

The Functional Movement Screen™ Exercise Progressions for Corrective Exercises for 7 Point Screen

Deep Squat Corrective Exercises-

Partner Stretch Prone Quad Stretch

Wall Sit

Dorsiflexion Stretch

Hurdle Step

Partner Prone Hip Flexor Stretch

Stride with Hip External Rotation

Stride Stretch with/without Spinal Rotation

In-line Lunge

Partner Thomas Test Stretch

Gastroc/Soleus Stretch

Latissimus Dorsi/External Rotation Stretch

Leg Lock Bridge

Shoulder Mobility

Partner Traction w/ Int/Ext Rotation

Wall Sit with Shoulder Press

Active Straight Leg Raise

Partner Straight Leg Raise

Single Leg Lowering Progression

Trunk Stability Push-Up

Incline Push-up

Push-up Walkout

Rotary Stability

Bilateral Hip Flexed Rotation Abd/Add.

Hip Flexed Torso Rotation

Rolling

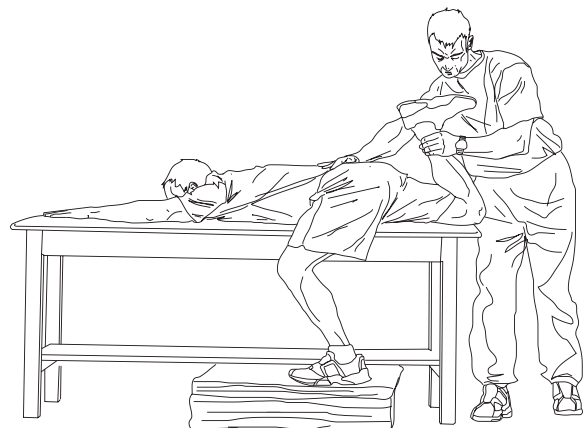
Deep Squat Corrective Exercise Progressions

Partner Stretch Prone Quadriceps Stretch

Starting Position- Lying prone with involved side on table and knee extended. The opposite foot is placed on the floor with the hip flexed in order to attain a neutral spine.

Execution at a Glance- The athlete actively flexes his/her knee until a slight stretch is felt in the quadriceps 5-7 times. The partner then places his/her hand on the anterior aspect of the lower leg passively flexing the knee until a stretch is felt. This is held 5-10 seconds. The athlete then extends the knee against slight resistance. This is repeated 3-5 times. Range of motion is increased with each repetition.

Safety Tips and Verbal Cueing- Maintain alignment with the lower extremity and torso. Take special note of right and left asymmetries, focusing on the weakness.



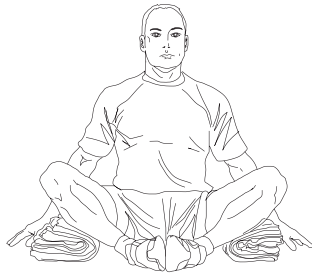
Self-Stretches

Wall Sit with Dorsiflexion

Starting Position- Seated with the Lumbar Spine/S-I joint flat against a wall. Flex, externally rotate the hips and flex the knees, bringing the feet toward the torso, placing the bottoms of the feet together and ankles dorsiflexed.

Execution at a Glance- The position is maintained for approximately 5-10 minutes; pillows can be placed under the thighs and knees.

Safety Tips and Verbal Cues- Begin slowly and increase time when the person feels comfortable with the activity. Utilize pillows under the thighs and knees to decrease pressure on the knees and hips. Take special note of right and left asymmetries, focusing on the weakness.

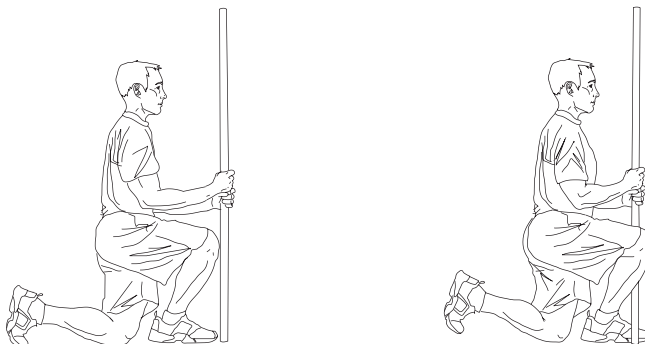


Kneeling Dorsiflexion

Starting Position- Athlete assumes a half-kneeling position with feet wider than mid-line. The front foot should be in rotated medially. The hands placed on the dowel with the low back flattened and abdominals drawn inward. The dowel is placed along the lateral aspect of the foot.

Execution at a Glance- Shift forward, taking the front knee over the foot, but in line with the second toe. The heel should remain down.

Safety Tips and Verbal Cues- The stretch may be felt in the front of the ankle or to the rear of the ankle above the heel. To increase the intensity, lessen the distance between the two feet. Keep the heel down and foot in-line. Maintain a tall and erect spine. Take special note of right and left asymmetries, focusing on the weakness.

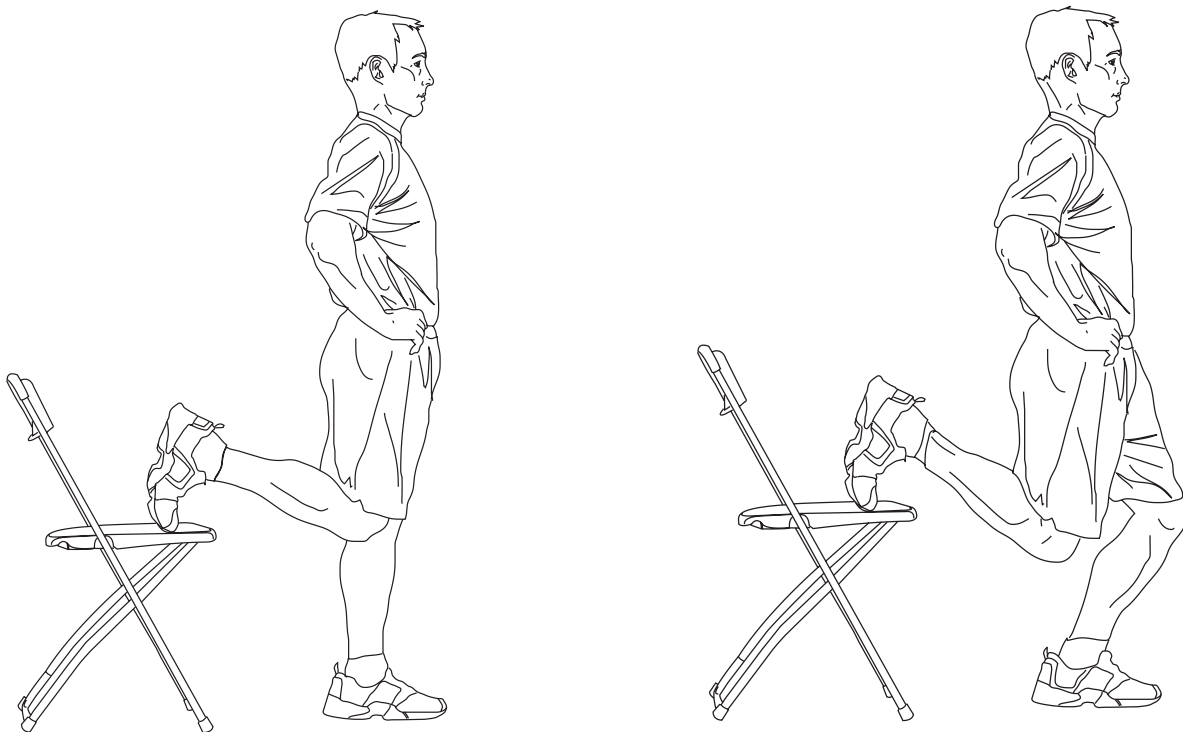


Standing Rectus Stretch

Starting Position- The athlete stands on one leg with the foot of the opposite leg resting on a bench or chair at approximately mid-thigh height so that the two thighs are side by side.

