

# Knee Replacement Surgery

## Dartmouth General Hospital (DGH)

## Halifax Infirmary (HI)

### **Halifax Orthopedic Assessment Clinic:**

Bayers Lake Community Outpatient Centre  
420 Susie Lake Crescent, Halifax, NS:

› Phone: 902-473-1501

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45 Alderney Drive, Dartmouth, NS:

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Please review this guide and bring it with you to all appointments.

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# Pre-surgical checklist

## What you will need at home after surgery:

- ☐ Safety equipment that has been properly fitted. Your health care team will tell you what equipment you will need (see page 16).
- ☐ Someone to help you at home and stay overnight for the first 5 to 7 days after surgery (strongly recommended)
- ☐ Consider moving to the main level of your home for the first 2 to 4 weeks after surgery, or move to another location that is more accessible, if possible.
- ☐ Someone to drive you to appointments for 6 to 8 weeks after surgery

## Night before or morning of surgery:

- ☐ Follow the instructions from the Pre-Admission Clinic about eating, drinking, and taking medications.
- ☐ Have a shower or bath.
- ☐ Your pre-admission team and/or surgeon may recommend you use chlorhexidine gluconate (CHG) pre-moistened cloths.
- ☐ Remove all nail polish on your fingers and toes.
- ☐ **Remove all jewelry. Do not** bring jewelry with you to the hospital.

## What to bring to the hospital (please label all of your belongings):

- ☐ This guide
- ☐ Your 2-wheeled walker so you can practice. Ask your support person to hold onto it until it is needed.
- ☐ 1 to 2 sets of loose-fitting clothes (like loose shirts, pants with an elastic waist)
- ☐ Shoes with a rubber sole and an enclosed back (no Crocs™, sandals, or slip-on shoes without a closed heel). Make sure there is enough room to allow for swelling.
- ☐ Personal care items (like soap, toothbrush, toothpaste, denture care items, deodorant). Nova Scotia Health is scent-free. All personal care items must be scent-free.
- ☐ Dentures, hearing aids, and glasses, CPAP machine (if needed), and labelled cases to store them in
- ☐ All prescription medications in their original containers or in blister packs



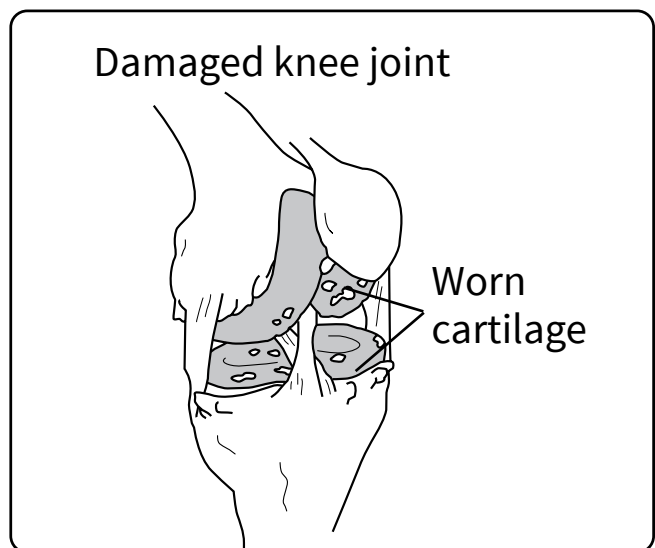
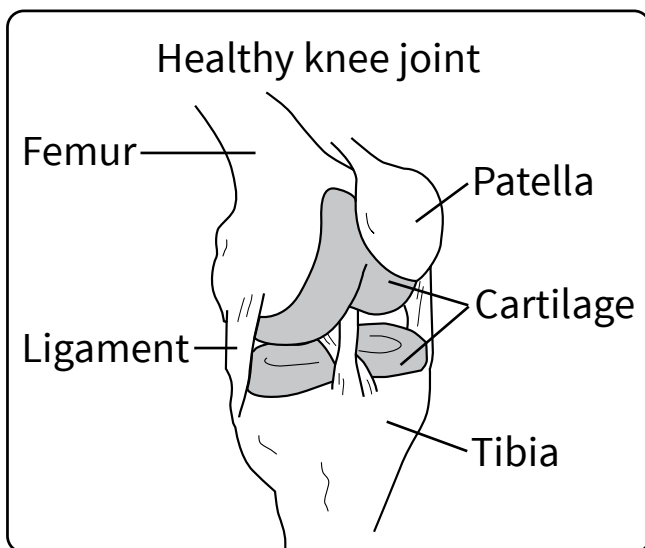
## **What you will need when you leave the hospital:**

