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

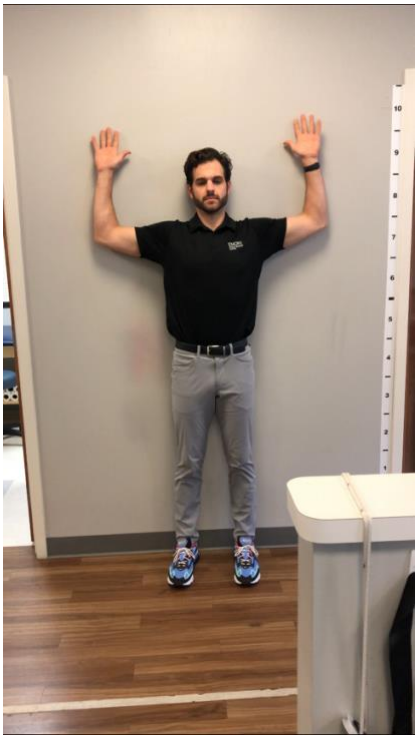


Pectoralis minor stretching and thoracic mobility

-Relax Stretch:



-Scapular wall slides:

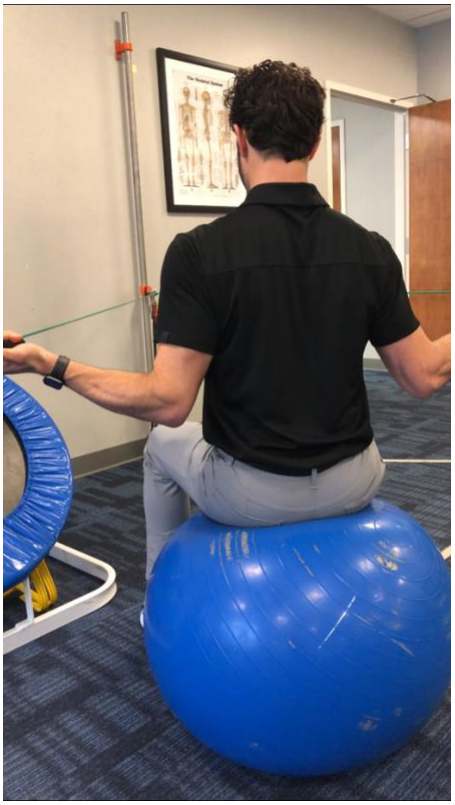


-Quadruped trunk rotation:

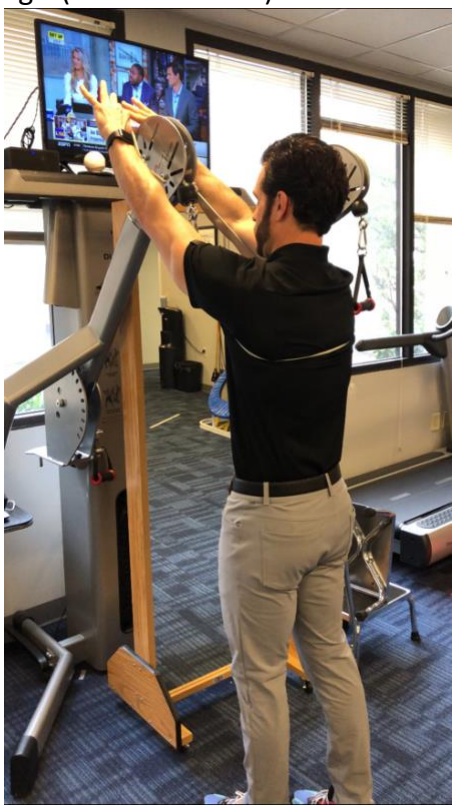


Lower Trapezius and Serratus Anterior strength

-Hitch Hiker on Swiss Ball:

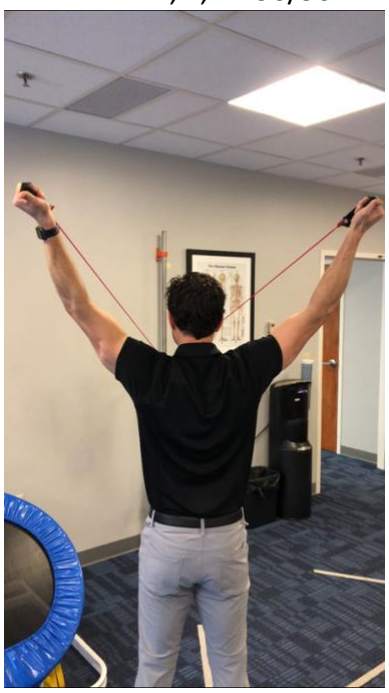


-Bear Hug's (serratus Punch):