Execution at a Glance- Flatten the lower back by tilting the pelvis posterior. Flex the stance leg knee and lower to attain a stretch.

Safety Tips and Verbal Cues- Maintain an upright spine throughout the movement. Raise the height of the foot in order to increase the intensity of the stretch. Keep both thighs in line and adducted. Take special note of right and left asymmetries, focusing on the weakness.



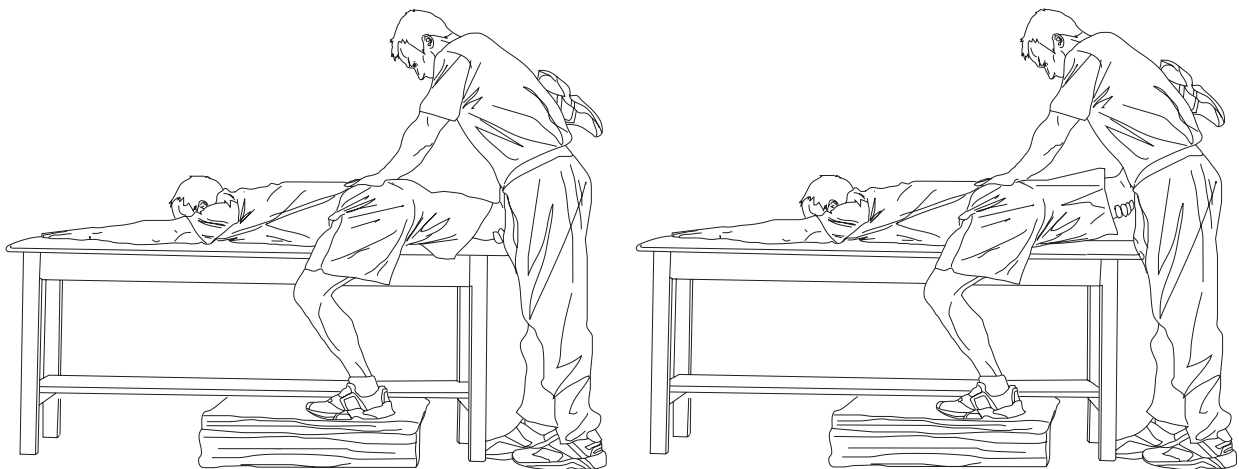
Hurdle Step Corrective Exercise Progressions

Partner Stretch Prone Hip Flexor Stretch

Starting Position- Lie prone with involved side on table and knee flexed to 90 degrees. The opposite foot is placed on the floor with the hip flexed to resemble maximal stride position. The partner places his/her hand under the involved side knee (between the table and knee). The other hand is placed on the sacrum of the athlete to stabilize the hips and lumbar spine.

Execution at a Glance- The athlete actively flexes the hip against a slight resistance of the partner's hand. This is repeated for 3-5 repetitions. The partner then extends the involved hip, passively holding it for a 5-10 second count. The athlete then actively holds the hip in extension and adduction for a 3-5 second count.

Safety Tips and Verbal Cues- Maintain alignment with the lower extremity and torso. Do not abduct hip during stretch and maintain neutral spine during stretch. Take special note of right and left asymmetries, focusing on the weakness.

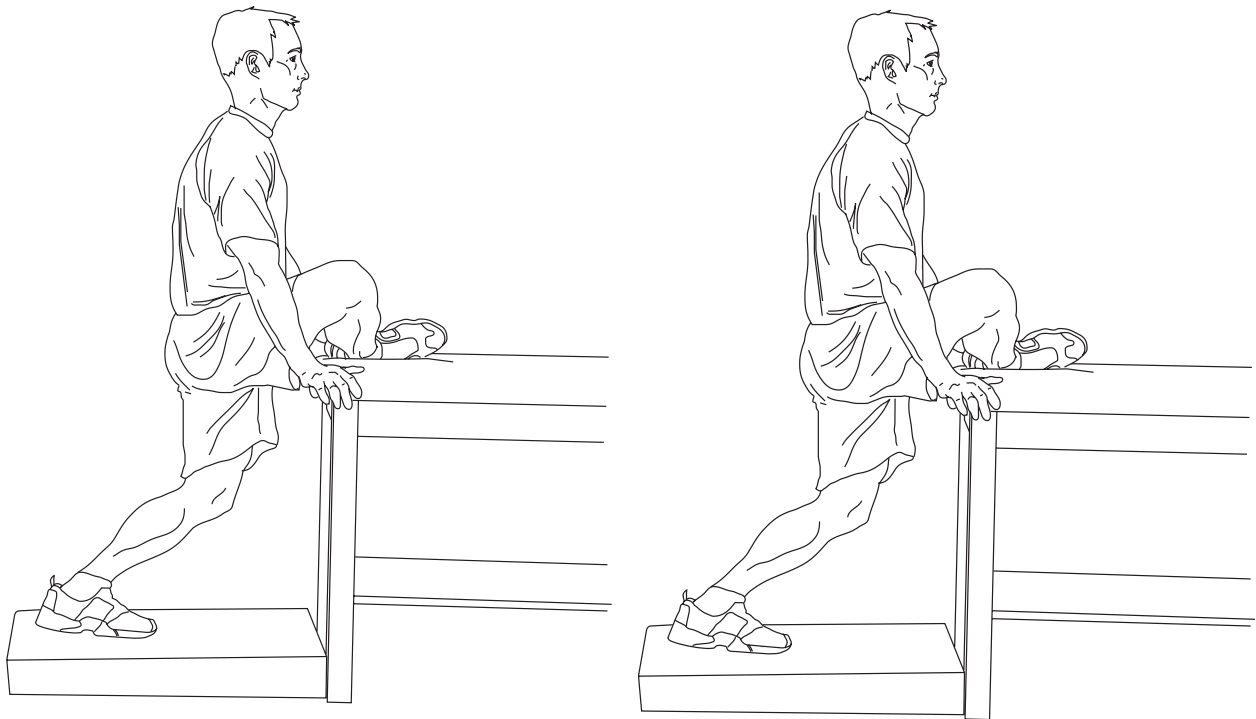


Self Stretches
Stride with Hip External Rotation

Starting Position- Standing with involved hip flexed and externally rotated, knee is flexed and lower leg is placed on a table (height is approx. mid-thigh or higher). The opposite extremity remains extended with the foot flat on the floor. The torso and spine should be in a neutral and erect posture.

