

Pre-Operative Knee Replacement Exercises

You are about to have knee replacement surgery. Patients who prepare for surgery and take part in their care can recover in less time and with less pain. This guide has general information along with tips and goals for exercising before and after surgery.

The goals and exercises in this guide will help you along the path to recovery. You may get different instructions from your surgeon, doctor or physiotherapist. Always follow the directions of your care team.

Before starting any exercise program check with your physiotherapist or doctor. This guide is meant to be used under the direction of your physiotherapist.

Caution:

If you have too much pain in your knee to exercise, or if any of the exercises cause more pain or swelling in your knee, stop. Tell your physiotherapist or doctor.

Before Surgery: General Guidelines

Regular exercise before surgery can help your recovery.

Exercise also helps to:

- Keep the movement in your knee
- Make your muscles strong
- Control your pain
- Build your knowledge of how to exercise after surgery
- Reduce your body weight
- Improve your sleep

Do activities that put less stress on your knee. Try:

- Swimming, water walking, water aerobics
- Upright stationary cycling
- Walking with or without poles
- Strengthening or stretching exercises
(e.g. pages 9 – 15 in this booklet)

Warm up before doing strengthening or stretching exercises.

- Walk for 5 – 10 minutes
- Use an upright stationary bike for 5 – 10 minutes
- Apply moist heat to tight or stiff muscles for 5 – 10 minutes

To keep pain under control:

- Rest your joint for short, frequent times in the day
- Pace yourself
- Use a walking aid such as a cane, walking poles or walker
- Talk to your doctor or pharmacist about pain medicine

Learn to Turn On Your Core Muscles

Core muscles are deep muscles that support your spine and pelvis. They provide stability, control and good posture when you move.

When your knee hurts too much to stand or walk, these muscles become weak and don't work well. This can lead to back pain, stiff back, stiff hips, and poor balance. With practice, they will turn on without you thinking about it.

Learn to **turn on** these muscles before and during each exercise.

1a. Pelvic floor (bladder muscles)

Pull your bladder muscles to your belly button OR imagine you are gently trying to hold your urine.

Hold for 6 seconds, then slowly relax

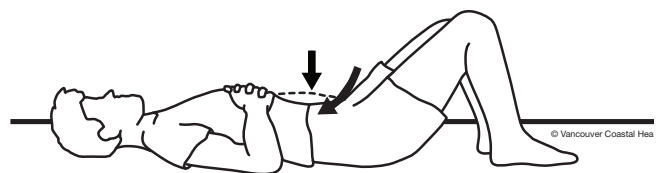
Repeat 6 – 8 times, 3 times a day

1b. Lower abdominal muscles

Pull your belly button into your spine OR imagine slowly zipping up a tight pair of pants.

- Hold for 6 seconds while breathing quietly, then slowly relax as if you unzip your pants. Keep upper chest relaxed

Repeat 6 – 8 times, 3 times a day



Exercises

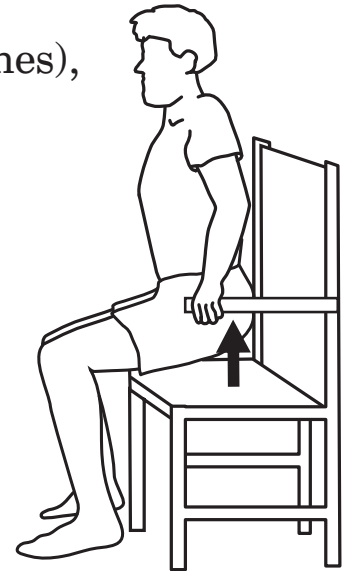
1. Arm chair push-ups

You need strong triceps to use your walker (or crutches), to help you get out of bed, and stand up from chairs. Triceps are the muscles on the back of your arm.

- Sit on chair with armrests
- Place hands on armrests with elbows bent
- Push through hands to straighten elbows and lift body up

Hold ____ seconds.

