Phase 2 Exercises to Improve Your Recovery After Surgery

When can I go back to work?

When you can go back to work depends on how well and how quickly you heal after surgery and the kind of work you do. Your surgeon will tell you when you can go back to work.

Knees: I have a click in my operated knee. Should I be worried about it?

Do not worry about the click unless it hurts. Clicking (and crunching) is quite common and usually lessens or goes away over time.

Knees: The outside of my knee is numb. Is that normal?

It is normal to have numbness at first. It should lessen or go away over time.

Start these exercises after you have seen your surgeon or Physiotherapist.

Exercise is important after surgery to make your new knee/hip stronger and more flexible and to help prevent blood clots. The exercises may feel uncomfortable at first, but exercising will help you to get back to your normal everyday activities sooner.

Your healthcare team may suggest you add some or all the exercises below to the ones you were doing before surgery. Remember to slowly increase the number of times you exercise each day, how often you repeat each exercise, and the amount of pressure you can put on your new knee/hip.

Your team will tell you how often to do the exercises, how many times to repeat each one, and how much force or pressure you can put on your new knee/hip.

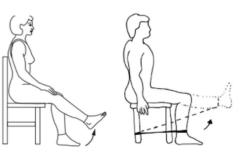
Do the exercises on **both legs** to make them equally strong and flexible. Do them slowly and with control. Make sure **not to force your new knee/hip** into a position that causes you pain and discomfort.

Adapted from Bone & Joint Health Strategic Clinical Network, Alberta Bone and Joint Health Institute. (2020). *When You're Having a Knee Replacement*. Alberta Bone and Joint Health Institute.

Bone & Joint Health Strategic Clinical Network, Alberta Bone and Joint Health Institute. (2020). When You're Having a Hip Replacement. Alberta Bone and Joint Health Institute.

Exercise #1: Knee Straightening with a Band – Makes the front of your thigh muscles stronger

- 1. Place elastic band around a secure object (i.e. a table leg or chair).
- 2. Sit in a chair facing away from the anchor and loop the other end of the elastic band around your ankle.
- 3. Slowly straighten the leg as you stretch the elastic band.



- 4. Pause, then slowly lower your foot back to the starting position.
- 5. Repeat at least 5 times.

Exercise #2: Knee Bending with a Band – Makes the back of your thigh muscles stronger

- 1. Place elastic band around a secure object (i.e. a table leg).
- 2. Sit in a chair facing the anchor and loop the other end of the elastic band around your ankle.
- 3. Slowly bend your knee as you stretch the elastic band.
- 4. Pause, then slowly return to the starting position.
- 5. Repeat at least 5 times.



Exercise #3: Sit to Stand - Builds strength in the lower body

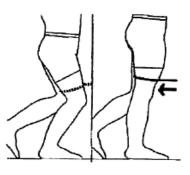
Use a chair with armrests if you need to use your arms at first while you build strength in your lower body. Use a pillow to raise the seat if it is too low.

- 1. Sit on the front edge of a steady chair with your knees shoulder width apart.
- 2. Make sure your knees are lined up with your feet.
- 3. Put equal pressure on your legs/feet while you slowly raise yourself from the chair. Slowly return to the starting position.
- 4. Repeat at least 5 times.



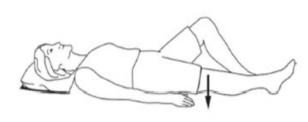
Exercise #4: Straightening Knee with Band - Builds strength in the front of your thigh

- Place one end of an elastic loop around a secure object and the other end around one thigh (above the knee), keeping the knee bent slightly.
- 2. Hold onto a table or other steady object as needed.
- 3. Slowly straighten the leg to stretch the elastic loop, keeping your heel on the floor.
- 4. Pause, then return slowly to the starting position.
- 5. Repeat at least 5 times.



Exercise #5: Thigh Squeeze – Works on maintaining knee flexion and builds strength in the front of your thigh

- 1. Lay on back with kneecap and toes facing the ceiling.
- 2. Pull toes up towards your head.
- 3. Tighten the muscles on the front of your thigh and gently push back of knee into the bed.
- 4. Relax; repeat at least 5 times.