Execution at a Glance- The athlete then flexes the stance knee, enough to feel a stretch in hip. This position is held 5-10 seconds. The spine should stay erect throughout the stretch. This is repeated 3-5 times.

Safety Tips and Verbal Cueing- A pillow can be placed under the thigh and knee of the flexed hip to decrease pressure on knee and hip. Maintain proper alignment with flexed hip, spine and torso. The flexed hip and knee should be perpendicular to the pelvis. An increased stretch is noted with greatedened adduction. Take special note of right and left asymmetries, focusing on the weakness.

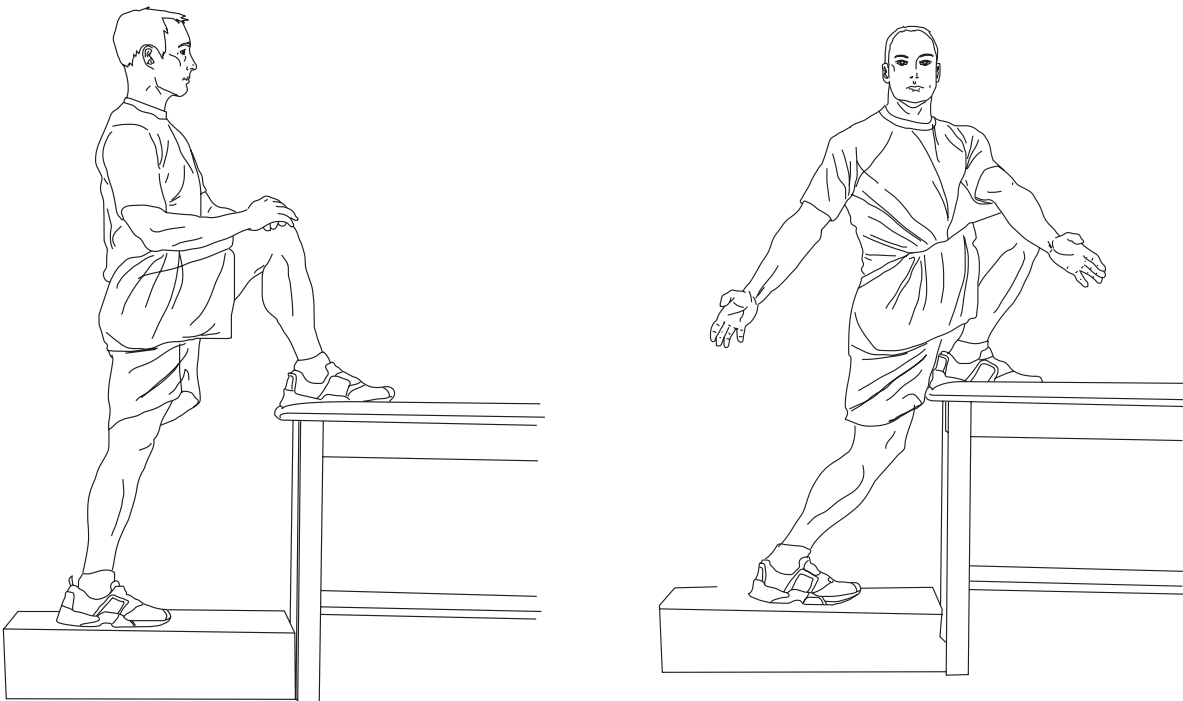


Stride with Spinal Rotation

Starting Position- Standing with the involved hip and knee flexed with the foot placed on the table. Maximal stride position should be assumed. The opposite leg should be extended at the hip and knee. The torso and spine should be in a neutral and erect posture.

Execution at a Glance- Lean toward table maintaining an erect spine slightly bend knee, and rotate spine toward flexed hip. Hold stretch for 5-10 seconds and repeat 3-5 times.

Safety Tips and Verbal Cueing- Maintain proper posture with hip, knee, spine and torso. Take special note of right and left asymmetries, focusing on the weakness. **Self Stretch**



In-Line Lunge Corrective Exercise Progressions

Partner Stretch Modified Thomas Test Stretch

Starting Position- Athlete lies supine on the edge of a table with flexed hips and knees to chest. Involved leg is lowered off edge of table while maintaining flat lumbar spine with opposite hip remaining flexed passively (athlete or partner holding thigh).

Execution at a Glance- Hip Flexor- Partner presses with his/her hand on anterior thigh downward toward the table. The opposite hand is placed on the athlete's foot in order to assist the athlete in maintaining a flat lumbar spine. The partner presses the hip into extension for 5-7 seconds. Then the athlete flexes the hip against the slight resistance of the partner's hand for 3-5 seconds.

Quadriceps- Partner pushes, with his/her hand on the anterior lower leg, the knee into flexion while the athlete continues to maintain a flat lumbar spine. The partner holds the stretch for 5-7 seconds and then the athlete extends the knee against slight resistance for 3-5 seconds.

These two stretches can be done simultaneously. This is accomplished with the partner using his/her lower leg against the lower leg of the athlete for the quadriceps stretch and using his/her hand against the anterior thigh for the hip flexor stretch. The stretches should be repeated 3-5 times.

Safety Tips and Verbal Cueing- Make sure the athlete maintains a flat lumbar spine throughout the exercise. Make sure partner uses proper body positioning in order to make execution of stretch easier. Take special note of right and left asymmetries, focusing on the weakness.