Repeat ____ times. Do __ times per day.

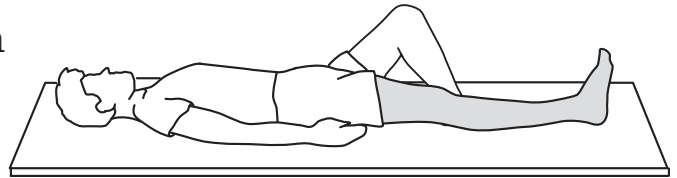


2. Thigh Squeezes (Simple)

- Keep kneecap and toes facing ceiling
- Pull toes towards you
- Tighten muscles in front of thigh and push back of knee into bed

Hold ____ seconds.

Repeat ____ times. Do __ times per day.

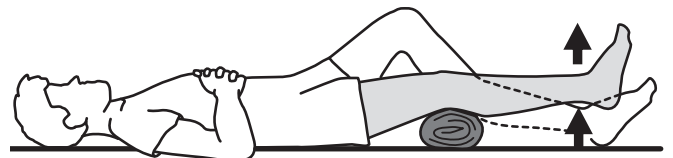


3. Thigh Squeezes (Harder)

- Place large rolled towel under knee
- Press back of knee down into rolled towel
- Straighten leg

Hold ____ seconds.

Repeat ____ times. Do __ times per day.



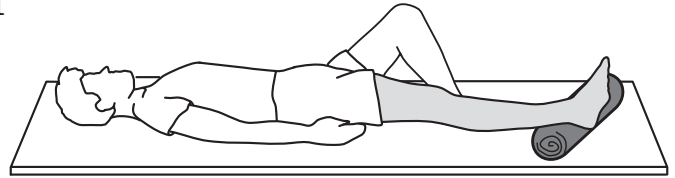
4. Knee Straightening

- Place small rolled towel under heel
- Keep kneecap and toes facing ceiling
- Gently tighten muscles in front of thigh

Hold ____ seconds.

Repeat ____ times.

Do __ times per day.



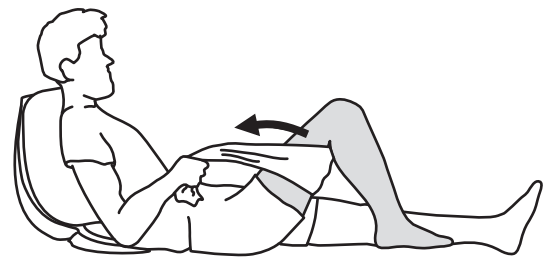
5. Knee Bend (heel slides)

- Bend knee
- Use hand or towel behind thigh to pull heel towards bottom

Hold ____ seconds.

Repeat ____ times.

Do __ times per day.



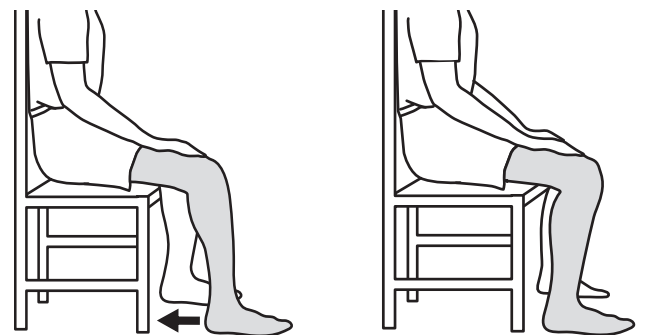
6. Sitting Knee Bend

- Sit with feet on floor
- Slide heel back to bend your knee

Hold ____ seconds.

Repeat ____ times.

Do __ times per day.



