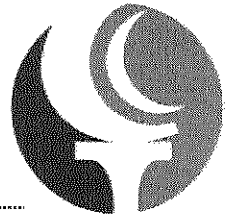
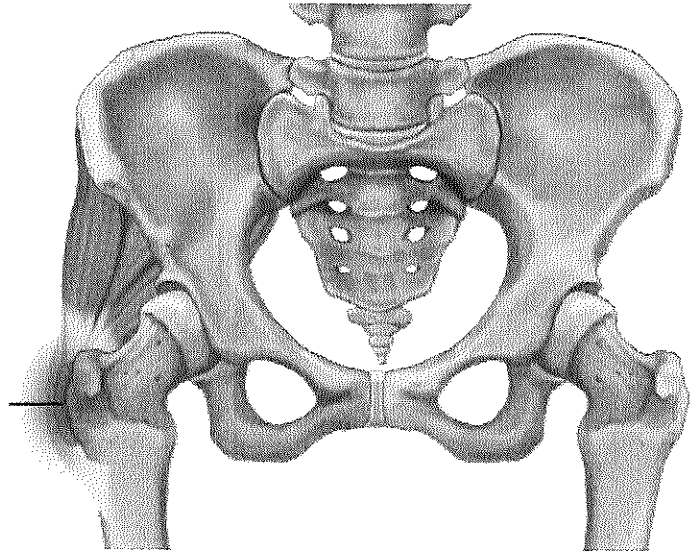


EXERCISES FOR TROCHANTERIC BURSTITIS



What is “Trochanteric Bursitis”?

The hip has a large prominent bump along the outside of the thigh bone known as the greater trochanter. Many of the muscles that move the hip joint connect to this bump through tendons. A fluid-filled sac (the trochanteric bursa) acts to lubricate the different layers of tendons and allows them to glide past one another. The Iliotibial (IT) band is a long tough band of tissue that runs from the pelvis past the trochanter of the hip all the way to the outside of the knee.



Trochanteric pain is often caused from irritation of the trochanteric bursa and surrounding tendons on the side of the hip. A patient with an arthritic or replaced hip can also experience pain in this area. In rare cases the pain can be caused from a torn tendon or be related to pain from the low back. Today these conditions have been grouped together and are now called **Greater Trochanter Pain Syndrome (GTPS)**.

Signs and Symptoms

GTPS is more common in females and usually occurs after age 40. Patients usually report pain and tenderness directly over the trochanter. The pain may also run down the outside of the leg along the IT band to the knee. Some patients report trochanteric pain that gets worse going up/down stairs, when crossing their legs, when trying to put on socks, or when trying to sleep on their affected side. Oftentimes extra pressure over the outside of the hip (from a seatbelt or narrow chair) can also cause pain. Some patients may report a snapping sensation as the IT band moves over the trochanter with particular activities. This snapping is not a sign of your hip dislocating, but it is the irritated tendons rubbing past one another.

Treatment

Conservative treatment in the form of stretching and strengthening usually helps with the majority of patients with trochanteric bursitis. This issue is often the result of soft tissue irritation, therefore rest, ice, anti-inflammatory medications, physical therapy exercises, and/or injections are effective treatment options.

REST – Avoid aggravating activities such as lying on the affected side

ICE – Apply ice for 15-20 minutes to the affected area every 6-8 hours.

ANTI-INFLAMMATORY MEDICATIONS – Nonsteroidal anti-inflammatory drugs (NSAIDs) (Ibuprofen, Naproxen, Meloxicam, Acetaminophen) may help decrease the pain and swelling. You can also try topical creams/gels, such as diclofenac or capsaicin to help dull the pain.

INJECTIONS – You may be a candidate for a steroid injection into the trochanteric bursa to help with pain and swelling

EXERCISES – An exercise program is highly recommended to help with the affected muscles.