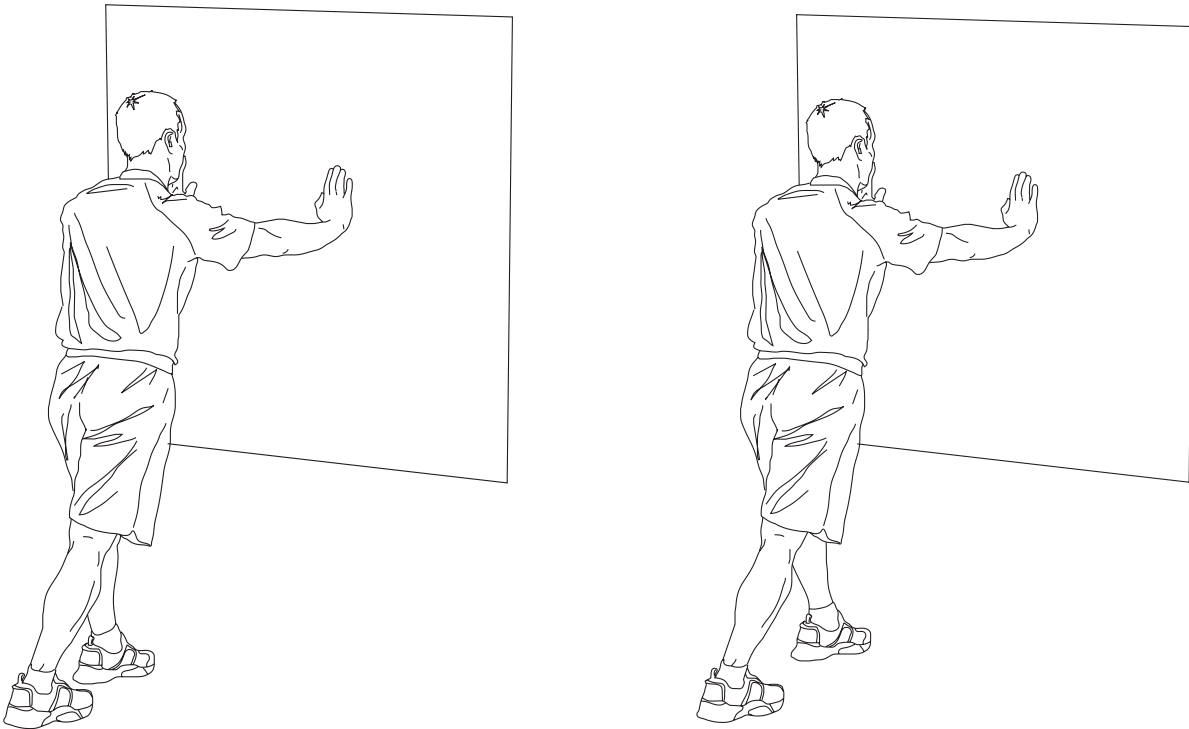


Gastroc/Soleus Stretch

Starting Position- Athlete should stand with the support of a wall with the involved leg behind. The front foot should cross over the midline of the body so that the back leg is slightly toward the opposite side.

Execution at a Glance- Rotate the foot of the back leg inward (medially). The back heel should remain in contact with the floor. Lean forward and bend the involved (back leg) to target the soleus. Keep the back leg straight to target the gastroc. The stretch is held for 5-7 seconds and is repeated bilaterally for 3-5 repetitions.

Safety Tips and Verbal Cueing- The athlete must maintain heel contact during the stretch, and the foot should maintain a slight medial rotation. To increase the intensity of the stretch, a slight elevation may be added to the forefoot. Take special note of right and left asymmetries, focusing on the weakness.

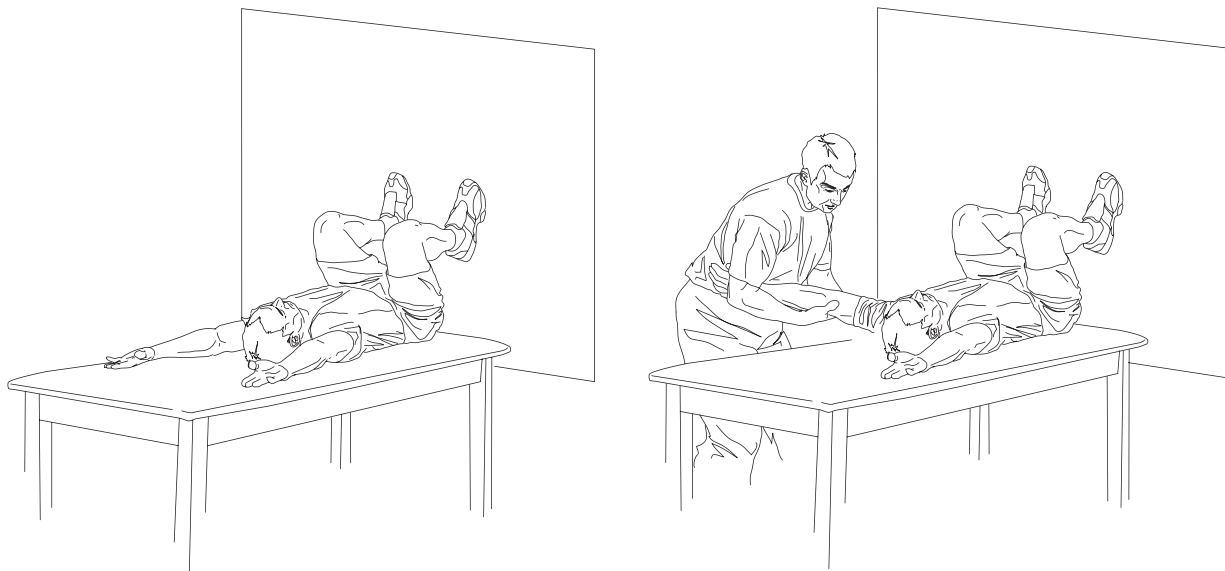


Partner Stretch Latissimus Dorsi/External Rotation Stretch

Starting Position- Athlete lies supine with hips flexed, knees flexed and feet resting on a wall or bench. The hips should be positioned as close to wall as possible. The shoulders at 90 degrees of abduction with elbows extended.

Execution at a Glance- Partner grasps wrist and elbow of arm being stretched and applies slight traction. The partner then externally rotates the shoulder while keeping the slight traction. The stretch is held for 5-7 seconds and is repeated bilaterally for 3-5 repetitions.

Safety Tips and Verbal Cueing- The athlete must maintain a flat upper back during stretch and traction should be continued throughout the activity. The hips should be flexed greater than 90 degrees. Take special note of right and left asymmetries, focusing on the weakness.

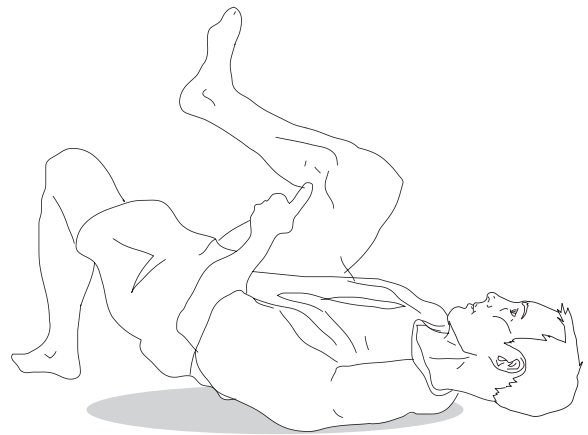


Leg Lock Bridge

Starting Position- Begin by lying supine with one leg flexed at the hip, and hold one thigh to chest for passive lock, the thigh should maintain contact with the chest throughout movement. The opposite foot is placed on the ground in-line with the center of the body with the knee flexed. This foot position should be maintained throughout movement.

Execution at a glance- The athlete should push down with the foot on the floor and extend the hip in order to bring the hips off the ground into a bridge position. The height of the bridge should be limited to where the flexed hip and thigh remain against the chest and the extended hip and thigh remain in an in-line position. This should be performed 3-5 sets at 10-15 repetitions, any asymmetries should be addressed accordingly with sets and reps.

Safety Tips and Verbal Cueing- A ball or pillow can be placed between the thigh and chest of the flexed hip in order to provide feedback during the execution of the exercise to maintain hip flexion and passive locking. The foot, knee and thigh of the extended hip must also remain in an in-line position. If the athlete is having hamstring cramping then the foot can be raised onto a step, coreboard or platform to increase hip flexion starting position. Take special note of right and left side asymmetries and address them appropriately with sets and reps.