- ☐ Follow-up appointment information:
  - › Your health care team will let you know at discharge who will remove your staples or stitches (if needed). This usually happens around 14 days (2 weeks) after surgery.
  - › You may also get follow-up appointment information by phone or mail after discharge.
- ☐ Physiotherapy exercises
- ☐ Medication instructions and prescriptions
- ☐ Instructions for incision (cut) and dressing (bandage) care at home
- ☐ Any other important discharge instructions from your surgeon and health care team

# Why do I need surgery?

## How does the knee work?

- The knee has 3 bones:
  - › Thigh bone (femur)
  - › Lower leg or shin bone (tibia)
  - › Kneecap (patella)
- The knee joint works like a hinge, letting the lower leg (shin) bone move back and forth over the thigh bone. This lets you bend and straighten your knee.
- Muscles, ligaments, cartilage, and bones all help support and strengthen the knee joint to let it move freely. Cartilage acts as a shock absorber for the joint.



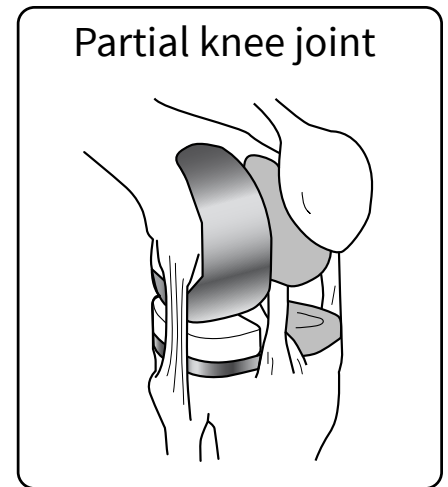
## What is osteoarthritis (OA)?

- Most people who need knee replacement surgery have a knee that has been affected by arthritis (inflammation or swelling of the joint). This usually gets worse as a person gets older.
- OA is a type of arthritis caused by the breakdown of cartilage on the ends of the bones inside a joint.
- As the cartilage wears away, or even wears out, the bones may rub directly against each other. This can cause stiffness and pain.

# Why do I need surgery?

## What is knee replacement surgery?

- Knee replacement surgery (also called **arthroplasty**) is when a surgeon removes all or part of the knee joint and puts in a new artificial joint (also called a **prosthesis**).
- After surgery, people can usually move the joint more easily, have less pain, and walk more comfortably for many years.
- Based on the reason you need surgery and many other factors, the surgeon will decide which type of surgery is best for you. The main types are:
  - › **Total knee replacement:** The diseased joint is replaced with an artificial joint. An incision is made and muscles and ligaments are moved out of the way. The damaged bones are then reshaped to fit the prosthesis. The bottom of the femur and top of the tibia are then replaced with metal pieces, separated by a plastic liner. The muscles are then repaired, and your skin is closed with stitches or staples. This is the most common surgery for OA.
  - › **Partial knee replacement:** If only part of the knee joint is damaged, the surgeon may decide to replace only the inside or, outside (**unicompartmental**), or **patellofemoral** (knee cap) part of the joint.
  - › **Knee revision:** Sometimes parts of an artificial knee need to be replaced because the joint is infected, loose, worn out, or there is bone loss.
- Knee revision surgery can be more complex, and you may need more rehabilitation (rehab) after surgery. You may not be able to put as much weight on your new joint while you are recovering.