The American Association of Hip and Knee Surgeons (**AAHKS**) has prepared a set of stretching and strengthening exercises to help with your trochanteric bursitis. Remember it may take 4-6 weeks to see improvement in the pain and discomfort. If the pain does not subside after this time period, we encourage you to contact your physician. Remember surgery is rarely needed for GTPS. An injection combined with an exercise program is usually the most effective way to address trochanteric bursitis.

GENERAL TIPS FOR EXERCISING

Talk to your healthcare provider first

Stretch **SLOWLY** and in a controlled manner, avoid sudden or rapid motions

Hold the stretch to the point you feel mild discomfort and relax as tolerated

MODIFY STRETCHES TO ACCOMMODATE FOR A PRIOR HIP OR KNEE REPLACEMENT

You can expect some soreness when you first start a stretching program

DISCLAIMER

PLEASE USE THESE EXERCISES AS A GUIDE AS IT IS ULTIMATELY BETWEEN YOU AND YOUR SURGEON TO DECIDE WHICH EXERCISES ARE RIGHT FOR YOU. IF YOU EXPERIENCE ANY ABNORMAL DISCOMFORT, DIZZINESS, OR FEELINGS OF PASSING OUT, PLEASE STOP EXERCISING AND CONTACT YOUR PHYSICIAN AS SOON AS POSSIBLE.



Stretching and strengthening exercises are key to managing symptoms of trochanteric bursitis. A good stretching routine should be performed **2-3 times a day** to keep the muscles around the hip joint from getting too tight. In the beginning, we recommend stretching morning and evening. As your muscles become more flexible, you can then stretch once a day to keep the muscles limber.

GENERAL TIPS FOR STRETCHING EXERCISES:

Warm-up: Complete the stretching exercises before strengthening exercises

Perform slow steady motions until you feel a **TOLERABLE DISCOMFORT**; adjust tension to your comfort

Hold for the position up to **30 seconds** as tolerated, and at least for a minimum of 5 seconds

Slowly return to the original starting position

Take a deep breath and **relax for 5 seconds** between repetitions

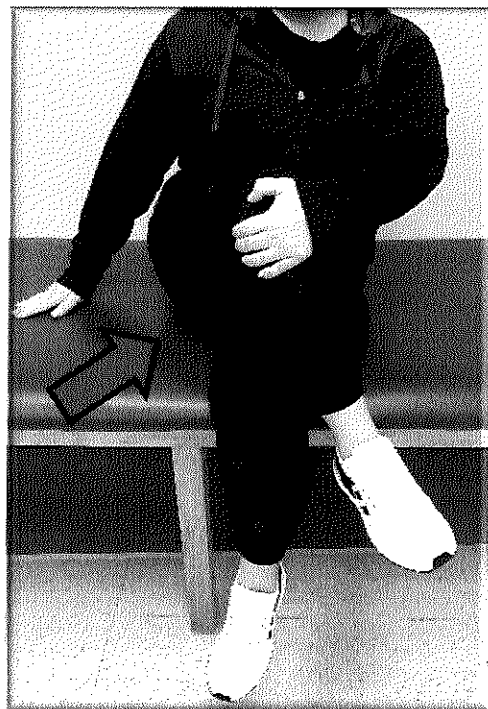
Cool-down: Apply ice to the trochanter region of the hip for 5-10 minutes after your exercise routine

PIRIFORMIS STRETCH



The piriformis is an important muscle that runs from your tailbone across your buttock to the back of your hip. Stretching the piriformis is key when starting your exercise routine for trochanteric pain. This stretch can be performed several times a day to help keep the hip muscles from getting tight. **This exercise should be performed on both legs.**

1. Begin by sitting upright on a chair or other firm surface
2. Slowly bring the affected leg across the other
3. Using your hands, slowly pull the knee towards your opposite shoulder (You should feel a stretch along the back of you hip and buttock)
4. Try to hold for **30 seconds**
5. Slowly return to the starting position



EXERCISE MODIFICATIONS

HIP REPLACEMENT: Please check with your surgeon before performing this particular exercise – You may need to limit your motion based on your surgeon's guidelines

KNEE REPLACEMENT: You should bend the knee to a comfortable position that does not place additional stress on you knee replacement(s)

REPS PER SET	HOLD STRETCH	# OF SETS
5-10	5-30 SECONDS	3

ILIOTIBIAL (IT) BAND STRETCH



A tight IT band can irritate the muscles and bursa around the hip trochanter. We recommend stretching this band in two different ways. Be sure to check with your surgeon before attempting either stretch. It is important to perform this exercise on both legs.

