

Brophy Sports Medicine

Exercises for Improved Functional Movement, Sport Performance & Reduced Injury Risk



Proper functional movement through multiple movement patterns is essential for optimal athletic performance and the prevention of acute and chronic musculoskeletal injury. The following daily exercises are intended to address the most common movement deficiencies. It is essential that proper functional movement is established before high resistance weight training or complex skill training. For questions or help with these, or if you are experiencing any pain in any movement pattern, contact your athletic trainer

I. Pre-exercise myofascial rolling/stick work/trigger point massage

*After a light warmup, begin w long rolls entire length of tight muscle, progress to shorter rolls over tighter areas, then use rolling stick and/or lacrosse ball to target tight small areas (trigger points)

Myofascial Rolling



Stick Rolling



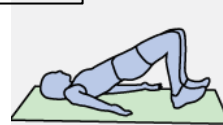
Trigger Point Massage

*press ball into tense area
*oscillate 10-15 secs, repeat



II. For improved core strength

*For more advanced exercises see athletic trainer



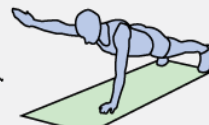
Glute Bridge

Lie face up on the ground with your arms to the side, knees bent and heels on the ground. Lift hips until knees, hips and shoulders are in a straight line. Hold for two or three seconds. Repeat several times.



Lateral Pillar Bridge

Lie on your side with your forearm on the ground under your shoulder. Push your hip off the ground. Create a straight line from ankle to shoulder. Hold this position for 15 to 30 seconds. Repeat several times.



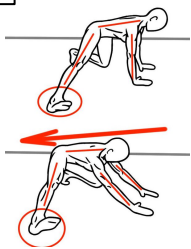
Plank With Arm Lift

Start in a push-up position with your feet and shoulders apart. Without moving your torso, lift left arm up and slightly to the left. Hold for one or two seconds. Then switch to the right arm. Repeat several times.

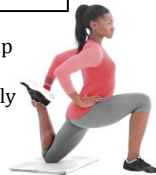
III. For improved hip & back mobility

*hold each side 5-10 seconds x 5-10 times

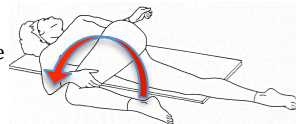
A Push hip down and then back
Feel inner/upper thigh stretch



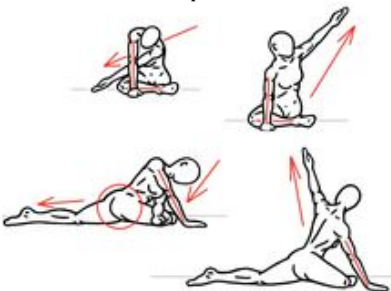
C Press hip forward, chest up
Feel front of hip stretch
*Pad under knee and gently pull foot, squeeze glut, as alternative



D Gently pull knee up and across and rotate thigh in (foot up/out)
Feel back pocket area stretch
*Stand back against wall to make easier



B Reach down/across then up/away
Feel outer hip stretch



E Cat/Cow: Exhale push belly down, Inhale arch back up



F



Child's Pose: Sit back, extend w shoulders, reach w hands

Reach across opposite side

Start supine w upper back flat, bend knees to 90 degrees and slowly rotate hip/lower trunk to side, hold, and rotate slowly to other side, repeat several times

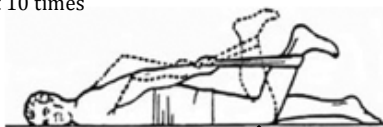


Lie on back w knees bent to 90 degrees, arms overhead w lightweight medicine ball, curl up then rotate one direction then opposite, return ball to front and gently go back to starting position, repeat several times



IV. For improved quadriceps flexibility

*with strap or towel pull heel toward butt for 10 secs
*repeat 10 times

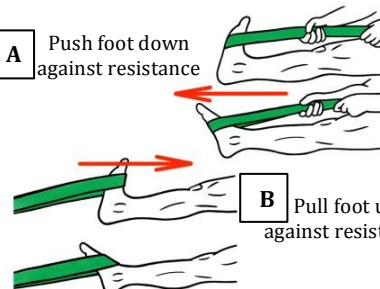


*repeat stretch with towel or pad just above knee

V. For improved ankle strength

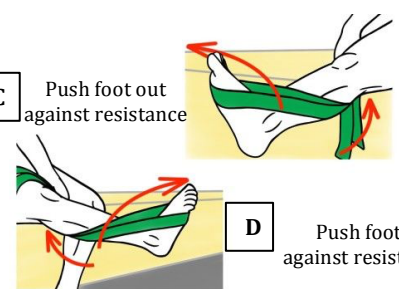
*do 3 sets of 15-20 repetitions w appropriate band tension