# Why do I need surgery?

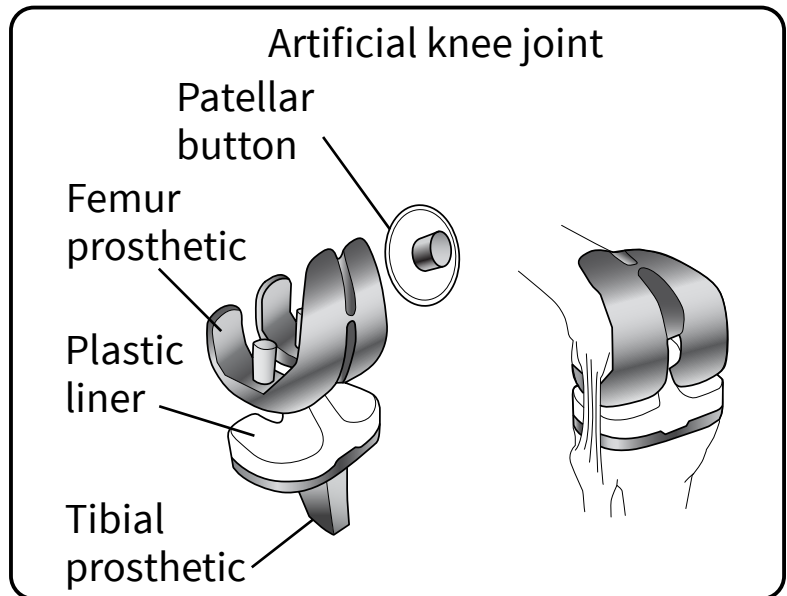
## What is my new knee made of?

- Your new knee joint (prosthesis) is made of metal and plastic. The prosthesis makes the knee joint smooth again, easing pain and making movement easier.

## How is my new knee attached?

- **Cemented:** The new knee is attached to the existing bone with special cement.
- **Non-cemented:** A special coating is used that helps the existing bone stick to the new knee. Over time, your body makes new bone tissue that grows into the tiny spaces in the coating, helping the joint to become firmly attached.
- **Hybrid:** Cemented and non-cemented substances are used.

**Note:** Your surgeon will decide what is best for you based on your age, disease type, bone quality, and other factors.



## Knee Guidelines

- After knee surgery, you must follow **Knee Guidelines**, which your surgeon or health care team will review with you. These guidelines will help your joint heal properly after surgery.
1. **Move your knee often.** Do the exercises your physiotherapist has taught you. You are encouraged to bend your knee and get up and walk often throughout the day.
  2. **Do not** put a pillow or support directly under the back of your operated knee. Pillows and supports cause the muscles and ligaments in the back of your knee to shorten, making it hard to straighten your leg. If you use a pillow(s) to elevate (raise up) your leg, **make sure it is put along the length of your leg and that your knee is not bent while resting (see picture on page 24).**
  3. **Avoid twisting.** **Do not** plant your feet on the floor while twisting your upper body. This puts your upper body out of line with your lower body.

# What will happen before surgery?

## How do I get ready for surgery?

### 1. Choose a coach

#### **Choose a coach to help support and guide you. They will:**

- › come to appointments and/or classes with you.
- › listen for information at your appointments to help you remember instructions.
- › help you plan your discharge home.
- › be available when you are discharged home or to another discharge location.
- › stay with you the week after discharge to help you.

### 2. Prehabilitation (Prehab)

- The more prepared you are both physically and mentally, the better your chances at a successful surgery and recovery. Prehab education and exercise classes led by other health care providers helps guide you on things you can do before and after surgery to:
  - › Increase your strength
  - › Improve your overall health and well-being

#### **Prehab includes:**

- › Exercising
  - › Eating healthy foods
  - › Working towards or maintaining a healthy weight
  - › Stopping or cutting back on smoking
  - › Understanding how to manage your pain
  - › Keeping a positive outlook
  - › Getting regular, restful sleep
  - › Working to improve or keep a healthy blood pressure
  - › Learning how to prepare for surgery and go back home
- Prehab is offered in the months leading up to your surgery. Contact your Orthopedic Assessment Clinic (OAC) if you have questions or want to be referred.