SIMPLE IT BAND STRETCH



1. Begin by crossing your affected leg over the other
2. Remember to keep your opposite knee straight as you lean forward trying to touch your toes until a tolerable stretch is felt along the outside of your hip
3. Try to hold for **30 seconds**.
4. Slowly return to the starting position

This exercise should be performed on both legs

REPS PER SET	HOLD STRETCH	# OF SETS
5-10	5-30 SECONDS	3

EXERCISE MODIFICATION
HIP REPLACEMENT: Please check with your surgeon before performing this particular exercise – You may need to limit your motion based on your surgeon's guidelines



First start with the standing stretch (**SIMPLE**) and then move to the side lying stretch (**ADVANCED**). Be sure to check with your surgeon before attempting either stretch. It is important to perform this exercise on both legs.

ADVANCED IT BAND STRETCH

1. Begin by lying on your affected side with your hip region over a firm foam roll
2. Remember to keep your bottom leg straight. You can use your opposite leg and arms for support
3. Slowly move your hip over the foam roll so that the roll slides along your IT band toward your knee and then back towards your hip
4. Slowly perform for **30 seconds** before returning to the starting position



REPS PER SET	HOLD STRETCH	# OF SETS
5-10	5-30 SECONDS	3

EXERCISE MODIFICATIONS

HIP REPLACEMENT: Please check with your surgeon before performing this particular exercise – You may need to limit your motion based on your surgeon's guidelines

KNEE REPLACEMENT: You should bend the knee to a comfortable position that does not place additional stress on your knee replacement(s)

HAMSTRING STRETCH SEATED



Tight hamstring muscles can also contribute to trochanteric bursitis. We present three different ways to perform a hamstring stretch. Please select an option that both you and your surgeon are comfortable with. Remember that the hamstring muscles can be stretched differently depending on which position you choose. Therefore we recommend alternating the hamstring stretch from time to time. **This exercise should be performed on both legs.**



1. Begin by sitting in a hardback chair, prop your leg on a stool or chair directly in front of you
2. While keeping your back straight, slowly reach for your toes while at the same time keeping your knee straight. **Remember to keep your toes pointed towards the ceiling at all times.** (You will feel a stretch along the back of your thigh)

3. Try to hold for **30 seconds**

4. Slowly return to the starting position



EXERCISE MODIFICATION

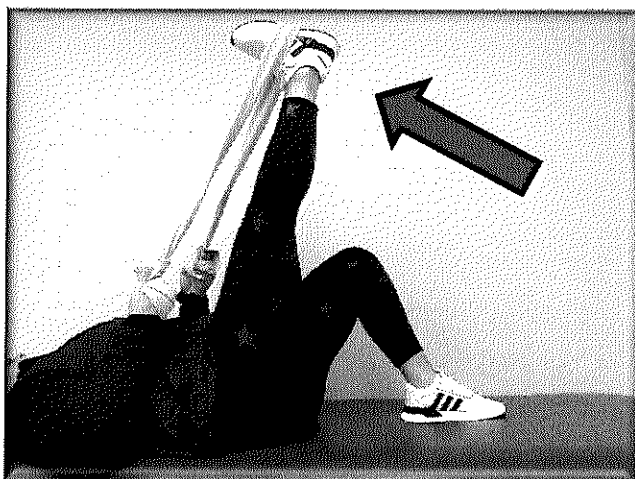
HIP REPLACEMENT: Please check with your surgeon before performing this particular exercise – You may need to limit your motion based on your surgeon's guidelines

