

SECTION 4

**Exercises
Following
Total Knee Joint
Replacement**



London Health Sciences Centre

EXERCISES FOLLOWING TOTAL KNEE JOINT REPLACEMENT

The following exercises are designed to improve your range of motion and muscle strength in your knee following your total knee joint replacement. These exercises will be reviewed with you by your physiotherapist (P.T.), and will be started on Day 1 of your hospital stay. You need to continue doing these exercises when you go home.

All exercises should be carried out just as they are written. Any questions should be referred to your physiotherapist.

Exercises should be done

three (3) times daily.

Repeat each exercise ten (10) times.

Continue to exercise at home.



Guidelines For Your Physiotherapy

Icing

Icing should be done prior to exercising and at any time for pain relief and to decrease swelling. Ice can be applied directly over the knee, front and back, using a bag of frozen vegetables or crushed ice, for 15-20 minutes. Keep your dressings dry by placing saran wrap/plastic over your knee before applying the ice.

Ambulation

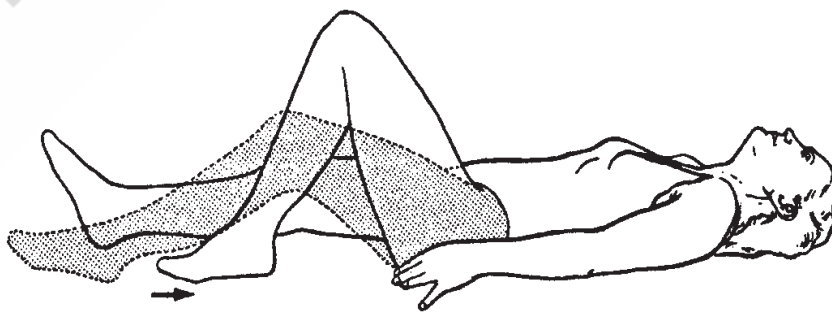
Continue to use your walking aid until you return to the clinic, or until you are progressed by your Physiotherapist.

Scar Care

After your staples are removed (two weeks after surgery) and your incision is healed, you should massage the scar. The massaging helps keep the tissue from scarring down. Massage along the edges of the scar from top to bottom and also across the incision. Do this for 5-10 minutes twice a day.

Range of Motion

You should keep your knee moving to prevent it from getting stiff, when you are not exercising. This should be done several times every hour, in sitting and in lying. Bend your knee as far as it will go, then allow it to straighten out as far as it will go. Repeat this 10 times.



Knee Exercises After Your Surgery

Exercises in BED

Exercise #1:

*This exercise improves the bend of your knee.

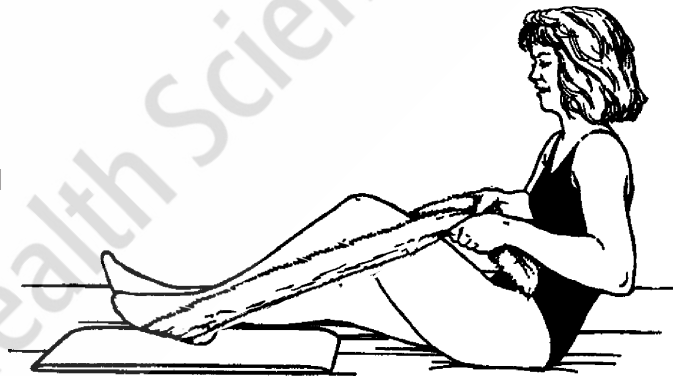
Sit on your bed, with your operated leg straight out in front of you, loop the strap around your foot. Slowly bend your operated knee, using the strap to assist, until you feel a stretch over the top of your knee.

- Hold for 5 seconds
- Relax
- Repeat exercise 10 times.

OR

- Place a towel or a sling around your thigh. Bend your knee, keeping your heel on the bed or sliding board, using a towel or sling to help.

Pull until you feel a stretch over the top of your knee. Hold for 5 seconds, Relax and repeat 10 times.