# What will happen before surgery?

## 3. Exercise

- Daily exercise before surgery will help make your recovery faster and easier. It will also help you get into a routine that will be part of your daily rehab and recovery after surgery.
- Leg exercises will help to get your leg muscles ready for surgery. Exercising other muscles, like your upper body, will also help with your rehab. For example, you will have to use your arms, shoulders, and stomach muscles to get in and out of bed, get up from a chair, and use your walking aids (like a cane or a walker) after surgery.
- If you are not sure how much to exercise, you can follow the “**2 hour**” rule. If your pain is worse than usual for more than 2 hours after exercising, you may be doing too much. Try exercising for less time or with less intensity (force). Over time, you can slowly increase the amount of time and intensity.

**Avoid activities that put a lot of pressure on your joints like:**

- › Jogging or running
- › Hiking
- › High-impact aerobics

**Activities that put less stress on your knee joints include:**

- |   |  |
|---|--|
| › Aquatic (water) exercises<br>(like swimming, water walking, or swim aerobics) | › Upper body weight lifting  |
| › Walking with or without poles   | › Stationary cycling: Make sure the bicycle seat is set to the right height to put less stress on your knee joints |
| › Tai Chi   |  |
| › Yoga (depending on the type)  | › Exercises recommended by your physiotherapist (see below)  |

**Before surgery, do the exercise program on page 42 at least once a day.**

**If you have questions about activities or exercise, ask your health care team.**

# What will happen before surgery?

## 4. Nutrition

- Eating well before surgery will give your body the nutrients and energy it needs to recover from surgery. This will speed up your recovery time and lower your risk of infection after surgery. Use Canada's Food Guide to help you choose balanced meals and snacks:  
› <https://food-guide.canada.ca/en/>

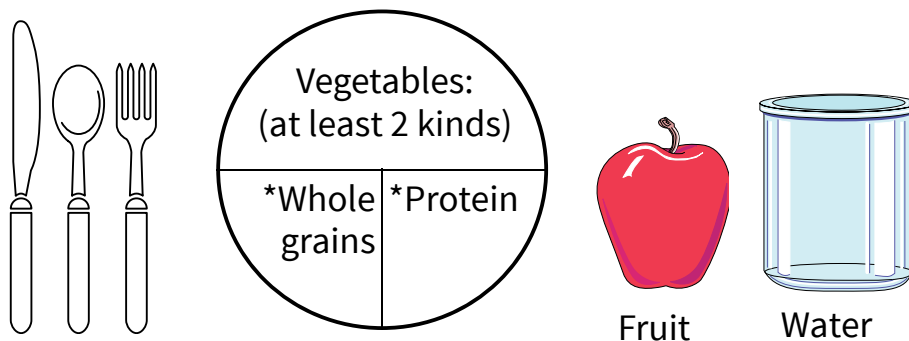


### General healthy eating tips

- Eat regular balanced meals and snacks often. If you go too long without eating (more than 4 hours), then you may be more likely to overeat at the next meal or snack.
- Try to include a protein source with every meal and snack (see next page). This will keep you full longer.
- Slow down how fast you eat and limit distractions. This will help you to listen to your body's cues about when you are getting full.
- Try making half of your plate fruits or vegetables. Choosing a mix of colours (called “**eating the rainbow**”) helps your body get the vitamins it needs.
- Limit sugary drinks like juice and pop. Make water your first choice.
- Plan ahead. Having healthy options ready will help you make healthy choices at meal times.
- Be gentle with yourself, no one is perfect!

Keep in mind that cutting out certain food groups or following a strict eating pattern may not be something you can maintain long term. All foods can fit into a healthy eating pattern. Make small changes to start and build on them over time.

**Below is an example of a balanced plate. You can use this as a guide to understand portion sizes and meal balance:**



\*Whole grains (like brown rice, whole grain pasta or bread, quinoa, oats, barley)

\*Protein (like fish, lean meat and poultry, beans, lentils, cheese, yogurt, milk, soy milk)

# What will happen before surgery?

## Nutrients and supplements

**Fibre:** Fibre helps to improve our gut health, help to stabilize blood sugars, and reduce cholesterol. These are all important to control before surgery. Fibre can also help to manage bowel concerns like diarrhea (loose watery poop) or constipation (not being able to poop), which is common after surgery. Gradually add more fibre while also increasing your fluids. Try to eat 25 to 38 grams of fibre a day, and 8 cups (2 litres) of fluids per day.