REPS PER SET	HOLD STRETCH	# OF SETS
5-10	5-30 SECONDS	3

HAMSTRING STRETCH (ADDITIONAL OPTIONS)

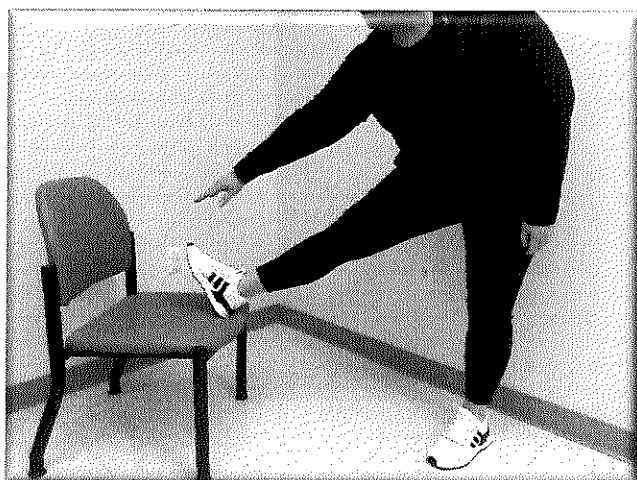


Here are two other methods of stretching the hamstring muscles while lying on your back or standing. You can use any position that is most comfortable for you. **This exercise should be performed on both legs.**



1. While lying on your back, place a towel or cord around the bottom of your foot
2. While keeping your knee straight, slowly pull your leg in an upward direction using the towel to pull higher (You will feel a stretch along the muscles in the back of your thigh)
3. Try to hold for **30 seconds**
4. Slowly return to the starting position

OR



1. While standing, place your foot on a stool or chair.
2. While keeping your knee straight, slowly bend forward to touch your toe (You will feel a stretch along the muscles in the back of your thigh)
3. Try to hold for **30 seconds**
4. Slowly return to the starting position

REPS PER SET	HOLD STRETCH	# OF SETS
5-10	5-30 SECONDS	3

EXERCISE MODIFICATIONS

HIP REPLACEMENT: Please check with your surgeon before performing this particular exercise – You may need to limit your motion based on your surgeon's guidelines

KNEE REPLACEMENT: You should bend the knee to a comfortable position that does not place additional stress on your knee replacement(s)

HIP ADDUCTOR STRETCH



When working your outside hip muscles it is important to not forget about the inner hip muscles. The hip adductors are a group of muscles on the inner aspect of your thigh. Stretching the different groups of muscles around the hip will help ensure balanced muscles. This stretch can be performed in two different ways, lying on your back or sitting on the floor. Be sure to check with your surgeon before attempting the **ADVANCED STRETCH**. **This exercise should be performed on both legs.**



SIMPLE STRETCH

1. We recommend lying on your back
2. Remember to keep your toes pointed toward the ceiling and your knee straight
3. Slowly move your leg out to the side until a comfortable stretch is felt in your groin
4. Try to hold for **30 seconds** before returning to the starting position

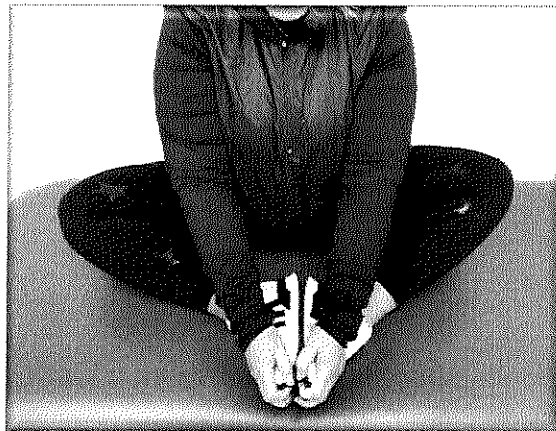
REPS PER SET	HOLD STRETCH	# OF SETS
5-10	5-30 SECONDS	3

