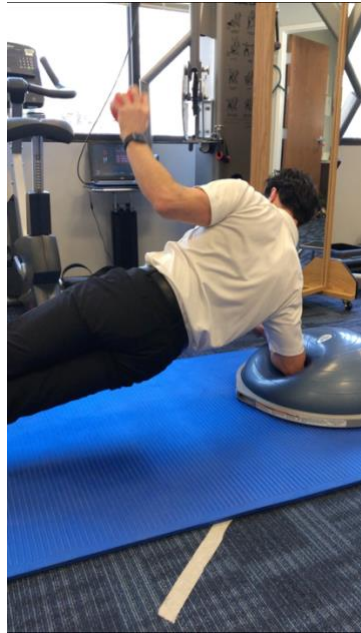


4. Core/Rotational

-1/2 Kneeling Medicine ball toss:



-Side lying Planked ER:



5. Kinetic Chain

-SL balance with sustained holds



-SL RDL



-SL Squat



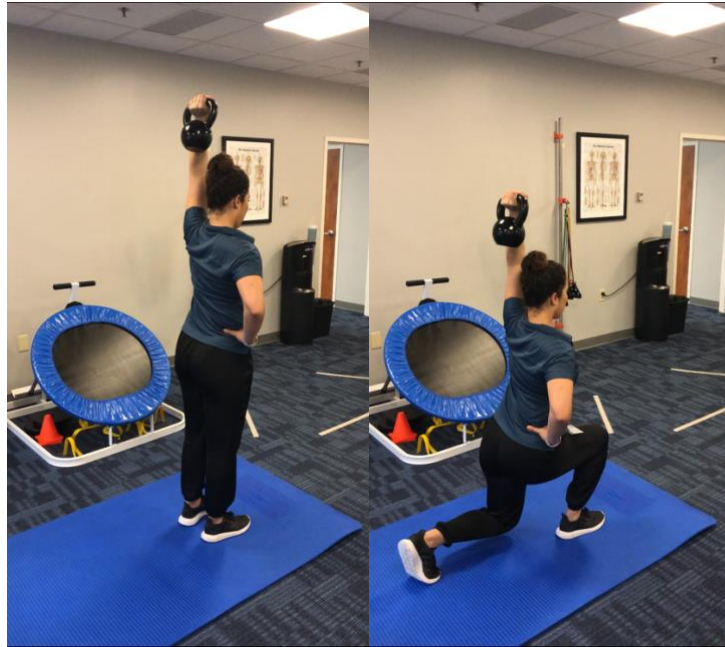
-Plank Leg Raise



-Lunge to Row



-Posterior lunge with overhead Press



-Dry Throws



Interval Throwing program:

-Once cleared by your sports medicine physician and physical therapist

Phase 1 Position Players and Pitchers

45 feet

Step 1 warm-up
25 throws @45 ft.
Rest 5-10 min
warm-up
25 throws @45 ft.

Step 2 warm-up
25 throws @45 ft.
Rest 5-10 min
warm-up
25 throws @45 ft.
rest 5-10 min
warm-up
25 throws @45 ft.
120 feet

90 feet

Step 5 warm-up
25 throws @90ft.
Rest 5-10 min
warm-up
25 throws @ 90 ft.

Step 6 warm-up
25 throws @90 ft.
Rest 5-10 min
warm-up
25 throws @90 ft.
rest 5-10 min
warm-up
25 throws @90 ft.

150 Feet

Step 9 warm-up
25 throws @150 ft.
Rest 5-10 min
warm-up
25 throws @150 ft.

Step 10 warm-up
25 throws @150 ft.

60 feet

Step 3 warm-up
25 throws @60 ft.
Rest 5-10 min
warm-up
25 throws @60 ft.

Step 4 warm-up
25 throws @60 ft.
Rest 5-10 min
warm-up
25 throws @60 ft.
rest 5-10 min
warm-up
25 throws @60 ft.
150 feet

120 Feet

Step 7 warm-up
25 throws @120 ft.
Rest 5-10 min
warm-up
25 throws @120 ft.

Step 8 warm-up
25 throws @120 ft.
Rest 5-10 min
warm-up
25 throws @120 ft.
rest 5-10 min
warm-up
25 throws @120 ft.

180 Feet

Step 11 warm-up
25 throws @180 ft.
Rest 5-10 min
warm-up
25 throws @180 ft.

Step 12 warm-up
25 throws @180 ft.

Rest 5-10 min
warm-up
25 throws @150 ft.
rest 5-10 min
warm-up
25 throws @150 ft.

Rest 5-10 min
warm-up
25 throws @180 ft.
rest 5-10 min
warm-up
25 throws @180 ft.

Phase 2 Flat ground progressions for pitchers

Step 13 warm-up
15 throws @ 60 ft.
10 throws @ 90 ft.
10 throws @ 120 ft.
20 throws @ 60 ft. 6 in. with wind-up

Step 14 warm-up
15 throws @ 60 ft.
10 throws @ 90 ft.
10 throws @ 120 ft.
20 throws @ 60 ft. 6 in. with wind-up
15 throws @ 90 ft.
20 throws @ 60 ft. 6 in. with wind-up

Phase 3 Fastballs

Step 1 warm-up
15 throws @ 50%

Step 9 warm-up
60 throws @ 75%

Step 2 warm-up
30 throws @ 50%

Step 10 warm-up
50 throws @ 75%

Step 3 warm-up
45 throws @ 50%

Step 11 warm-up
40 throws @ 75%

Step 4 warm-up
60 throws @ 50%

Step 12 warm-up
30 throws @ 75%

Step 5 warm-up
15 throws @ 75%

Step 13 warm-up
15 throws @ 90%

Step 6 warm-up
30 throws @ 75%

Step 14 warm-up
30 throws @ 90%

Step 7 warm-up
45 throws @ 75%

Step 15 warm-up
45 throws @ 90%

Step 8 warm-up
60 throws @ 75%

Step 16 warm-up
Simulated game speed begin @ 15 throws

Phase 4 Game speed and breaking balls/off-speed

Step 1 warm-up
30 fastballs
10 breaking balls @50%

Step 3 warm-up
30 fastballs
10 breaking balls @75%

Step 2 warm-up
20 fastballs
10 breaking balls @50%
10 change-up/off speed @50%

Step 4 warm-up
20 fastballs
10 breaking balls @75%
10 change-up/off speed @75%

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