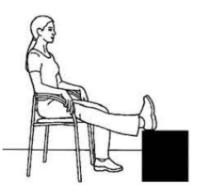
Exercise #6: Sitting Knee Stretch – Works on maintaining knee flexion

- 1. Sit with one leg bent and loop a towel around the foot/ankle.
- 2. Using the towel, gently pull the heel towards your buttocks.
- 3. Hold for a count of 15s.
- 4. Return slowly to the starting position.
- 5. Repeat at least 5 times.



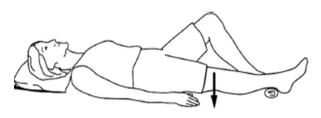
Exercise #7: Passive Knee Extension Stretch – Works on maintaining knee extension

- 1. Sit in a chair and place foot on a small stool in front of you.
- 2. Let the knee relax/extend down.
- 3. Hold for a count of 30s.
- 4. Relax; repeat at least 3-5 more times.



Exercise #8: Passive Knee Extension – Works on maintaining knee extension

- 1. Lay on your back with kneecap and toes facing the ceiling.
- 2. Place a small roll under the ankle and gently push the knee straight.
- 3. Hold for a count of 30s.
- 4. Relax; repeat at least 3-5 more times.



Exercise #9: Straight Leg Raise - Makes front of your thigh and hip stronger

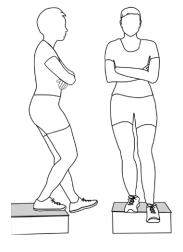
- 1. Bend one knee, while keeping the other leg straight.
- 2. Tighten your thigh muscles of the straight leg, slowly unweight/lift slightly.
- 3. Hold for a count of 3-5s.
- 4. Slowly lower your leg back down to starting position.
- 5. Repeat at least 5 times.



(You may also perform this exercise with the leg/foot turned out slightly).

Exercise #10: Step Downs – Practicing the movement for stairs; increase motion and strength

- 1. Stand on the edge of a step; hold railing/wall for support.
- 2. Slowly step down by bending the knee, ensuring hips stay level (your foot doesn't have to touch the ground).
- 3. Slowly push yourself back to the starting position by straightening the knee.
- 4. Repeat at least 5 times.



Exercise #11a: Hamstring Isometric – Helps activate muscles back thigh muscles

- Bend the involved knee so the foot rests flat, keeping knee lined up with hip and facing the ceiling.
- 2. Gently "pull" your foot towards your buttock, without moving.
- 3. Hold this gentle pull for 5s, without moving.
- 4. Repeat 5 times.



Exercise #11b: Hamstring Isometric – Helps activate muscles back thigh muscles

- 1. Sit in a chair with the foot of the involved leg planted firmly on the floor, keeping knee lined up with hip.
- 2. Gently "pull" your foot back, without moving.
- 3. Option: hook other leg behind the involved leg to pull your leg gently into
- 4. Hold this gentle pull for 5s.
- 5. Repeat 5 times.

Exercise #12: Quadriceps Isometric - Helps activate front thigh muscles

- 1. Sit in a chair with the foot of the involved leg planted firmly on the floor, keeping knee lined up with hip.
- 2. Hook other leg in front of the involved leg.
- 3. Gently "kick" involved leg forward, without moving.
- 4. Hold this gentle kick for 5s.
- 5. Repeat 5 times.

Exercise #13: Step Up, Step Down - Makes your legs stronger

- 1. Place a solid object on the floor in front of you (or use a small step/stair)
- 2. Hold onto a table or counter for balance, and step forward and up onto the object.
- 3. Slowly step back down.
- 4. Repeat at least 5 times.



Exercise #14: Split Squat Lunge - Helps maintain flexibility of thigh

- 1. Hold onto a table or counter for balance and move one leg forward. Bend the forward leg and lean your upper body over the bent knee.
- 2. Hold for a count of 3 to 5.
- 3. Slowly relax and return to standing position.
- 4. Repeat at least 5 times.



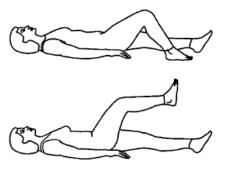
Exercise #15: Calf Stretch - Helps maintain flexibility of the lower leg

- 1. Stand facing a wall and place your hands on the wall.
- 2. Move on leg forward and bend it while keeping the other leg straight.
- 3. Slowly lean your hips toward the wall, until you feel a stretch in the back of the straight leg.
- 4. Hold for a count of 3 to 5.
- 5. Slowly relax the stretch.
- 6. Repeat at least 5 times.