EXERCISE MODIFICATIONS

HIP REPLACEMENT: Please check with your surgeon before performing this particular exercise – You may need to limit your motion based on your surgeon's guidelines

KNEE REPLACEMENT: You should bend the knee to a comfortable position that does not place additional stress on your knee replacement(s)

ADVANCED STRETCH



1. We recommend sitting on the floor or a firm surface
2. Next try to put soles of your feet together out in front of you the best you can (Remember to sit with your back straight and place your hands on your knees)
3. Slowly press your knees down towards the floor until a comfortable stretch is felt in your groin
4. Try to hold for **30 seconds** before returning to the starting position



Remember that trochanteric pain is more often the result of weak or overworked muscles, therefore strengthening exercises are important to help address the pain. It is important to exercise the leg muscles in different ways to improve overall strength and function. Slight muscle discomfort can be expected. These exercises should **NOT** cause pain. If you do experience pain, back off and modify your technique. If pain is still present, we recommend avoiding the particularly painful exercise. Exercise bands or ankle weights can be added to most of these exercises to increase the degree of difficulty. We begin by presenting simple exercises and then progress to more **ADVANCED EXERCISES**.

GENERAL TIPS FOR STRENGTHENING EXERCISES

Warm-up: Complete the prior stretching exercises first

Perform slow steady motions until you feel a **TOLERABLE STRETCH** and adjust tension to your comfort

Hold the position for up to 5 seconds before slowly returning to the starting position

Take a deep breath and relax for 1-2 seconds

Repeat for 3 sets of 5-10 repetitions as tolerated

Cool-Down: Apply ice to the trochanter region of the hip for 5-10 minutes after your exercise routine

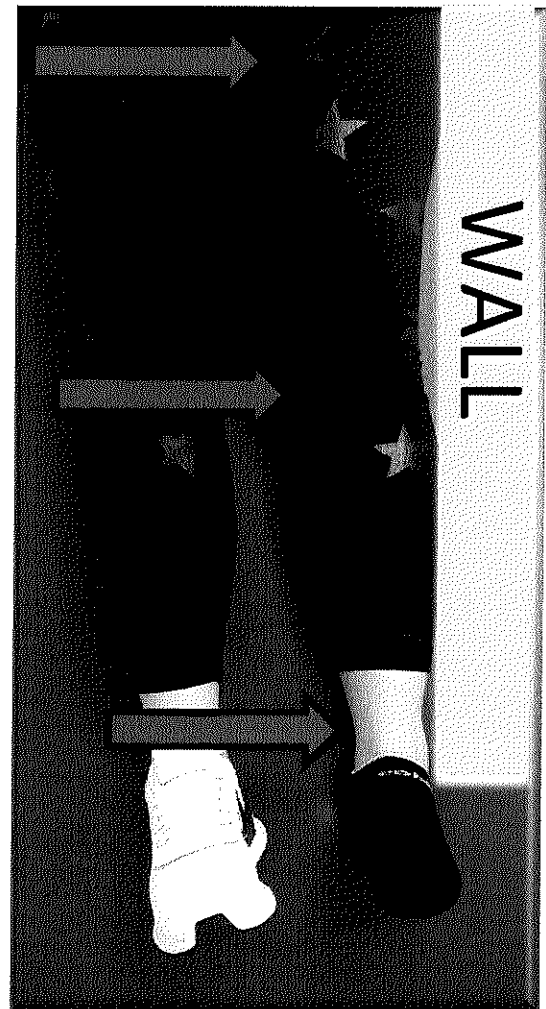
ISOMETRIC HIP EXERCISES



Isometric exercises are important when starting an exercise program for trochanteric pain. During these exercises, the patient pushes against an immovable object to get the appropriate muscles to contract. For this exercise, we recommend lying on the ground next to a wall or other fixed object. The goal will be to push as hard as you can to make the hip muscles into contract without moving your leg. **This exercise can also be performed standing next to a wall during an ADVANCED EXERCISE**

