



Patient & Family Guide  
2017

# Knee Exercises



[www.nshealth.ca](http://www.nshealth.ca)

# Knee Exercises

## Heat and ice

- Use heat (e.g. hot pack, hot water bottle, soak in warm water) for about 10-15 minutes before activity to help loosen up your knee.
- **The incision needs to be well-healed (closed) and not infected before using heat.**
- Use ice (e.g. gel pack, bag of frozen vegetables) on the front and back of your knee for about 10-15 minutes after activity to help control pain.

You should do the following exercises at least 3 times during the day.

## Knee flexion

Lie on your back.

- Slide your heel towards your buttocks.
- Keep your heel and buttocks on the bed.
- Hold for 5 seconds.
- Repeat 10 times.



Or

Sit in a chair.

- Place your foot on the floor. Move your foot as far as you can under the chair.
- Hold for 5 seconds.
- Repeat 10 times.



**Sit in a chair.**

- Move your leg as far as you can under the chair by bending your knee.
- Scoot forward toward the front of the chair as far as you can to bend your knee so that you feel a stretch.
- Hold for 20-30 seconds.
- Repeat 3 times.



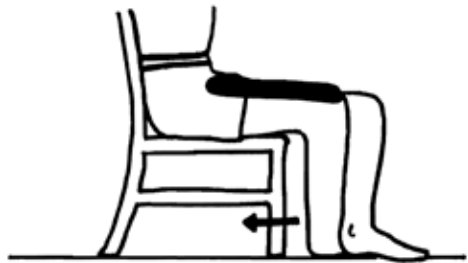
Or

**Sit in a chair with wheels, like a desk chair.**

- Place your foot on the floor.
- Roll the chair forward using your good leg until you feel a stretch in your knee.
- Hold 20-30 seconds.
- Repeat 3 times.

**Sit in a chair.**

- Cross your ankles with your unaffected leg in front and use it to push your other heel further back.
- Hold for 20-30 seconds.
- Repeat 3 times.



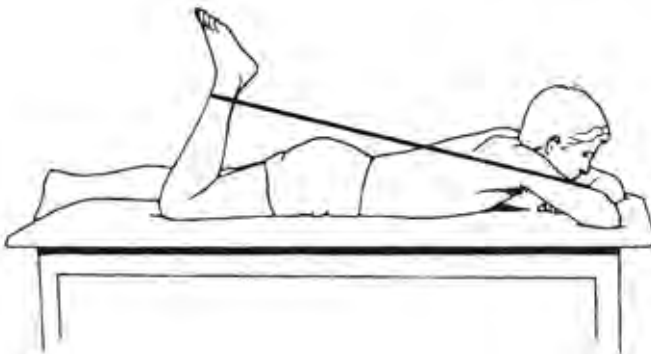
**□ Stand near a stool or stair.**

- Put your foot on a stool.
- Lean your body weight forward (keeping your back straight) to bend your knee so that you feel a stretch.
- Hold for 20-30 seconds.
- Repeat 3 times.



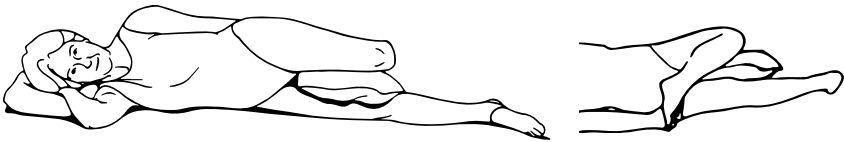
**□ Lie on your stomach.**

- Loop a belt, dog leash or bathrobe tie around your ankle.
- Hold the belt, leash, or tie over your shoulder or behind your back and pull, so that your knee bends. Make sure that your leg does not rotate as you bend your knee.
- Your thigh should stay on the bed.
- Hold for 20-30 seconds.
- Repeat 3 times.



## Lie on your side.

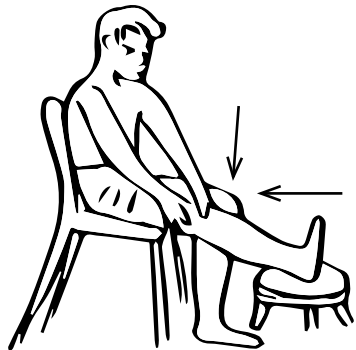
- Place a pillow between your knees.
- Using your hand, or with the help of a belt or towel, hold the foot of your top leg.
- Pull your heel towards your buttocks.
- Keep your thighs straight and in line with one another.
- You should feel the stretch on the front of your thigh.
- Hold for 20-30 seconds.
- Repeat 3 times.