- Fibre sources: Whole grains (like whole grain cereals/breads, oats, brown rice, quinoa, and barley), vegetables, fruit, beans, lentils, nuts and seeds.
- Talk to a member of your health care team if you are having ongoing concerns with diarrhea or constipation.

**Protein:** Eating enough protein before and after surgery will speed up your recovery. Protein is needed to improve your strength before surgery and reduce muscle loss during recovery. Eat more protein for at least 14 days (2 weeks) before your surgery until at least 2 weeks after your surgery. Eat about 25 to 30 grams more protein a day. Try to include protein at every meal and snack (aim for 4 times a day).

- Protein sources:
  - › Fish
  - › Lean meats (like chicken, turkey)
  - › Eggs
  - › Beans and Lentils
  - › Nuts and Seeds
  - › Peanut butter
  - › Cow's milk, or high protein milk alternatives (like soy milk)
  - › Cottage cheese
  - › Greek yogurt
  - › Soy products (like soy milk, tofu, edamame)
- If you find it hard to eat this much protein, you can add nutritional supplements, like:
  - › Protein drinks, like Boost®, Ensure®, Sperri™, Premier Protein®, or Glucerna® (if you have diabetes)
  - › Protein powders: Try adding them to oatmeal, yogurt, or smoothies.
  - › Protein bars: Choose a bar with 15 or more grams of protein and limited added sugars.



# What will happen before surgery?

**Vitamin D:** Vitamin D helps your body absorb calcium and slows the progression of OA. Sources: milk, fortified plant-based milks, salmon, mackerel, sardines, and vitamin supplements (400 to 1000 IU each day). Health Canada recommends everyone over the age of 50 take a vitamin D supplement of at least 400 IU per day all year round, as we cannot get enough from our food sources or from the sun.

**Calcium:** Calcium helps bones to grow and stay strong and healthy. Try to have about 1200 mg each day.

- Sources: milk, plain yogurt, cheese, canned salmon, sardines, fortified plant-based milks, and calcium supplements (as directed by a health care provider). To find out how much calcium you are eating, visit Osteoporosis Canada's Calcium Calculator:

› <https://osteoporosis.ca/calcium-calculator/>



**Omega-3 fatty acids:** Eating more omega-3 fatty acids has been linked to fewer symptoms of arthritis and inflammation. It also helps with swelling in sore and damaged joints, and is important for our brain and heart health.

- Sources: fatty fish (like sardines, salmon, trout, herring, mackerel), omega-3 eggs, seeds (like flaxseed, flax oil), nuts (like walnuts, almonds, pecans), and omega-3 only supplements.

If you do not eat fish at least once a week, you may need an omega-3 supplement. If you have a bleeding disorder, allergies, or are going to be having surgery in the near future, omega-3 fatty acid supplements may not be right for you. Talk with your primary health care provider or a dietitian to see if this is right for you.

Always talk to your primary health care provider and/or a pharmacist before starting a new supplement.

## Nutrition risk

Malnutrition can affect all body shapes and sizes. Being malnourished (not eating enough or if you are not getting the right balance of nutrients to meet your needs) can slow your healing and your recovery after surgery.

Malnutrition can lower your energy levels, weaken your immune system, and can raise your chance of infection after surgery. To check if you may be malnourished, answer the following questions:

- › Have I lost weight in the last 6 months without trying to lose weight?
- › Have I been eating less than usual for more than a week?

If you answer yes to both, or you worry whether you are getting enough calories or protein, ask your Orthopedic Assessment Team for a referral to a dietitian.

# What will happen before surgery?

**Managing overweight and obesity:** Each pound of weight puts an extra 3 to 6 pounds of force on some of your joints. Managing your weight is not easy, as many factors like genetics, medications, and our environment all play a role. Your orthopedic team may recommend weight loss as part of your treatment plan, since losing extra weight may help improve your mobility (movement), help your new joint last longer, and lower joint pain.