Shoulder Mobility Corrective Exercise Progressions

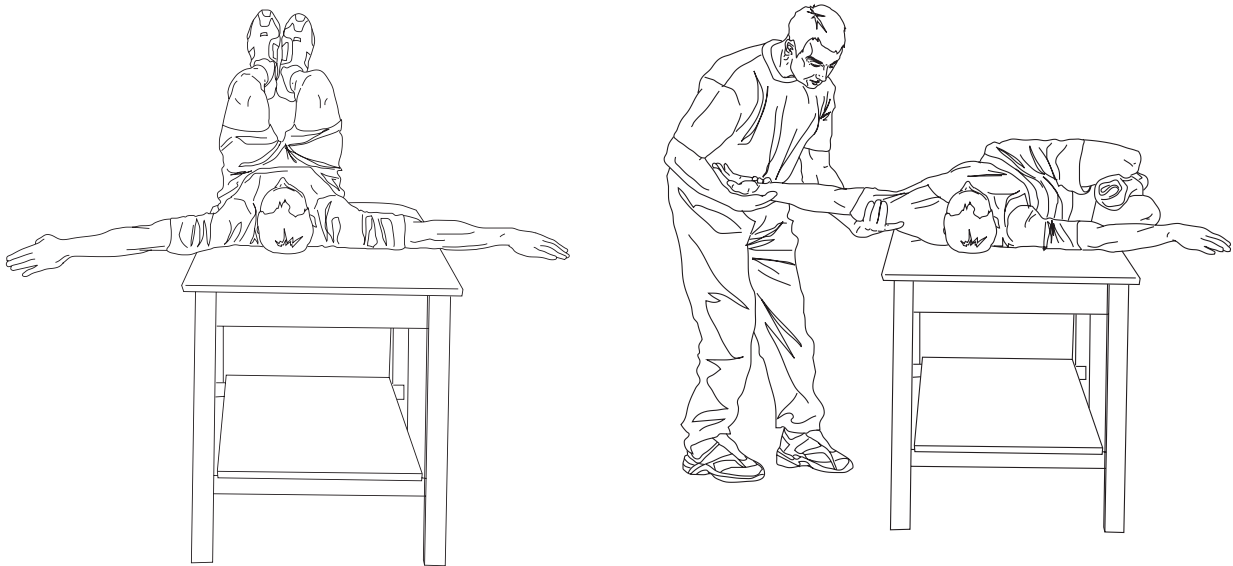
Partner Stretch

Trunk Rotation with Shoulder Internal/External

Starting Position- Athlete lies supine with hips flexed and knees flexed and shoulders at 90 degrees of abduction with elbows extended.

Execution at a Glance- Partner grasps wrist and elbow of arm being stretched and applies slight traction. The athlete then rotates lower body to the opposite side while maintaining a flat upper back. The hand to which the legs are rotated should be palm down. The partner then internally and externally rotates the shoulder while keeping the slight traction. The stretch is held in each direction for 5-7 seconds and is repeated bilaterally for 3-5 repetitions.

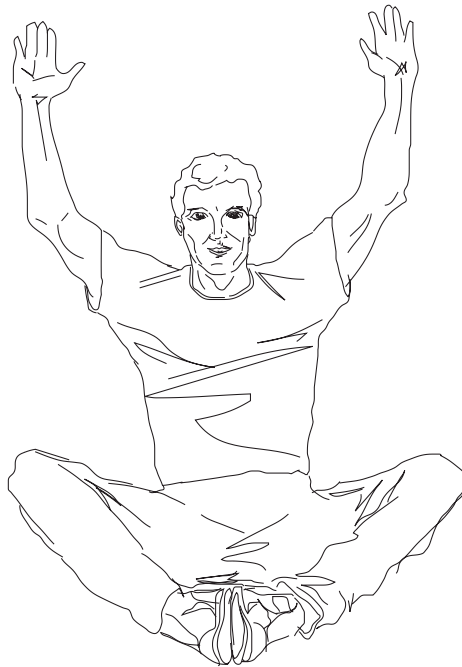
Safety Tips and Verbal Cueing- The athlete must maintain a flat upper back during the stretch and traction should be continued throughout the activity. The hips should be flexed greater than 90 degrees throughout the rotation of the legs. Take special note of right and left asymmetries, focusing on the weakness.



Wall Sit with Shoulder Press

Purpose- Hip mobility, strength and mobility of upper extremity, core stability.

Exercise description- Sit on floor, with back against the wall and soles of feet together, pulled towards body. Hold arms out to side against the wall, with elbows flexed to 90 degrees. Place back of hands flat against wall or as close to wall as possible. Press hands upward towards ceiling. Press knees towards floor at the same time as raising arms up over head. Perform the pressing as far as possible while keeping the hands against the wall, or as close to the wall as possible.



Active Straight Leg Raise Corrective Exercise Progressions

Partner Stretch Straight Leg Raise

Starting Position- Athlete lies supine with knees and hips extended, ankles dorsiflexed and toes pointing up.

Execution at a glance- Partner assists the athlete in flexing one hip while maintaining knee extension and ankle dorsiflexion. The hip is flexed until a stretch is felt. The stretch is held for 5-7 seconds. The athlete then presses into the partner by extending the hip for 3-5 seconds. The athlete should relax and then the partner increases the stretch slightly. Repeat 3-5 times.

Safety Tips and Verbal Cueing- Make sure the athlete maintains proper position. The leg that remains in extension must remain in a neutral position, without external rotation at the hip. The knee must also maintain contact with the table/floor. Take special note of right and left asymmetries, focusing on the weakness.

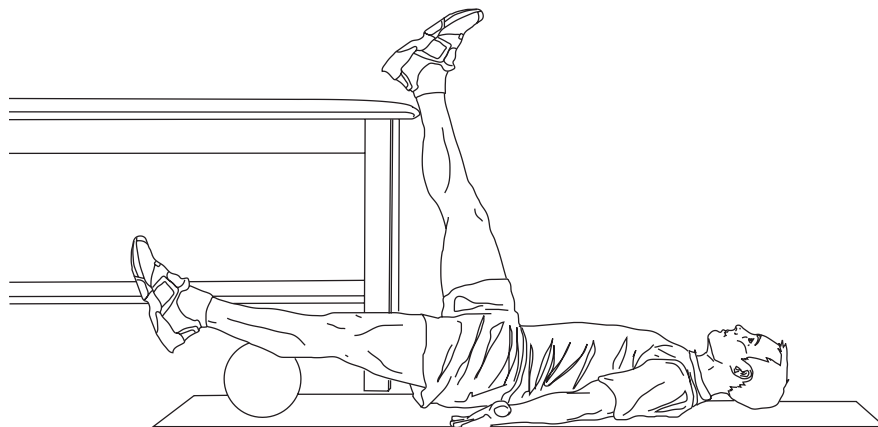
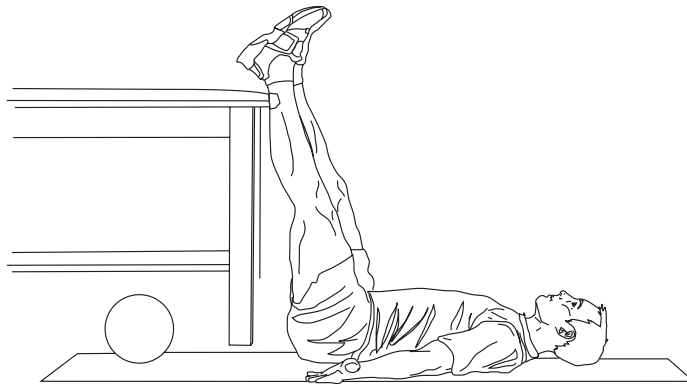


Single Leg Lowering 1

Starting Position- Begin lying supine with legs in a doorway, flex both hips and extend knees. Place one foot on wall with hip flexed and knee extended for slight stretch. The opposite hip is flexed with the knee extended for a slight stretch. Your hands should be placed with palms up by your side and your head flat.