## **Knee extension**

### Sit in a chair.

- Place your heel on a stool, chair, or coffee table so that your knee is as straight as possible.
- Place both hands on your thigh just above your kneecap.
- Using both hands, push your thigh towards the floor, straightening your knee.
- Hold for 20-30 seconds. Repeat 3 times.



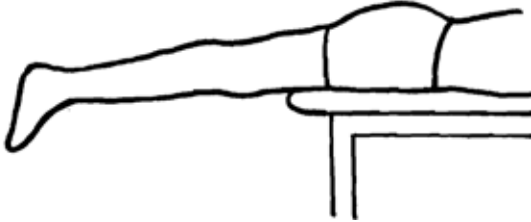
**Progression:**

- Drape a \_\_\_\_\_ lb weight over your thigh just above the kneecap.
- Leave the weight in place for up to 5 minutes.



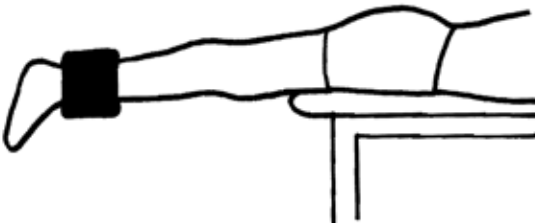
**□ Lie on your stomach in bed with your knee hanging over the edge of the bed.**

- Let your leg hang, feeling a stretch at the back of the knee.
- Hold for 20-30 seconds. Repeat 3 times.



**Progression:**

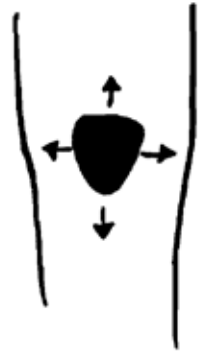
- Drape a \_\_\_\_\_ lb weight over your ankle.
- Leave the weight in place for up to 5 minutes.



## Patella (kneecap) mobilizing

☐ Sit on a sofa or bed with your knee straight.

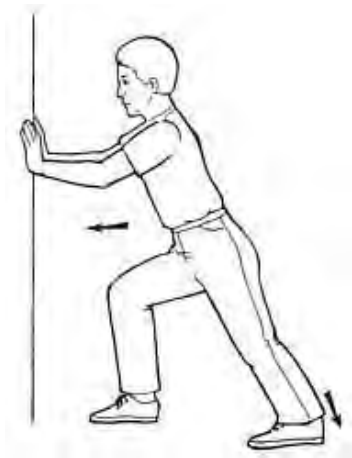
- Place a small rolled towel or pillow under your knee to help the muscles in the front of your thigh relax.
- Place your fingers on either side of your kneecap and move it from side to side.
- Reposition your fingers at the top and bottom of your kneecap and move it up and down.
- Repeat 10 times in each direction.



## Calf stretch

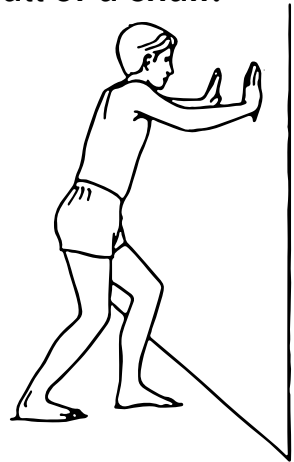
☐ Stand near a wall.

- Place one foot behind the other.
- Keep both feet flat on the floor.
- Slowly shift your weight forward by bending the knee closest to the wall.
- You will feel a stretch in the calf muscles of the leg that is farthest from the wall.
- Hold for 20-30 seconds. Repeat 3 times.



**Stand with your hands on the wall or a chair.**

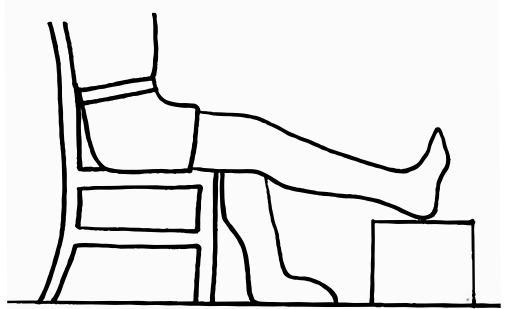
- Place one foot behind the other.
- Keep both feet flat on the floor.
- Bend both knees.
- You should feel a stretch in your calf.
- Hold for 15-20 seconds.
- Repeat \_\_\_\_\_ times.