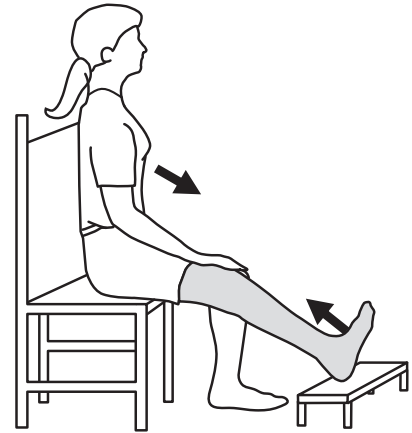
7. Back of Thigh Stretch (hamstrings)

- Sit on edge of firm seat and place heel on step
- Straighten leg and pull toes towards you
- Keep back straight and bend forward until gentle stretch is felt on back of thigh

Hold ____ seconds.

Repeat ____ times.

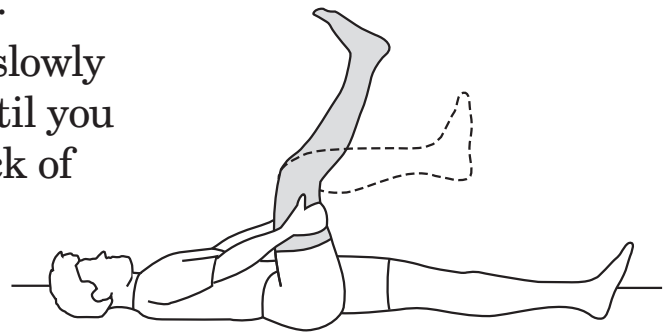
Do __ times per day.



8. Alternate Back of Thigh Stretch

- Bend your knee towards your chest.
- Hold your leg behind the knee and slowly attempt to straighten your knee until you feel a comfortable stretch in the back of your thigh.
- Slowly bend your knee and relax.

Repeat ____ times on each leg.

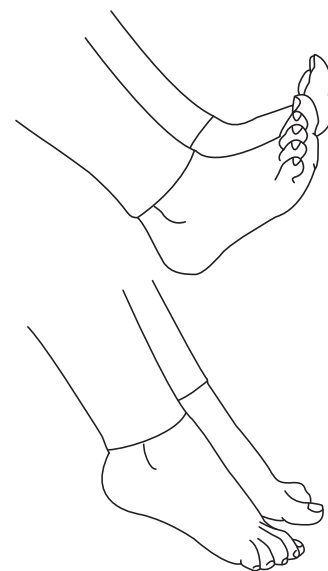


9. Pump Your Ankles

- If you are lying down, move feet up and down
- If you are sitting, place feet flat on floor, lift toes up then lift heels up

Repeat ____ times.

Repeat ____ times per day.



10. Mini Knee Bends

- Hold counter or table for support
- Stand tall with feet flat on floor
- Bend hips and knees slightly, keeping weight on your heels and knees over second toe
- Slowly return to start position

Hold ____ seconds.

Repeat ____ times.

Do __ times per day.

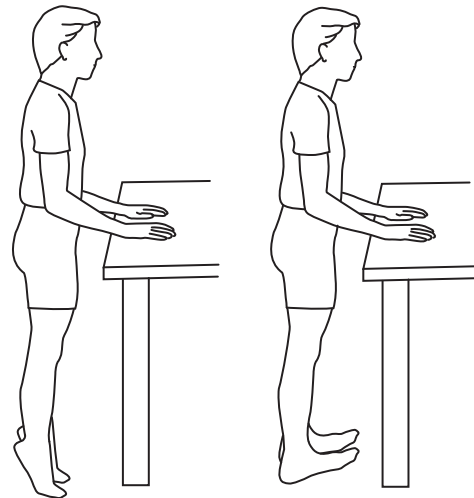


11. Toe-Heel Ups

- Hold counter or table for support
- Rise up on toes
- Hold ____ seconds
- Rock back on heels, lifting toes up

Repeat ____ times.

Do __ times per day.



Graphic images adapted from:
Visual Health Information
Therapy Skill Builders
Physio Tools

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