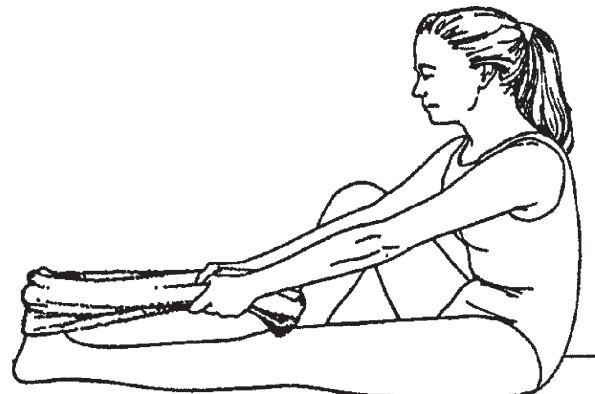


Exercise #2:

*This exercise stretches your calf muscle.

Sit on your bed, with your operated leg straight out in front of you, loop the strap around the ball of your foot. Hold on to the strap with both hands. Keep your knee straight and gently pull on the strap, bringing your toes towards you, until you feel a stretch in your calf.

- Hold for 5 seconds
- Relax
- Repeat exercise 10 times.

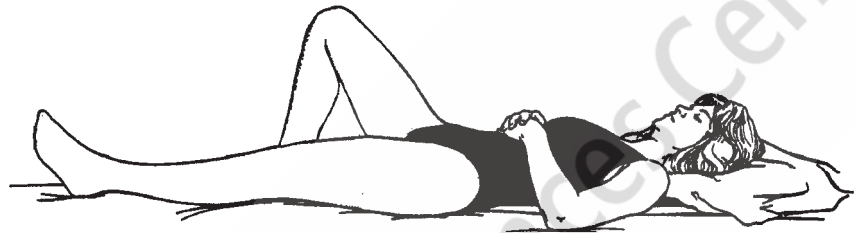


Exercise #3

*This exercise strengthens your thigh muscle.

Sit on your bed, with your operated leg straight out in front of you, pull your toes up, tighten your thigh muscles, and press the back of your knee down on the bed.

- Hold for 5 seconds
- Relax
- Repeat exercise 10 times.

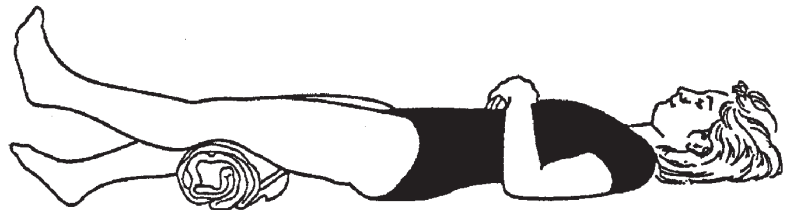


Exercise #4

*This exercise strengthens your thigh muscle.

Lie on your back, place a rolled towel (6 inches in diameter or use a 48 oz. juice can) under your operated knee. Pull your toes up and lift your heel off the bed making sure that your thigh remains supported on the roll.

- Hold your heel up for 5 seconds
- Relax
- Repeat exercise 10 times.



You may use the strap to assist you if needed.

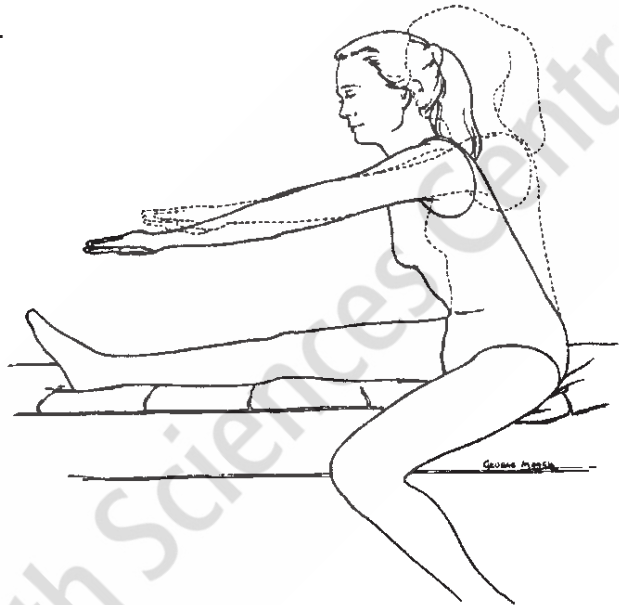
Exercises in SITTING

Exercise #5:

*This exercise stretches your hamstring muscle.

Sit on the edge of the bed, with your operated leg supported on the bed. Your other foot is touching the floor for support. Gently lean forward over your operated leg, until you feel a stretch in the back of your thigh. Your operated leg should remain straight while you stretch.