**Hamstring stretch**

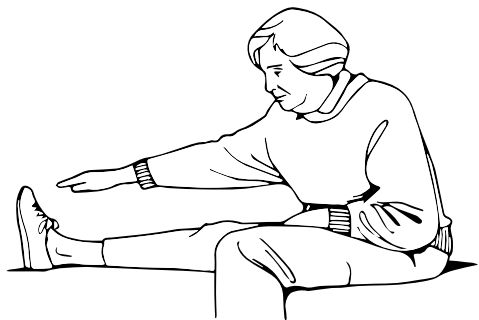
**Sit in a chair.**

- Place your foot on a stool with your knee straight. You should feel a stretch in the back of your thigh.
- Hold for 20-30 seconds.
- Repeat 3 times.



**Sit on a bed with your leg straight.**

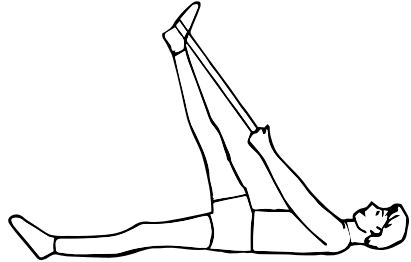
- Bend forward from your hip, feeling a stretch in the back of your thigh.
- Hold for \_\_\_\_\_ seconds.
- Repeat 3 times.





**Lie on your back.**

- Place a belt or strap around your foot.
- Use the strap to lift your leg towards the ceiling, keeping your knee straight.
- You should feel a stretch in the back of your thigh or knee.
- Hold for 20-30 seconds.
- Repeat 3 times.



**Strengthening exercises**

**Lie on your back in bed.**

- Straighten your leg by tightening the muscles on the front of your thigh, so that the back of your knee touches the bed.
- Hold for 5 seconds.
- Repeat 10 times.



**Lie on your back in bed.**

- Wrap a large can in a towel and put it under your knee.
- Lift your foot off the bed by straightening your knee.
- **Do not lift your knee off the can.**
- Hold for 5 seconds.
- Repeat 10 times.



**Progression:**

- Add a \_\_\_\_\_ lb weight around your ankle.

**Lie on your back in bed.**

- Bend your leg up, keeping your foot flat on the bed.
- Lift your other leg about 6 inches while keeping it as straight as possible.
- Hold for 5 seconds.
- Repeat 10 times.

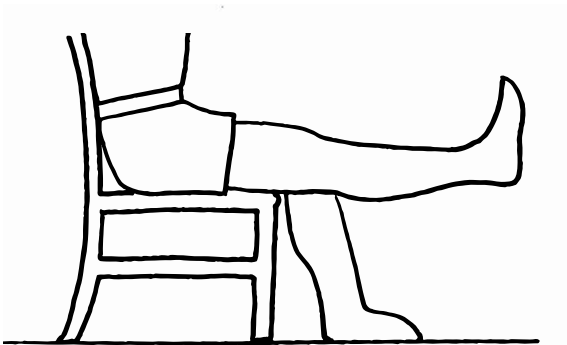


**Progression:**

- Add a \_\_\_\_\_ lb weight around your ankle.

**Sit in a chair.**

- Straighten your leg as far as possible.
- Hold for 5 seconds.
- Repeat 10 times.

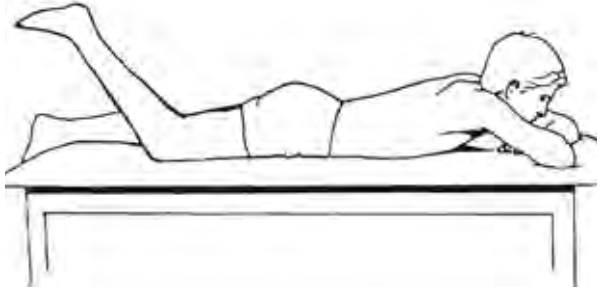


**Progression:**

- Add a \_\_\_\_\_ lb weight around your ankle.

**□ Lie on your stomach.**

- Bend your knee to 45 degrees or until your foot is 6 inches off the surface.
- Hold for 5 seconds and then slowly lower your leg.
- Repeat 10 times.



**Progression:**

- Place a \_\_\_\_\_ lb weight around your ankle.