- Weight loss is not right for everyone. If weight loss is recommended, it is important to do it slowly and safely. Losing weight too quickly can cause muscle loss. This can make your recovery from surgery harder and longer.
- While your weight may be part of your treatment plan, remember your overall health is not defined by your weight.
- If you are living with overweight or obesity and would like support:
  - › Talk with your primary health care provider about treatment options.
  - › Ask a member of your health care team to refer you to a dietitian.
  - › Try a Community Health Teams program (see back cover).
  - › Visit Obesity Canada for trusted information about weight and health:
    - › [www.obesitycanada.ca](http://www.obesitycanada.ca)
  - › Join Obesity Canada's free, online support group:
    - › [www.oc-connect.ca](http://www.oc-connect.ca)



## Meals and food


- It is a good idea to stock up on groceries, and prepare and freeze meals before your surgery so that you will have meals ready for when you get home from the hospital.
- Check with your local grocery store to see if they have a delivery program. You can also consider meal delivery services before or after surgery. To learn about food support programs in your area:
  - › Phone: 211
  - › <http://ns.211.ca>
- **We recommend having a friend or family member ready to help with groceries, meals, and other tasks after your surgery.**
- Reorganize your cupboards and fridge so that the most commonly-used items are within easy reach. This will help you to avoid bending down or having to use a stool.

# What will happen before surgery?

## 5. Oral health and dental work

- Good oral health before knee replacement surgery is important. **Tell your dentist about your upcoming knee replacement surgery. Let your surgeon know if you have any ongoing oral health issues, like an infection.** Keeping good oral health after surgery is also important.
- We recommend completing any dental or gum work before your surgery. If you need dental work in the first 3 months after surgery, talk to your dentist and surgeon about whether or not they want you to take antibiotics.

## 6. Stopping smoking

- Try to smoke less or stop smoking before your surgery. **Smoking causes slower healing, a higher chance of complications (like a greater risk of infection), and a longer time spent in the hospital.** Nova Scotia Health is smoke-free and vape-free. 
- For this surgery you will need to have an anesthetic (medication to put you to sleep during surgery). Your lungs should be as healthy as possible to get ready for the anesthetic, as well as for the breathing exercises you will do during recovery.
- Quitting smoking is not easy. If you are having trouble trying to stop smoking, talk to your primary health care provider or pharmacist. They can recommend medications or other tools to help. If you are concerned about withdrawal symptoms, ask about products like nicotine patches.

### The following resources may help:

- Mental Health and Addictions Program
  - › <https://mha.nshealth.ca/en>
  - › Phone (toll-free): 1-855-922-1122
- The Lung Association of Nova Scotia
  - › [www.lungnspei.ca](http://www.lungnspei.ca)
  - › Phone (toll-free): 1-888-566-5864 (for support groups in your area)
- Dial 8-1-1 to ask about the Tobacco Free Nova Scotia Program, or visit:
  - › <https://tobaccofree.novascotia.ca>

# What will happen before surgery?

## 7. Pain management

- Taking pain medication can help you stay active, lower your pain, and help you sleep. **The most common types of medications for managing joint pain include:**
  - › **Analgesics:** These work quickly to lower pain without many side effects. Example: acetaminophen (Tylenol®).
  - › **Anti-inflammatory drugs:** These lower pain and swelling, but have a risk of side effects, like bleeding or upset stomach. Examples: Aspirin®, ibuprofen (Motrin®).
  - › **Narcotics:** This type of medication tends to have more side effects, most commonly drowsiness, constipation, and nausea (feeling sick to your stomach). Examples: Tylenol® with Codeine No. 3, morphine.
- Your primary health care provider may prescribe a combination of these medications for you. Check with them about all side effects and whether or not the medication(s) is safe for you. Tell your primary health care provider and surgeon about all medications you are currently taking, including over-the-counter medications, vitamins, and herbal supplements.