1. Begin by having your leg rest against the wall
2. Next try to push your entire leg outward into the wall
(You will feel your outer hip muscles contract but the leg SHOULD NOT MOVE)
3. Try to hold for **5-10 seconds** before relaxing

This exercise should be performed on both legs

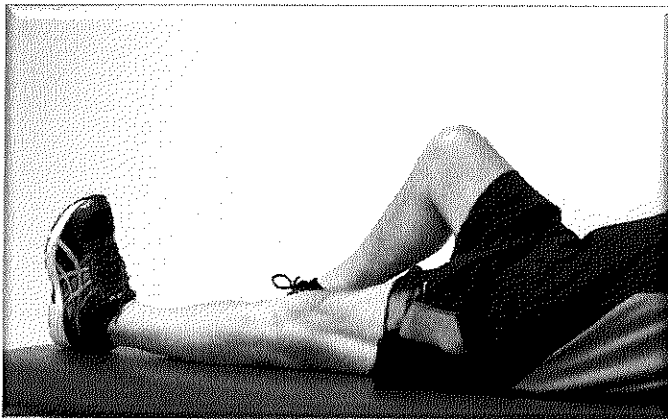


REPS PER SET	HOLD STRETCH	# OF SETS
10	3-5 SECONDS	3

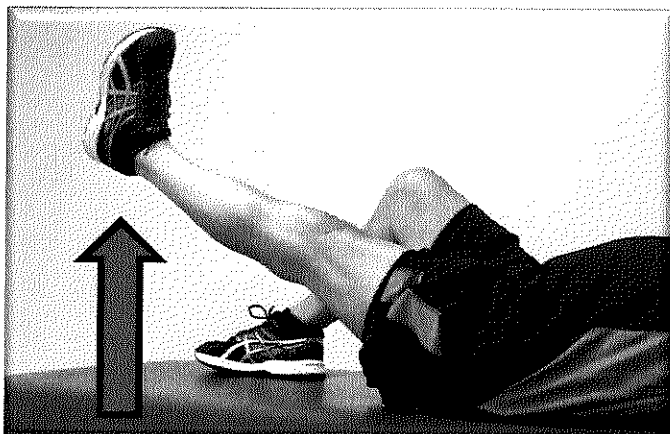
STRAIGHT LEG RAISE



This exercise works the hip and buttock muscles that attach around the trochanter. To perform this exercise, we recommend lying on your back on a soft surface or mat. To take pressure off your back, your opposite leg should be comfortably resting in a bent position with the foot on the ground. Remember to slowly control the leg against gravity and do not let the leg drop back to the ground. **This exercise should be performed on both legs.**



1. Begin by tightening your thigh muscles with your toes pointed toward the ceiling
2. Slowly lift your entire leg off the ground while keeping your knee straight
3. Try to bring your leg up until your thighs are at the same level



4. Try to hold your leg up for **5 seconds** and then **SLOWLY** return your leg to the starting position

REPS PER SET	HOLD STRETCH	# OF SETS
10	3-5 SECONDS	3

EXERCISE MODIFICATIONS

HIP REPLACEMENT: Please check with your surgeon before performing this particular exercise – You may need to limit your motion based on your surgeon's guidelines

KNEE REPLACEMENT: You should bend the knee to a comfortable position that does not place additional stress on your knee replacement(s)



This exercise works key to strengthen the muscles that attach to the trochanter. When performing this exercise, we recommend using a chair, counter, or railing for balance. Remember to keep you back straight for this exercise. **Ankle weights or exercise bands can be used to make these exercises more difficult.** Remember these exercises are meant to be performed slowly to help build strength in the muscles around the hip and trochanter. Exercise bands or ankle weights can be added to increase the degree of difficulty. **This exercise should be performed on both legs.**



SIMPLE (STANDING)

1. Begin by slightly rotating your toes toward the side
2. While keeping your knee straight, slowly move your leg out toward the side (You will feel the muscles on the side of your hip tighten)
3. Try to hold the end position for **5 seconds** before slowly returning your leg to the starting position