- Hold for 5 seconds
- Relax
- Repeat exercise 10 times.

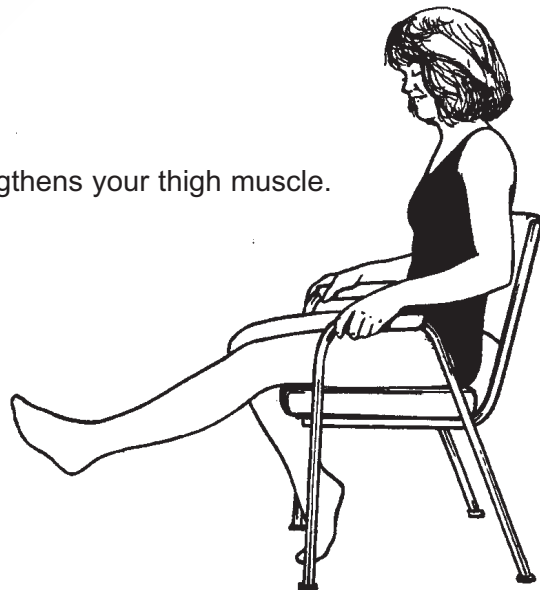


Exercise #6:

*This exercise stretches your hamstrings and strengthens your thigh muscle.

Sit in a chair with your feet on the floor. Lift your foot and straighten your knee, keeping your back straight.

- Hold for 5 seconds
- Relax your thigh muscles slowly to a count of 5
- Repeat exercise 10 times



Stage II Exercise Program

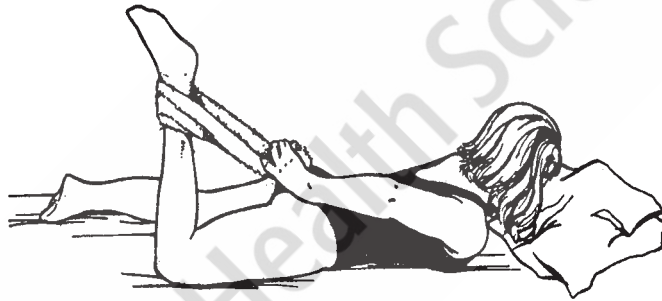
The following exercises are designed to improve your mobility and your muscle strength following your total knee joint replacement.

Exercises should be done 3 times daily.
Repeat each exercise 10 times.

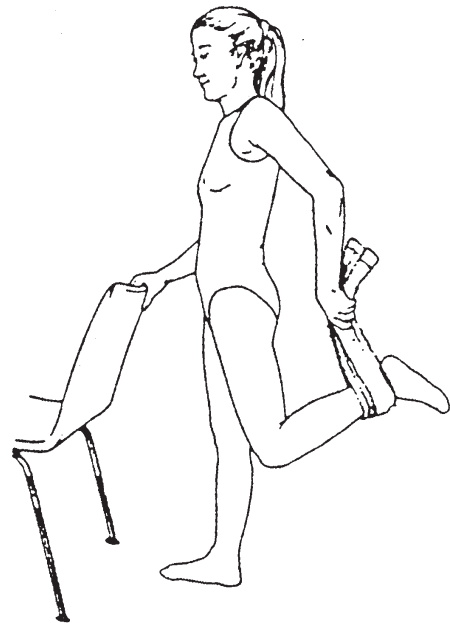
Exercise #1: Quadriceps Stretch

*This exercise stretches the group of muscles in front of your thigh. You may use a towel in around your ankle to assist with the knee bend.

- Lying on your stomach, bend your knee as far as it will go. Using a towel or sling around your ankle pull your heel towards your buttock. Hold for 5 seconds.



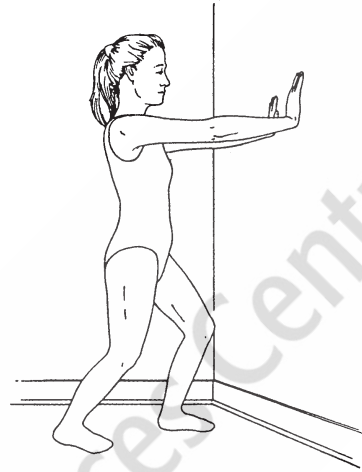
- Stand. Hold on to a table or chair for support. Use a towel around the ankle of the leg being stretched and bend your knee until you feel a stretch in the front of your thigh. Hold for 5 seconds.