### Complementary therapies

- Some people use physiotherapy, massage, chiropractic, acupuncture, holistic medications, and other therapies to help with their pain.
- **Ice** may help to lower pain and swelling. Applying ice after exercise can help to calm irritation in your joint.
  - › Wrap your joint in a towel. Apply ice or a bag of frozen vegetables for up to 15 to 20 minutes. Repeat every 2 hours (or once your skin has gone back to normal temperature and colour), as needed.
  - › After you exercise, apply ice for 15 for 20 minutes.
  - › **Do not** use ice if you cannot feel heat or cold on the skin around your joint.
  - › **Do not** fall asleep with ice on.
- **Heat** may also help to control pain, lower muscle stiffness, and relax tense muscles. Applying heat before exercise can help to warm up your joint.
  - › Apply heat for up to 20 minutes, 3 times a day.
  - › **Do not** use heat if your joint is swollen or throbbing.
  - › **Do not** fall asleep with heat on.

# What will happen before surgery?

## 8. Activities and services

- Do errands or activities that require you to leave the house before your surgery, like banking. Cancel any services you will not need while you are in the hospital including home care for the day of your surgery.
- Get a fanny pack or a lightweight backpack to carry small things around your house. This will let you keep your hands free to use your walker or cane. You can buy trays for certain types of walkers, to help you carry things around your home. Please see page 40 for equipment options (like renting, loan programs).
- Get a pair of slip-on shoes with an enclosed heel or shoes with elastic laces. Make sure there is enough room in case your feet swell after surgery.

## 9. Arranging for help

- **If you do not have someone living with you who can help, arrange to have a support person stay with you after your surgery.** The length of time will depend on your personal situation, but you should plan for at least 5 to 7 days.
- Arrange to have someone take you home from the hospital on the morning of your discharge day. **Most people stay in the hospital for 1 day. It is possible that you may go home the same day as your surgery.** Make sure your travel arrangements are flexible.
- Your support person should have a key for your mailbox, a house key, and instructions for caring for your pets and plants. If you are going to be staying at a temporary location after your surgery, make sure that you have arranged for someone to help you at that location.

## 10. How do I get my home ready?

- **It is important to set up your home or other discharge location before your surgery.** This will let you move more safely and freely, lowering the risk of falls, and helping you save your energy.

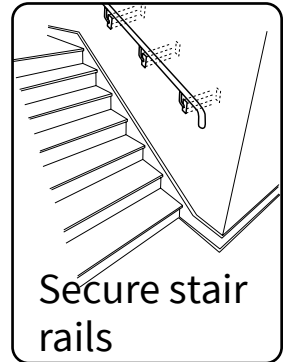
### Living space

- Set up a recovery area in your home. Try to use a firm chair that is at knee height and has armrests. A higher chair will make it easier to go from sitting to standing. You may use this chair for about 12 weeks. **Do not** sit in low or soft chairs. If your chair is too low, use firm, dense cushions to make it higher. Make sure your phone and a list of important phone numbers are in easy reach of the chair.

# What will happen before surgery?

## Floors and stairs

- Remove area rugs, electrical cords, doorway obstacles, and other hazards that may get in the way.
- Make sure hallways, stairs, and bathrooms are well-lit.
- Buy bags of salt or sand if icy weather is expected. Arrange to have someone shovel and take care of your walkways. Stock wood for your wood stove, if needed.
- Make sure there are handrails on all staircases, both indoors and out.
- If possible, plan to stay on the main level of your home for the first few weeks after surgery in case you find stairs too challenging. A commode (portable toilet) can be used if your bathroom is upstairs. If your bedroom is upstairs, consider moving a bed to the main level, if possible.



## Bathroom

- Add other recommended equipment, like:
  - › non-slip bath mat (inside and outside of shower/tub)
  - › hand-held shower head
  - › grab bars (for tub)
  - › bath transfer bench (for tub)
  - › shower chair (for a walk-in shower)
  - › raised toilet seat and/or toilet safety frame
- If you find it hard to get in and out of your tub or shower, talk with your health care team.
- **Do not** use towel racks, curtain rods, or toilet paper holders to help you to stand or sit. They are not strong enough to support you.
- Install nightlights along the route from your sleeping area to the bathroom.