REPS PER SET	HOLD STRETCH	# OF SETS
10	3-5 SECONDS	3

EXERCISE MODIFICATIONS

HIP REPLACEMENT: Please check with your surgeon before performing this particular exercise – You may need to limit your motion based on your surgeon's guidelines

KNEE REPLACEMENT: You should bend the knee to a comfortable position that does not place additional stress on your knee replacement(s)

ADVANCED (SIDE-LYING)

1. Start by rotating your toes so they are pointing towards the ceiling
2. While keeping your knee straight, slowly raise your leg toward the ceiling until a comfortable stretch is felt in your groin. (You will feel your outer hip muscles tighten)

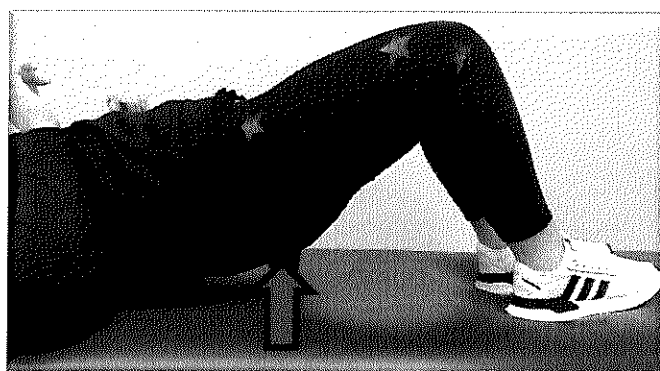
Try to hold the end position for **5 seconds** before slowly returning your leg to the starting position





Bridge exercises work all the muscles that attach to the trochanteric region of the hip. The goal is to slowly contract all the muscles around the hip to slowly raise and lower your buttocks from the ground. To perform this exercise, we recommend lying on your back on a firm comfortable surface. **ADVANCED BRIDGES can be attempted while squeezing a small ball or pillow between your knees during this exercise.**

1. Both knees should be comfortably bent with your feet on the floor and about shoulder-width apart
2. With your hands at your sides, slowly lift your bottom off the floor by tightening your leg and stomach muscles
3. Keep lifting as high as you can until your stomach is in line with your knees
4. Try to hold for **5 seconds** before slowly returning to the starting position

REPS
PER SET

10

HOLD
STRETCH

3-5

SECONDS

OF
SETS

3

EXERCISE MODIFICATIONS

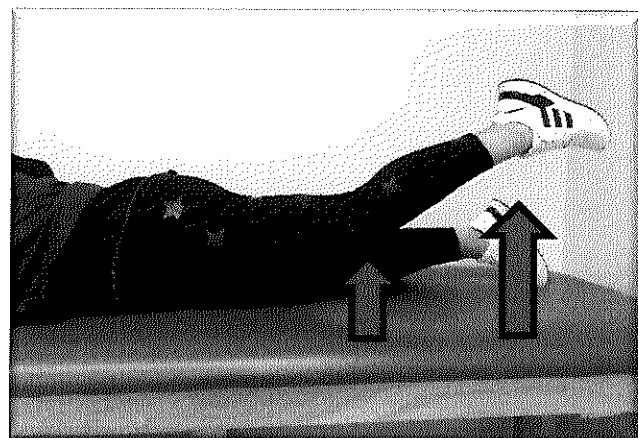
HIP REPLACEMENT: Please check with your surgeon before performing this particular exercise – You may need to limit your motion based on your surgeon's guidelines

KNEE REPLACEMENT: You should bend the knee to a comfortable position that does not place additional stress on your knee replacement(s)

PRONE KNEE EXTENSION



This **ADVANCED EXERCISE** works the hip, buttock, and hamstring muscles. We usually recommend this exercise **after straight leg raises and abduction/adduction exercises become easier**. To perform this exercise, we recommend lying on your stomach on a comfortable surface. Remember ankle weights can be added to increase the degree of difficulty of this exercise. **This exercise should be performed on both legs.**