A Push foot down against resistance



B Pull foot up against resistance

C Push foot out against resistance



D Push foot in against resistance

VI. For improved scapular/shoulder mobility, stabilization & posture

1. Begin with **YTWL** (arm position) against wall, hold each position 5-10 seconds, feel stretch in chest and front of shoulders, squeeze shoulder blades together
2. Progress to standing away from wall, then to lying on belly (prone) once
3. When master each position, progress to light weight resistance in prone position on ground, then on therapy ball

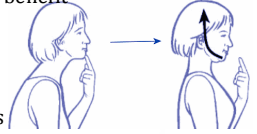


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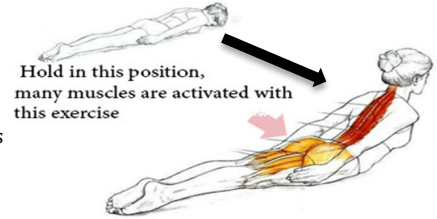


*Pectoralis stretch: Press lacrosse ball into chest 10-15 secs x 5 reps, then tuck chin & stretch in corner of room 10-15 secs x 5-10 reps

- *Back flat against wall
- *Retract head, gently push w hand
- *Hold 10 secs, Repeat 10 times
- *Hold ball w chin after retract head for added strength benefit

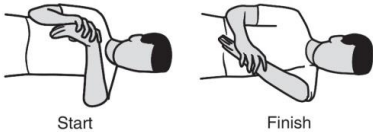


- *Hold this position below 5-10 seconds
- *Squeeze gluts as lift, head/chest Repeat 5 times



Hold in this position, many muscles are activated with this exercise

*Sleeper stretch: Hold stretch 10-15 seconds, repeat 5 times



Start

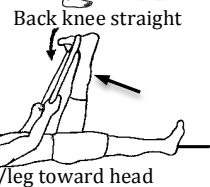
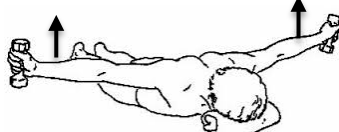
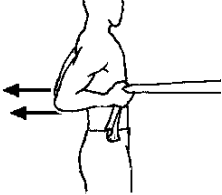
Finish



VII. For improved ankle mobility & hamstring flexibility

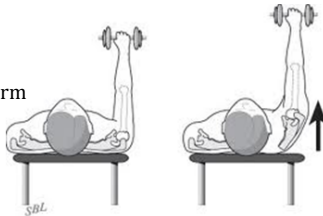
*hold each for 10 seconds, repeat 10 times for each leg

*Squeeze shoulder blades together as you do these 3 sets of 10-15 reps of these 2 exercises



- *Toe against wall
- *Push bent knee towards wall

- *With light weight, press upward
- *Complete 3 sets of 10 reps each arm

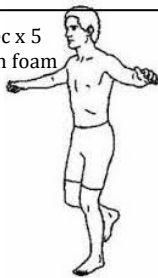


- *Start in squat position
- *Keep back straight, head up
- *Straighten knees
- *Push on knees gently w elbows

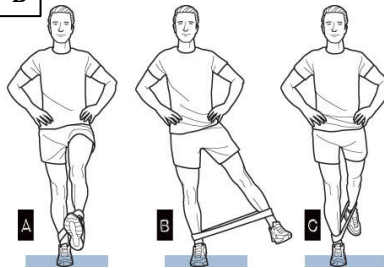


VIII. For improved balance/proprioception

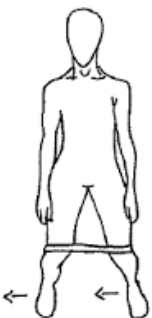
- A** *Single leg balance, 10 sec x 5
*Progress to balancing on foam



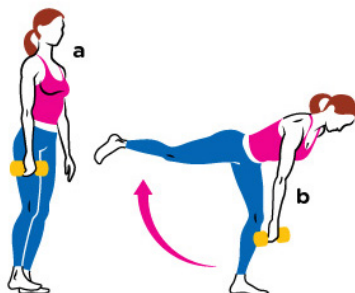
- B** *Kick forward, side, back 3 sets x10



- C** *Side steps w band around knees
*Stabilize hips, do not let knees bend inward
*Do 10 steps left, then right x 3



- D** *Single Leg Romanian Deadlift: Start with no weight or very light weight, lean forward keeping back straight, do not rotate trunk, bring leg backward, hold briefly, return, do 3 sets 5 each leg



IX. Ideal deep overhead squat mechanics

*Ideal squat mechanics are essential for improved performance & injury prevention: uses many major muscle groups/joints & is one of most fundamental movement patterns
*Use a mirror, work progressively into deeper, perfect squat

- *Keep hands/bar overhead in line with toes
- *Keep back straight, parallel with lower legs
- *Hinge at the hip
- *Thigh should drop below parallel with ground
- *Knees stay over toes (not in front of toes)
- *Lower legs are parallel with back
- *If unable to full squat, place 2" board under heels