Dynamic Cuff activation

-Y, T, ER 90/90:







2. Strength

-Scaption and Abduction (sustained holds):



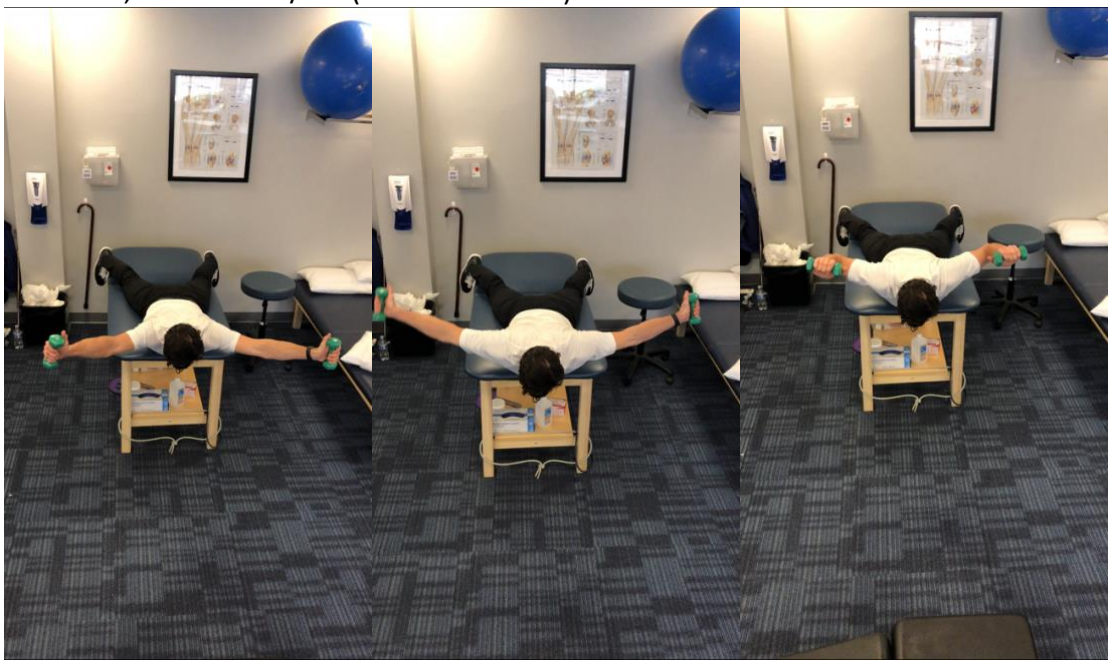


-Bent over row:

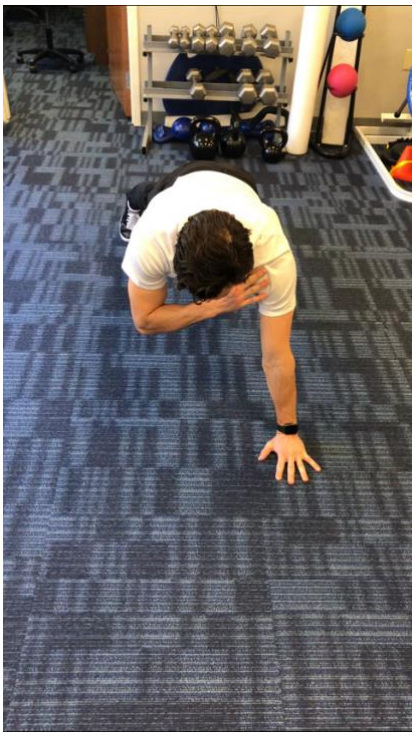
-Hitch hiker: as seen above utilize hand weights for resistance



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



-Hand taps:

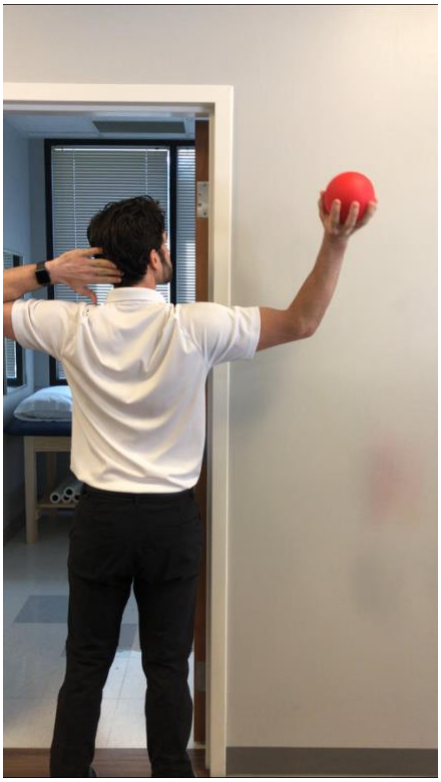


-Overhead waiter’s carry:

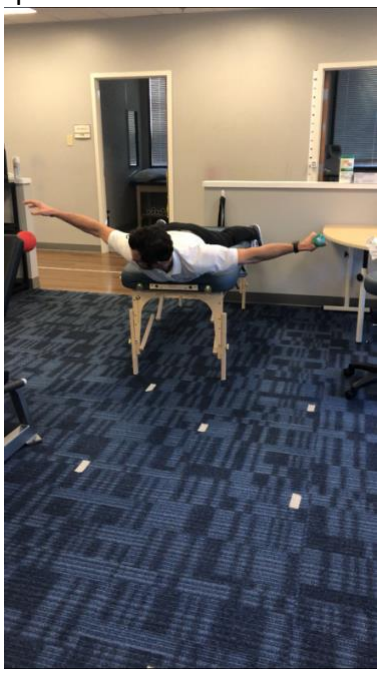


3. Plyometrics

-Ball throws at wall:



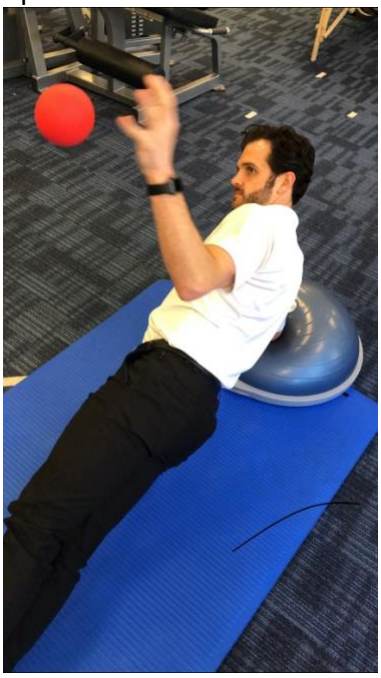
-Prone T ball flips:



-Flexion and Abduction ball flips:



-ER ball flips:

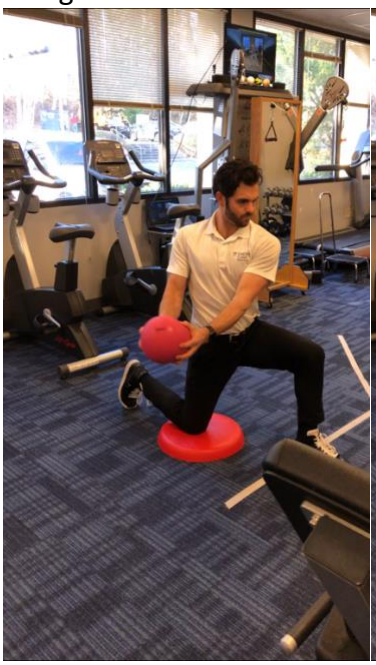


-Deceleration catches:

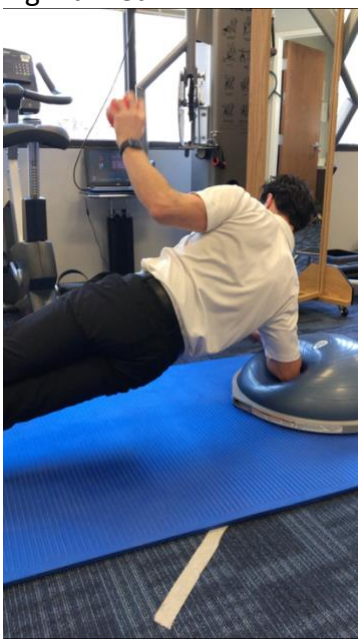


4. Core/Rotational

-1/2 Kneeling Medicine ball toss:




-Side lying Planked ER:



5. Kinetic Chain

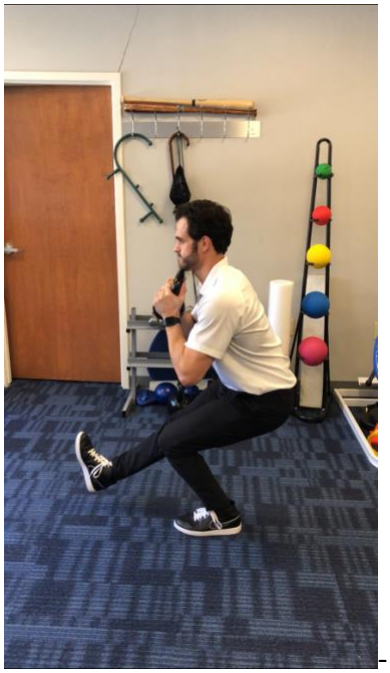
-SL balance with sustained holds



-SL RDL



-SL Squat



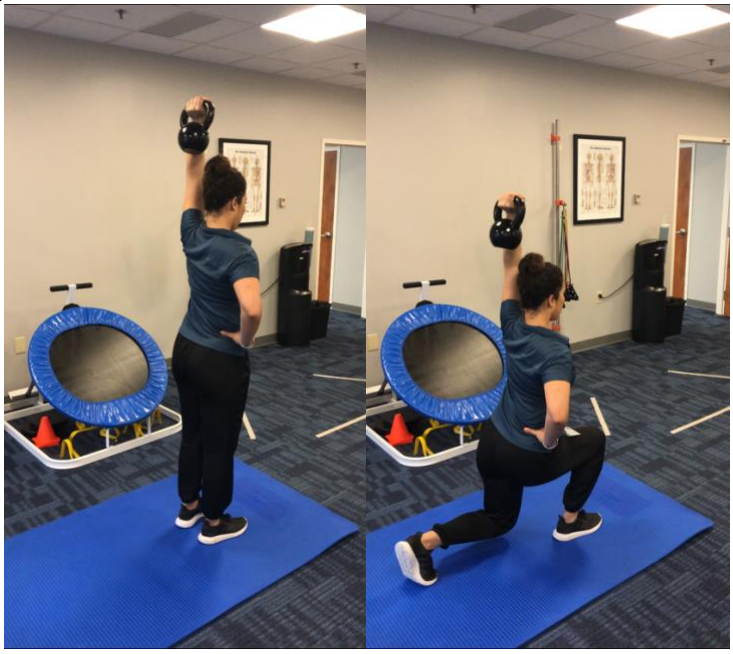
-Plank Leg Raise



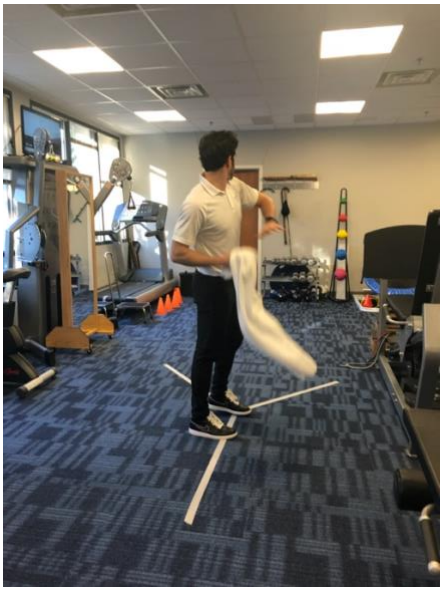
-Lunge to Row



-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		**60 feet**
Step 1	warm-up 25 throws @45 ft. Rest 5-10 min warm-up 25 throws @45 ft.	**Step 3**	warm-up 25 throws @60 ft. Rest 5-10 min warm-up 25 throws @60 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	**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
	90 feet		**120 Feet**
Step 5	warm-up 25 throws @90ft. Rest 5-10 min warm-up 25 throws @ 90 ft.	**Step 7**	warm-up 25 throws @120 ft. Rest 5-10 min warm-up 25 throws @120 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.	**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.
	150 Feet		**180 Feet**
Step 9	warm-up 25 throws @150 ft. Rest 5-10 min warm-up 25 throws @150 ft.	**Step 11**	warm-up 25 throws @180 ft. Rest 5-10 min warm-up 25 throws @180 ft.
Step 10	warm-up 25 throws @150 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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