**□ Lie on your side.**

- Bend your bottom leg for balance.
- Lift your top leg 6-8 inches off the bed, keeping your knee straight and your leg in line with your trunk.
- Hold for 5 seconds and then slowly lower your leg.
- Repeat 10 times.



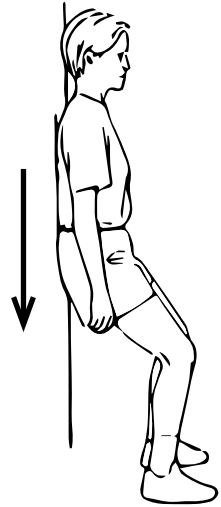
**Progression:**

- Place a \_\_\_\_\_ lb weight around your ankle.

## Functional exercises

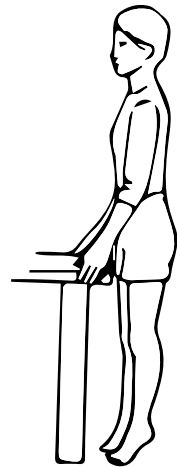
### □ Stand near a wall.

- Put your back flat against the wall and your feet shoulder-width apart.
- Slowly slide down the wall by bending your knees.
- Your feet should be far enough away from the wall so that your knees are over your ankles as you bend.
- **Do not bend your knees enough to cause pain.**
- Hold for 5 seconds.
- Relax and repeat 10 times.



### □ Hold onto kitchen counter or a chair for balance.

- Stand with your feet shoulder-width apart.
- Rise up onto your toes.
- Hold for 5 seconds, then slowly lower yourself.
- Repeat 10 times.



**□ Stand with a step in front of you.**

- Place one foot on the step and slowly bring the other foot onto the step.
- Step down slowly, returning to the starting position.
- Repeat 10 times.



**□ Stand sideways with one leg on a step.**

- Straighten your knee so that the other leg comes off the floor.
- Hold for 5 seconds.
- Slowly lower your leg until your foot rests on the floor.
- Repeat 10 times.

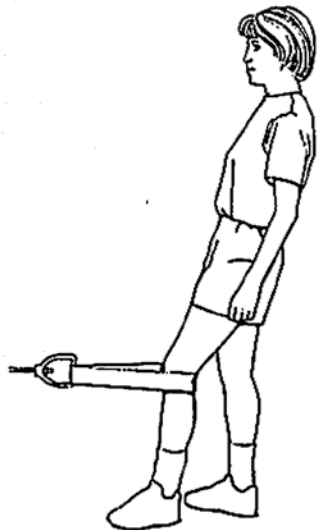


**□ Stand with your feet wider than shoulder-width apart.**

- Turn your feet outwards.
- Move your buttocks backwards as if you are going to sit in a chair.
- Lower your buttocks as far as you can without falling.
- As you bend, move your arms out in front of your body to help you balance.
- When you lower your buttocks, your knees should not go past the middle of the foot and your knees should be pointed towards your second toe.
- Return to standing position.
- Repeat 10 times.

**□ Stand holding onto something for support.**

- Position an exercise band at knee height by placing the knotted end on the opposite side of a latched door.
- Position yourself with your knee slightly bent so that the exercise band has tension on it.
- Straighten your knee against the resistance of the exercise band.
- Hold for 5 seconds.
- Repeat 10 times.



Discomfort during or after exercise is common. Discomfort should lessen in about 1-2 hours after exercise. If your discomfort lasts longer than 2 hours, talk to your physiotherapist about modifying your exercise program.

Physiotherapist: \_\_\_\_\_

Phone number: \_\_\_\_\_

If you have any questions, please ask.  
We are here to help you.

**Looking for more health information?**

Find this pamphlet and all our patient resources here: <http://library.nshealth.ca/PatientGuides>

Contact your local public library for books, videos, magazines, and other resources.

For more information go to <http://library.novascotia.ca>

*Nova Scotia Health Authority promotes a smoke-free, vape-free, and scent-free environment.*

*Please do not use perfumed products. Thank you!*

**Nova Scotia Health Authority**

[www.nshealth.ca](http://www.nshealth.ca)

*Prepared by: Physiotherapy ©*

*Designed by: NSHA Library Services*

The information in this brochure is for informational and educational purposes only.

The information is not intended to be and does not constitute health care or medical advice.

If you have any questions, please ask your health care provider.

WB85-0922 Updated May 2017

The information in this pamphlet is to be updated every 3 years or as needed.