Exercise #16: Dead-bug Progression – Makes your stomach and upper leg muscles stronger

- 1. Lie on your back and bend one leg.
- 2. Tighten your stomach muscles and lift your bent leg, being careful not to bend it more than 90°.
- 3. Keeping your stomach muscles tight, slowly lower the leg back to the starting position.
- 4. Repeat at least 5 times per leg.



Exercise #17: "Clam Shell" - Makes hips/buttocks stronger

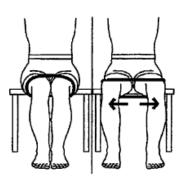
- 1. Lie on your side with hips and knees bent and a pillow between your knees.
- 2. Keep your feet together and hips stacked (avoid twisting/moving hips).
- 3. Lift the top knee off the pillow, like a clam shell opening.
- 4. Hold for a count of 3-5s then slowly lower the knee to the pillow.
- 5. Repeat at least 5 times.





Exercise #18: Seated Hip Abduction – Makes your outer thigh muscles stronger

- 1. Sit in a steady chair, put the elastic loop around both thighs, and keep both feet flat on the floor.
- 2. Pull your legs apart, sliding your feet along the floor to stretch the elastic loop.
- 3. Hold for a count of 3-5s and slowly return legs to starting position.
- 4. Repeat at least 5 times.



Exercise #19: Side Lying Leg Lifts - Increases strength of hips/buttocks

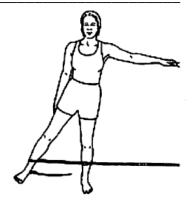
- 1. Lie on your side, with the bottom leg bent to stop you from rolling onto your back.
- 2. Keeping the top leg straight, lift it toward the ceiling, making sure not to roll forward or backward. Keep your knee facing forward.
- 3. Slowly lower the leg.
- 4. Repeat at least 5 times.





Exercise #20: Standing Hip Abduction – Makes your outer hip muscles stronger

- 1. Place one end of an elastic loop around a table leg, and the other end around one ankle.
- 2. Hold onto a table for balance and stand straight.
- 3. Keep your leg straight. Squeeze your glutes as you pull your ankle sideways away from the body to stretch the elastic.
- 4. Hold for a count of 3 to 5s, then slowly return to the starting position.
- 5. Repeat at least 5 times.



Exercise #21: Standing Hip Extension – Makes your buttocks and the back of your thigh stronger

- 1. Place one end of an elastic loop around a table leg, and the other end around one ankle.
- 2. Hold onto a table for balance, and stand straight, facing the table.
- 3. Keeping your leg straight, squeeze your glute and pull your ankle back away from the table to stretch the elastic.
- 4. Hold for a count of 3 to 5s, then slowly return to the starting position.
- 5. Repeat at least 5 times.



Exercise #22: Standing Hip Flexion – Makes the front of your hip and front of your thigh muscles stronger

- 1. Place one end of an elastic loop around a table leg, and the other end around one ankle.
- 2. Stand with your back facing the table, holding onto a chair/wall for support.
- 3. Keeping your leg straight, squeeze your thigh and push your ankle forward, away from the table to stretch the elastic loop.
- 4. Hold for a count of 3 to 5s, then slowly return to the starting position.
- 5. Repeat at least 5 times.



BONUS: Balance Progressions – Strengthens feet, legs and hips while addressing balance issues

- 1. Stand with your back in a corner and a chair in front of you for balance.
- 2. Start with feet hip width apart with eyes open, work up to holding for 30s without using support.
 - a. Repeat with eyes closed.
- 3. Progress to a tandem stance (heel toe) with eyes open, work up to holding for 30s without needing support; repeat on the other side.
 - a. Repeat with eyes closed, working up to 30s in each position.
- 4. Progress to a single leg stance, ensure hips stay level with eyes open, work up to holding for 30s without needing support; repeat on the other side.
 - a. Repeat with eyes closed, working up to 30s in each position.

(Start with 10s and gradually add more time in 5 or 10s increments until you reach 30s before moving on.)