Execution at a glance- Begin by pointing toes of the moving leg and reaching out toward the ceiling. Lower the leg to floor/ground maintaining flat lumbar spine, place a bolster under the foot if the athlete has difficulty lowering the leg to the floor. (Progress by removing bolster) Perform movement 5-10 times bilateral for 3-5 sets.

Safety Tips and Verbal Cueing- Maintain flat lumbar spine and keep toes pointed and reaching with leg. Keep palms facing upward and head flat. Utilize bolster in order to perform exercise correctly. Take special note of right and left asymmetries, focusing on the weakness. Take special note of right and left asymmetries, focusing on the weakness.



Single Leg Lowering 2

Starting Position- Begin lying supine, flex both hips and extend knees until a slight stretch is felt. Your hands should be placed with palms up by your side and your head flat.

Execution at a glance- Begin with the toes pointed, reaching out toward the ceiling. Lower one leg to the floor/ground maintaining flat lumbar spine, place a bolster under the foot if the athlete has difficulty lowering leg to floor (progress by removing bolster). Perform movement 5-10 times bilateral for 3-5 sets.

Safety Tips and Verbal Cueing- Maintain a flat lumbar spine and keep the toes pointed. Keep palms facing upward and head flat. Utilize bolster in order to perform exercise correctly. Take special note of right and left asymmetries, focusing on the weakness.



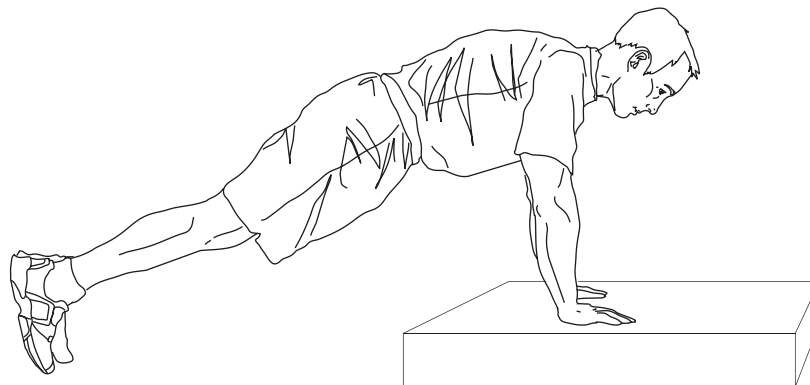
Trunk Stability Push-Up Corrective Exercise Progressions

Incline Push-up Progression

Starting Position- Begin by placing hands on incline(box, wall, table, etc.) height is dependent upon ability to perform push-up properly. The lower the incline the more difficult to perform exercise. You should progress by lowering the incline until you are performing the push-up on the floor.

Execution at a glance- Perform a push-up from this position, flexing elbows and extending shoulders. Press upward to start position and repeat. Perform 10-15 repetitions for 3-5 sets.

Safety Tips and Verbal Cueing- Maintain a flat or neutral lumbar spine position. Varying foot position may increase or decrease difficulty. Take special note of right and left asymmetries, focusing on the weakness.

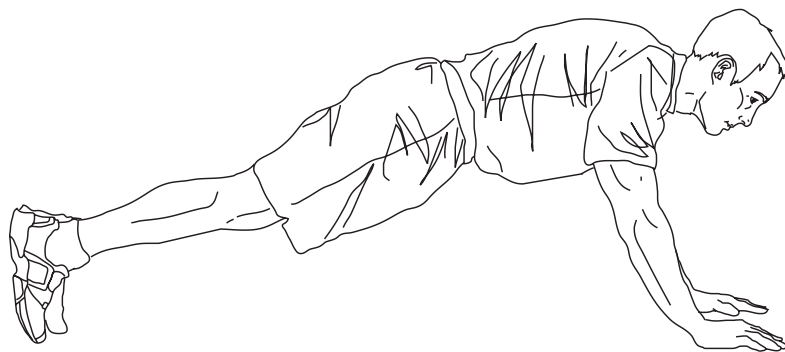


Push-up Walkout

Starting Position- Begin standing with feet together and hands by your side.

Execution at a glance- Bend over and touch floor with hands. The knees can flex slightly. Walk hands out in front of body maintaining a flat lumbar spine. Walk hands out as far as possible without losing neutral lumbar spine. Walk hands back towards body and stand. Perform 5-15 repetitions for 3-5 sets.

Safety Tips and Verbal Cueing- Maintain flat lumbar spine without hyperextension. Do not walk out too far; continue to keep proper form. Begin with short distance and work to farther distance. Take special note of right and left asymmetries, focusing on the weakness.



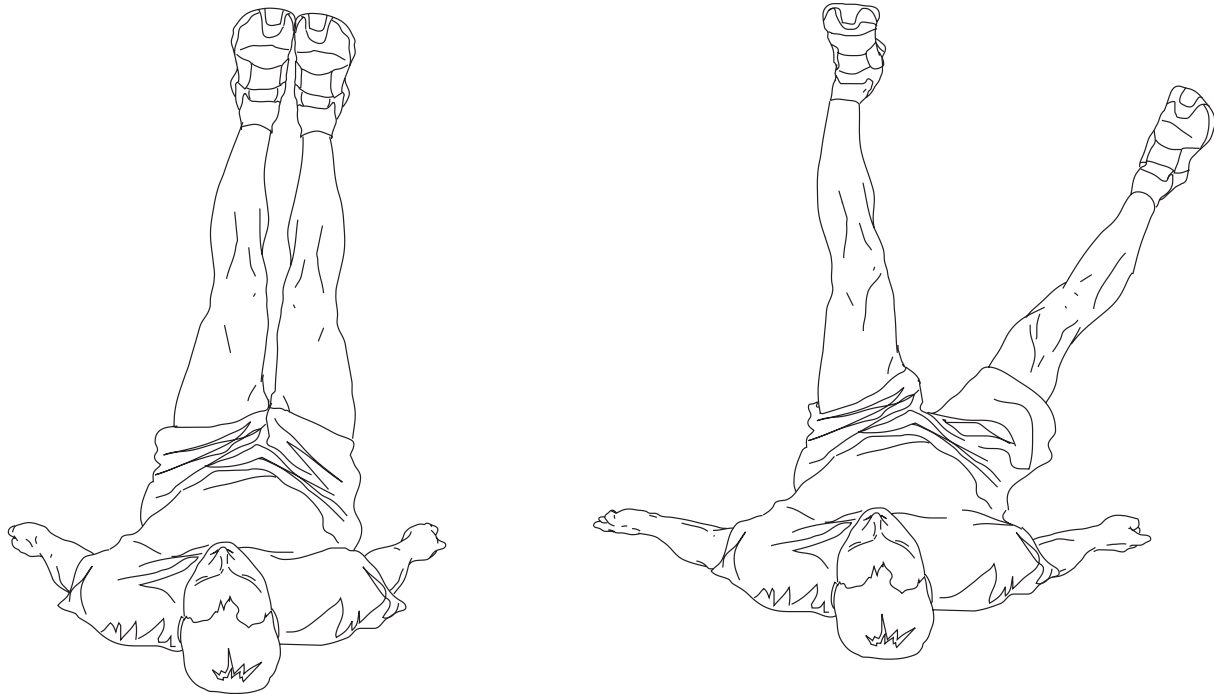
Rotary Stability Corrective Exercise Progressions

