



Knee & Hip Exercises & Stretches

Perform each Exercise 4 times per week as: 10 repetitions , 2 sets

Hip Flexion (Standing)

- Attach elastic to secure object at ankle level.
- Loop band around ankle.
- Stand, facing away from the pull.
- Extend leg forward, keeping knee straight.
- Slowly return to start position and repeat.



Hip External Rotation

- Attach elastic to secure object at ankle level.
- Loop elastic around ankle, positioned as shown.
- Pull ankle inward.
- Slowly return to starting position and repeat.



Hip External Rotation

- Attach elastic to secure object at ankle level.
- Loop elastic around ankle, positioned as shown.
- Pull ankle inward.
- Slowly return to starting position and repeat.

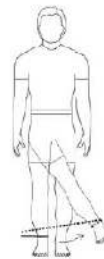
Hip Abduction + External Rotation (Clam)

- Loop elastic around thighs.
- Lie on back propped on elbows with knees bent.
- Move thighs apart.
- Return to start position and repeat.



Hip Abduction + External Rotation (Clam)

- Loop elastic around thighs.
- Lie on back propped on elbows with knees bent.
- Move thighs apart.
- Return to start position and repeat.



Hip Adduction

- Attach elastic to secure object at ankle level.
- Stand with involved leg toward pull, as shown.
- Keep knee straight, pull in, moving leg inward.
- Slowly return to start position.

Knee Flexion (Sitting)

- Attach elastic to secure object.
- Sit in chair, attach elastic to ankle of involved leg as shown.
- Pull heel under chair through full range, as shown.
- Slowly return to starting position.



Hip Internal Rotation

- Attach elastic to secure object at ankle level.
- Loop elastic around ankle, positioned as shown.
- Pull ankle outward.
- Slowly return to starting position and repeat.



Knee Extension (Sitting)

- Attach elastic to ankle of involved leg.
- Secure behind as shown.
- Sit, with leg bent to 90 degrees, as shown.
- Straighten leg at knee.
- Slowly return to start position.



Knee & Hip Exercises & Stretches

Seated Rotation Stretch

Repetitions	Main muscles worked: Piriformis You should feel this stretch in your buttocks, as well as at your sides
2 sets of 4	
Days per week	Equipment needed: None
Daily	

Step-by-step directions

- Sit on the floor with both legs straight in front of you. Cross one leg over the other.
- Slowly twist toward your bent leg, putting your hand behind you for support.
- Place your opposite arm on your bent thigh and use it to help you twist further.
- Look over your shoulder and hold the stretch for 30 seconds. Slowly come back to center.
- Reverse leg positions and repeat the stretch on the other side. Repeat the entire sequence 4 times.

Tip: Keep your sit bones pressed into the floor throughout the stretch.



Hip Abduction

Repetitions	Main muscles worked: Gluteus medius, abductors You should feel this exercise at your outer thigh and buttocks
8	
Days per week	Equipment needed: Begin with a weight that allows 8 repetitions and progress to 12 repetitions. As the exercise becomes easier, add weight in 1-pound increments. Each time you increase the weight, start again at 8 repetitions, working back up to 12.
2 to 3	

Step-by-step directions

- Lie on your side with your injured leg on top and the bottom leg bent to provide support.
- Straighten your top leg and slowly raise it to 45°. Keep your knee straight, but not locked.
- Hold this position for 5 seconds.
- Slowly lower your leg and relax it for 2 seconds.
- Repeat, then complete exercise on the other side.

Tip: Do not turn your leg in an effort to raise it higher. The outside of your thigh should be lifted toward the ceiling.



Hip Adduction

Repetitions	Main muscles worked: Adductors You should feel this exercise at your inner thigh
8	
Days per week	Equipment needed: Begin with a weight that allows 8 repetitions and progress to 12 repetitions. As the exercise becomes easier, add weight in 1-pound increments. Each time you increase the weight, start again at 8 repetitions, working back up to 12.
2 to 3	

Step-by-step directions

- Lie on the side of your injured leg with both legs straight.
- Bend your top leg and cross it over your injured leg.
- Raise your injured leg 6" to 8" off of the floor.
- Hold this position for 5 seconds.
- Slowly lower your leg and rest for 2 seconds.
- Repeat, then complete exercise on the other side.

Tip: Place your hand on the floor in front of your abdomen to prevent you from leaning backward.



Heel Cord Stretch

Repetitions	Main muscles worked: Gastrocnemius-soleus complex You should feel this stretch in your calf and into your heel
2 sets of 4	
Days per week	Equipment needed: None
6 to 7	

Step-by-step directions

- Stand facing a wall with your unaffected leg forward with a slight bend at the knee. Your affected leg is straight and behind you, with the heel flat and the toes pointed in slightly.
- Keep both heels flat on the floor and press your hips forward toward the wall.
- Hold this stretch for 30 seconds and then relax for 30 seconds. Repeat.

Tip: Do not arch your back.



Standing Quadriceps Stretch

Repetitions	Main muscles worked: Quadriceps You should feel this stretch in the front of your thigh
2 to 3	
Days per week	Equipment needed: None
4 to 5	

Step-by-step directions

- Hold on to the back of a chair or a wall for balance.
- Bend your knee and bring your heel up toward your buttock.
- Grasp your ankle with your hand and gently pull your heel closer to your body.
- Hold this position for 30 to 60 seconds.
- Repeat with the opposite leg.

Tip: Do not arch or twist your back.



Half Squats

Repetitions	Main muscles worked: Quadriceps, gluteus, hamstrings You should feel this exercise at the front and back of your thighs, and your buttocks
3 sets of 10	
Days per week	Equipment needed: As the exercise becomes easier to perform, gradually increase the resistance by holding hand weights. Begin with 5 lb. weights and gradually progress to a greater level of resistance, up to 10 lb. weights.
4 to 5	

Step-by-step directions

- Stand with your feet shoulder distance apart. Your hands can rest on the front of your thighs or reach in front of you. If needed, hold on to the back of a chair or wall for balance.
- Keep your chest lifted and slowly lower your hips about 10 inches, as if you are sitting down into a chair.
- Plant your weight in your heels and hold the squat for 5 seconds.
- Push through your heels and bring your body back up to standing.

Tip: Do not bend forward at your waist.



Calf Raises

Repetitions	Main muscles worked: Gastrocnemius-soleus complex You should feel this exercise in your calf
2 sets of 10	
Days per week	Equipment needed: Chair for support
6 to 7	

Step-by-step directions

- Stand with your weight evenly distributed over both feet. Hold onto the back of a chair or a wall for balance.
- Lift your unaffected foot off of the floor so that all of your weight is placed on your affected foot.
- Raise the heel of your affected foot as high as you can, then lower.
- Repeat 10 times.

Tip: Keep your weight centered on the ball of your working foot.