Soleus Stretch

Exercise #2

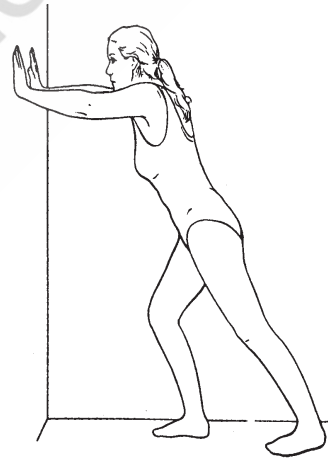
- Face the wall and stand a few feet from it. Place your leg being stretched behind the other leg. Place your hands on the wall. Keep your back heel on the ground and bend this knee slightly. Now lean forward. Hold for 5 seconds.



Achilles Stretch

Exercise #3

- This exercise stretches your calf muscle and heel cord. Face the wall and stand a few feet from it. Place your leg being stretched behind the other leg. Place your hands on the wall. Keep the back leg straight and heel on the ground. Lean forward. Keep your back straight. You should feel a stretch in the back of your calf muscles. Hold for 5 seconds.



Hamstring Strengthening

Exercise #4

- In standing, back straight. Bend your knee and lift your heel up for 5 seconds. Lower your heel down for a count of 5 seconds. As you get stronger, you may use a weight around your ankle to make this exercise harder. Start with one pound and increase this gradually.



Straight Leg Raises

Exercises #5

- Lying on your back with your non-operated leg bent and the operated leg straight. Lift your operated leg about 6 inches off the bed. Hold for 5 seconds. Return your leg to the bed slowly to a count of 5 seconds. Relax and repeat 10 times.

As your get better control of your thigh muscles try lifting your leg to only 4 and then eventually 2 inches off the bed.



Exercise #6

- Tie an elastic or nylon stocking around the leg of a chair. Place the other end of the elastic around your ankle. Straighten your knee to pull against the elastic.

Hold for 5 seconds, relax to a count of 5 seconds.



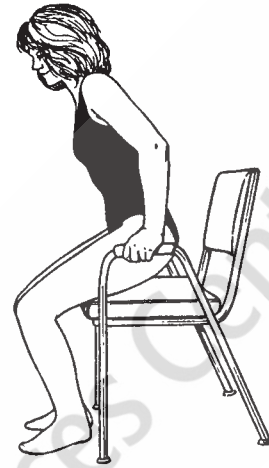
Exercise #7

- Tie an elastic or nylon stocking around the leg of a table that you are facing. Place the other end of the elastic around your ankle. Bend your knee to pull against the elastic. Hold to a count of 5 seconds.



Exercise #8

- Find a chair with arm rests. You should be seated at a comfortable height from the floor. Sit at the edge of the chair and gradually stand up to a count of 5 seconds. You may require assistance of the arm rests to begin. As your thigh muscle strength improves, try to use your arms as little as possible. Then gradually progress to lowering yourself into the chair so that you use control of your thigh muscles. As you improve your strength use the arm rests as little as possible.



Stationary Bike

Exercise #9

- You may use a stationary bike to assist you in getting your range of motion. To start, adjust the seat so that it is a comfortable height so that your thigh muscles feel a stretch, not pain. Do not use resistance right away. Keep adjusting the seat height as necessary. As your knee gets stronger, you may gradually increase the resistance.



Strengthening

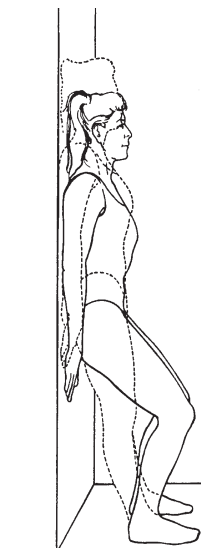
Exercise #10

- It is important that you do not aggravate your condition. You should not experience pain while you are doing these exercises.

Wall Sits:

Start one stride length away from the wall.

1. Your feet should be shoulder width apart
2. Place your back against the wall.
3. Bend your knees to a comfortable level.
4. Be sure your knees are not ahead of your ankles.
5. Hold your position for as long as tolerated.



Short Squats

Exercise #11

Start with your feet should width apart.

1. Do a slow knee bend.
2. Keep your knee cap lined up between your second and third toes.
3. Slowly straighten up.
4. Do not lock your knees back between each repetition.
5. Tighten your buttocks and stomach muscles



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