Bilateral Hip flexed rotation

Starting Position- Begin lying supine with hips flexed, in order to attain a flat lumbar spine. Extend knees and point toes with feet together. The hands should be placed on the floor with palms up and shoulders should be abducted to 90 degrees and elbows extended.

Execution at a glance- Keep one leg in starting position and abduct one leg in order to move hips. Once hips can move independently, move them together. The pelvis should continue to remain flat. Perform 5-15 repetitions for 3-5 sets.

Safety Tips and Verbal Cueing- The non-moving foot should remain stable and pointing straight during activity. The lumbar spine should remain flat with the posterior superior iliac spine maintaining contact with the floor. Make sure to begin with small circles and progress without compromising position and stability. The movement should be slow and controlled. Take special note of right and left asymmetries, focusing on the weakness.

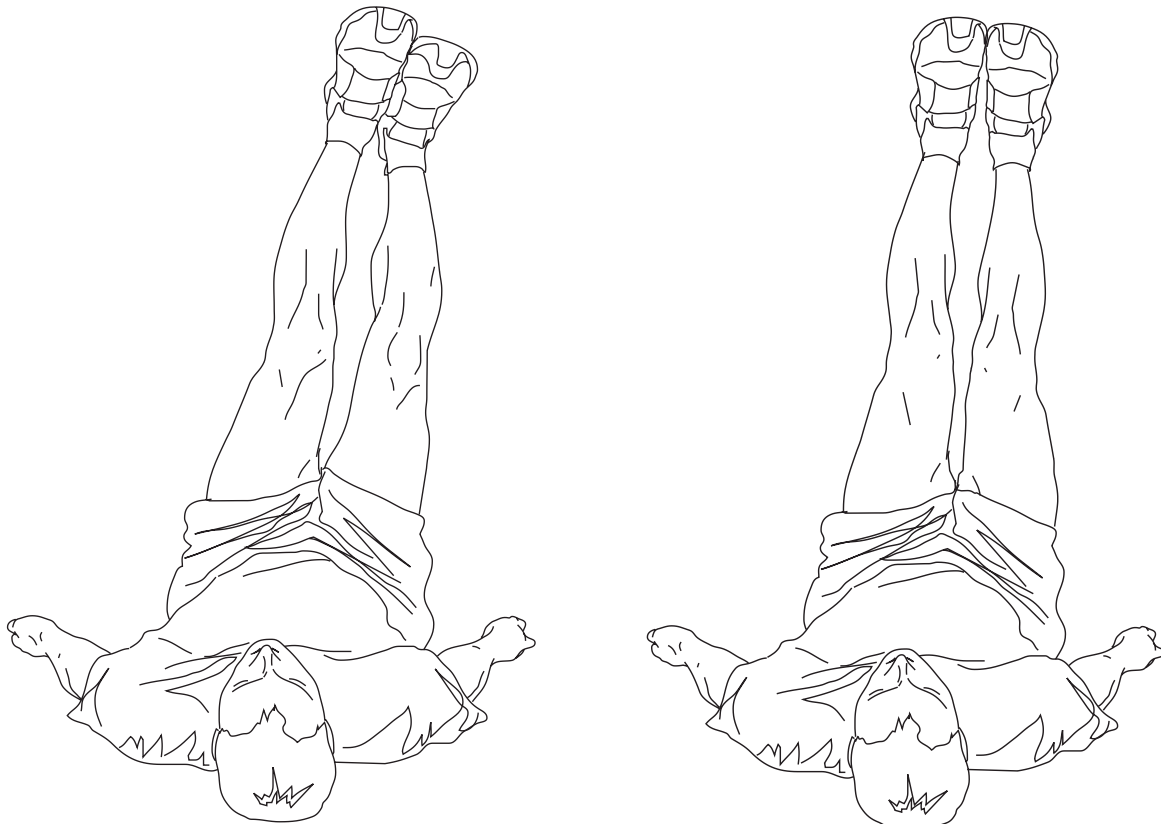


Hip flexed torso rotation

Starting Position- Begin lying supine with hips flexed, in order to attain a flat lumbar spine. Extend knees and point toes with feet together. The hands should be placed on the floor palms up and shoulders should be abducted to 90 degrees and elbows extended.

Execution at a glance- Keeping feet together, in clockwise and counterclockwise motion, begin rotating hips and pelvis left and right while keeping shoulders flat. Make an arc of movement as large as possible with no upper body movement. Perform 5-15 repetitions for 3-5 sets.

Safety Tips and Verbal Cueing- The hips should be flexed at 90° throughout, and lower only as far as you can control. Take special note of right and left asymmetries, focusing on the weakness.

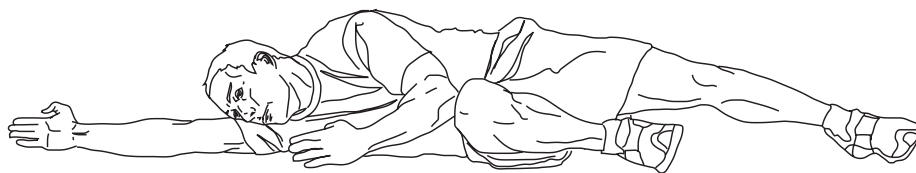
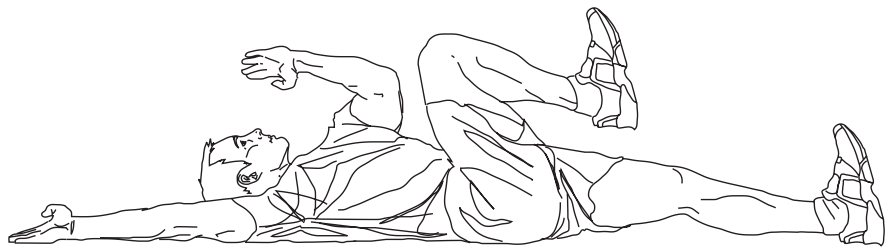


Rolling

Starting Position- Begin lying supine with knees extended and feet dorsi-flexed, toes pointing upward. The arms should be extended and reaching overhead.