1. Point your toes away as if you were pushing on a gas pedal
2. Slowly lift your **entire leg** off the table while trying to **keep your knee straight** (Try to keep you hip in contact with the ground)
3. Hold for **5 seconds** before slowly returning your leg to the starting position

REPS PER SET	HOLD STRETCH	# OF SETS
10	3-5 SECONDS	3

EXERCISE MODIFICATIONS

HIP REPLACEMENT: Please check with your surgeon before performing this particular exercise – You may need to limit your motion based on your surgeon's guidelines

KNEE REPLACEMENT: You should bend the knee to a comfortable position that does not place additional stress on your knee replacement(s)

WALL SQUATS



Wall squats are a great exercise to build strength and endurance in all the hip muscles. Keeping your low back and shoulders against the wall helps to maintain good alignment during this exercise. Be sure to have a chair, counter, or railing for balance when attempting this exercise. **An exercise ball can be added for an ADVANCED EXERCISE**



SIMPLE



ADVANCED

1. Start with your feet about shoulder-width apart and approximately **18 inches** from the wall.
2. Slowly bend your knees and slide your back down the wall until your knees are at a comfortable bend
3. Be sure to keep your back and shoulders against the wall
4. Try to hold the end position for **5 seconds** before slowly returning to the starting position (slide back up the wall) - **During the last repetition, you can time yourself to see how long you can hold the "seated" position before having to return to the starting position**

REPS PER SET	HOLD STRETCH	# OF SETS
10	3-5 SECONDS	3

EXERCISE MODIFICATIONS

HIP REPLACEMENT: Please check with your surgeon before performing this particular exercise – You may need to limit your motion based on your surgeon's guidelines

KNEE REPLACEMENT: You should bend the knee to a comfortable position that does not place additional stress on your knee replacement(s)

STEP-UPS



This **ADVANCED EXERCISE** requires you to be very comfortable with the previous exercises. Be sure to have a chair, countertop, or railing close by for balance if needed. It is important for you to focus on slowly stepping up and down to exercise your hip muscles properly for this exercise. In the beginning, you can start with a **4-inch step** and then progress to a **6-inch**, then **8-inch**, then **10-inch**, and finally a **12-inch** step.

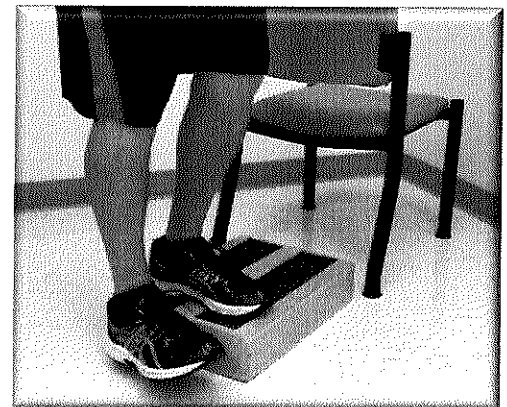


1. Begin by shifting your weight to the leg on the step as if you were to climb the stairs. The goal is to bring your opposite leg up to match your other leg but **DO NOT** place weight on the opposite leg.
2. Try to Hold for **5 Seconds**
3. Now slowly lower your opposite leg back to the floor by controlling the muscles of your step leg (You will feel the hip and thigh muscles contract during this exercise)



****This exercise can be attempted in different directions. Try stepping forward, backward, and to the side to work different muscles***

REPS PER SET	HOLD STRETCH	# OF SETS
10	3-5 SECONDS	3



ADVANCED

Cool Down

Remember to take some time to cool down and drink plenty of water. Ice and elevation are good habits for any sore joints. This guide can be completed in its entirety or you can pick and choose exercises that are relative to you. Remember to modify the exercises to work around your respective joint replacement(s).

This guide serves as a self-directed set of exercises. If there is ever any worsening pain, new onset numbness/tingling, or no improvements in your symptoms within 3-4 weeks, we encourage you to seek the guidance of your physician.