Execution at a glance- Perform abdominal draw. Flex one hip and extend the shoulder opposite of it in an attempt to touch the knee and elbow. The opposite hip and knee should remain in extension. Begin to roll to the side of the flexed hip and knee maintaining close proximity with the knee and elbow. Roll to the side while supporting the head on the opposite, flexed shoulder. Perform 5-15 repetitions for 3-5 sets.

Safety Tips and Verbal Cueing- The non-moving leg should remain extended during activity. Close proximity of the moving limbs should be reinforced. Take special note of right and left asymmetries, focusing on the weakness.



CONCLUSION

This training system takes a slightly different approach in the fact that it focuses on assessing and improving the body's imbalance or weakness by first assessing movement patterns. The Functional Movement Screen was designed to assist you in determining the source of an individual's movement problems. The body's movement inefficiencies underlie strength, endurance, coordination, speed, agility and power problems. The exercise progressions were developed to improve the specific fundamental movement pattern. If this can be accomplished and the body can begin to move more efficiently, then the performance of the individual will improve.

This system has the potential to be proactive in injury prevention and performance improvement. Our goal is to gather information and continue research on this system. In order to accomplish this goal and to continue to improve this system, we seek feedback from professionals such as yourself. Through continued research and data collection, we can work to refine this system, and develop new, more creative ways of improving performance and preventing the body's breakdown.

APPENDIX A:

References/Publications

- Cook, G. "Weak Links: Screening an athlete's movement patterns for weak links can boost your rehab and training efforts" *Train Cond.* 12:3; 29-37,2002.
- Cook, G, Voight, M. *Essentials in Functional Exercise: A Four-Step Clinical Model for Therapeutic Exercise Prescription*. In: Prentice, WE, Voight MI, eds. *Techniques in Musculoskeletal Rehabilitation*. New York, NY: McGraw-Hill Inc; 2001: 387-410.
- Cook, G. *Baseline Sports-Fitness Testing*. In: B. Foran, eds. *High Performance Sports Conditioning*. Champaign, IL: Human Kinetics Inc; 2001: 19-47.
- Cook G, Burton L, Fields K. *Reactive Neuromuscular Training for ACL Deficient Knee: Case Report Journal of Athletic Training*, 34:2, 1999.
- Cook, G, Burton, L, Kiesel, K, Van Allen, J- "The Functional Movement Screen, Upper and Lower Quarter Applications", March 14-15, 1999; Sioux Falls, South Dakota,
- Cook G, Fields K, Conca S. *Strength and Conditioning for Baseball: A Functional Approach*. *Train Cond.* 1998
- Cook G, Fields K, Burton L. *Where Flexibility Meets Football*. *Train Cond.* 1997;7;49-55.
- Cook G, Fields K. *Functional Training for the Torso*. *Strength & Conditioning*. 19:2;14-19,1997.
- Fields K, Cook G. *Considering All Angles*. *Train Cond.* 1997.
- Voight, M.L. & Cook, G. *Clinical Application of Closed Kinetic Chain Exercise*. *Journal of Sport Rehabilitation*. 1996;5,25-44.

APPENDIX B:

Scoring Sheets

NAME: _____ AGE: _____ HEIGHT: _____

WEIGHT: _____ MALE / FEMALE PHONE: _____

ADDRESS: _____

SPORT/ACTIVITY REFERENCE: _____

HAND DOMINANCE: RIGHT LEFT LEG DOMINANCE: RIGHT LEFT

TEST	RAW SC	FINAL	COMMENTS
DEEP SQUAT			
HURDLE ST. L			
HURDLE ST. R			
IN-LINE LUN. L			
IN-LINE LUN. R			
SHO. MOB. L			
SHO. MOB. R			
ACTIVE IMP. L			
ACTIVE IMP. R			
ASLR L			
ASLR R			
TSPU			
EXT			
ROT. STAB. L			
ROT. STAB. R			
FLX			
TOTAL			

APPENDIX C:

Functional Movement Screen Corrective Exercise Program

Corrective Exercise or Stretch	Sets and/or Reps	Days per Week	Week 1 (check)	Week 2 (check)	Week 3 (check)	Week 4 (check)

Perform the listed exercises or stretches recommendations over the 4-week training period.

APPENDIX D:

Reevaluate the screens every 4 weeks.

Equipment order information

For other Products and ordering please visit our website: www.functionalmovement.com

Gray's Functional Movement Screening and Exercise Progressions for the Personal Trainer: 3 DVD w/ CDRom or 5 Video set w/ CDRom:

These DVDs and CD-ROM feature Gray's lecture on the basic principles of RNT, proprioception and movement screening. Gray has an informal interview with Gin Miller on the most frequently asked questions about his work taken from a poll of personal trainers and exercise professionals.

- Gray demonstrates how to first assess movement patterns and then use corrective exercise progressions to gain quick and effective results right on camera.
- Develop a command of the human body and offer your clients quick solutions to nagging problems that no one else is recognizing.

Gray's Reactive Neuromuscular Training Video Set

These DVDs feature Gray's lecture on the basic principles of RNT, proprioception and movement screening with Gin Miller (Reebok Master Trainer). Gray then has an informal interview with Gin on the most frequently asked questions about his work taken from a poll of personal trainers and exercise professionals.

Functional Movement Progressions Video Set

- Throughout this 3-tape set, Gin Miller (Reebok Master Trainer and inventor of STEP) questions Cook as he demonstrates how to first assess movement patterns and then use corrective exercise progressions to gain quick and effective results right on camera.
- These videos are unrehearsed and shot in one take as Cook progresses two individuals through corrective exercises.
- Learn how to get impressive results in little time.
- Develop a command of the human body and offer your clients quick solutions to nagging problems that no one else is recognizing.
- Use the Functional Movement Progressions 3-tape set as an upgrade for the personal trainer who appreciates what Cook has accomplished in "Athletic Body in Balance".

The Functional Movement Screen and Corrective Exercises Video Set

The video series features Gray Cook's Functional Movement Screen (Testing System). The information presents a paradigm shift in the way movement is tested and trained. The first video demonstrates and discusses the functional movement screen and exercise progression for each movement pattern. The second tape reviews advanced core training and specific medicine ball training. This educational Set contains two videos, CD-ROM with an instructional Training Manual.

The Functional Movement Screen and Corrective Exercises Poster Set

This informational 5 Poster Set and CD-ROM provides an easy reference to the Gray Cook Functional Movement Screen and Treatment Philosophy. This poster set is the perfect companion to the Core Training System.

- Wall Chart provides instructions for Functional Movement Screening
- Visual Reference for Trigger Point Management and Stretching for each movement screen pattern
- Easy to follow reference for Corrective Exercise Progressions
- Drills for both individual and partner techniques
- Each picture provides quick reference for athlete/client and patient
- Provides corrective exercise progressions from lower level partner stretches to higher level performance enhancement techniques
- CD-ROM contains presentations for each poster, which provides scientific background information for each movement technique
- Complements and provides the most up to date information based on Gray Cook's Functional Movement Screen and Corrective Exercise Techniques