# What will happen before surgery?

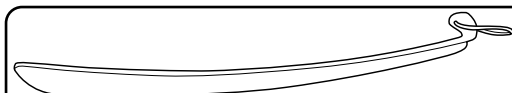
- Your health care team will work with you to meet your specific equipment needs.

## Dressing/bathing aids (if needed):

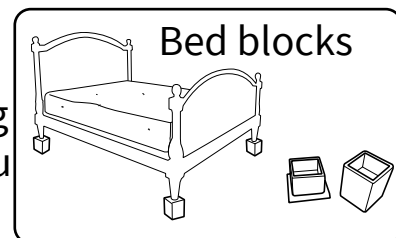
- › long-handled reacher
  - › long-handled shoe horn
  - › sock aid
  - › long-handled sponge
  - › elastic laces (or use slip-on shoes with an enclosed heel)
- Remember when getting dressed, you should be working on flexing or bending your operated knee as much as you can.



Long-handled reacher



Long-handled shoe horn



Bed blocks

## Bedroom

- Your mattress should be at about knee height. If it is not, think about adding a box spring or bed blocks underneath.
  - › If your bed is too high, remove your box spring to make it a better height while you recover.
  - › To prevent falling **do not** use a stool or step to get in your bed.
- Set up a bedside table for things you use often.



## Walking aids:

- › 2-wheeled walker (most people)
- › cane



## 11. Where can I get equipment?

- If you do not already have the equipment you will need, make sure that you will be able to buy, rent, or borrow what is recommended (from family, friends, or an equipment loan program in your community). **Make sure to have this equipment at home 1 week before your surgery.** Measure doorways and the spaces in and around toilets, tubs, and shower enclosures to make sure the equipment will fit properly.
- **Make sure you examine any equipment before your surgery to make sure it is in good working condition.** Remember that equipment is not “one size fits all”. You may not be able to adjust it to fit yourself.

# What will happen before surgery?

## Renting or buying equipment

- Many home health care suppliers, like drugstores and medical suppliers, offer equipment rentals. Some offer “rent to own” as an option. Check in the Yellow Pages™ or online for a list of local suppliers. Private insurance providers often cover equipment costs with a prescription. Check with your private insurance provider about your coverage (if you have one).

## Equipment loan programs

- Some local groups, like Lions Clubs, The Royal Canadian Legion branches, or Kin Canada (Kinsmen, Kinettes, Kin) clubs, have equipment available to loan to local residents. Check for groups in your area that offer this service.
- **The Canadian Red Cross** has an equipment loan program in many areas of Nova Scotia. Equipment is loaned out for 3 months at no cost (with a referral from a health care provider). Check with your local Red Cross or visit:
  - › [www.redcross.ca](http://www.redcross.ca)

## Income Assistance

- If you are on Income Assistance, the length of time that you need equipment may affect where you get it from. If you need it for a short time, borrowing equipment from a loan program may be the best option. If you will need equipment for a longer time, contact your Income Assistance worker to ask about funding. A prescription and 2 quotes from equipment suppliers are usually needed.

## Pre-Admission Clinic

- You will get an appointment at the Pre-Admission Clinic. You will get the date and time of your appointment by phone or mail. This appointment will help you to get ready for your surgery. This **usually happens in the month before your surgery**. This appointment may take up to 3 to 4 hours and may happen in person or over the phone.
- **Bring a family member or friend**, preferably your coach, with you to this appointment to listen and take notes.



# What will happen before surgery?

- **Make a list of questions and bring it with you.** At this appointment, you will be able to ask your health care team questions and talk about any concerns you have.
- Bring all of your prescriptions, over-the-counter medications, and natural health products or supplements in their original containers or blister packs. **You may need to stop taking some medications and supplements before your surgery. This will be reviewed with you during your pre-admission appointment. You will be told what medication(s) to stop taking and when to stop taking them.**
- **You will talk to a nurse.** They will ask you questions about your health, including your medical history and any surgeries you have had. The nurse will give you information about your surgery, including when to stop eating and drinking, when to arrive at the hospital, and where to go when you arrive.
- **You may talk to an anesthesiologist** (a doctor who gives medications to put you to sleep or help with pain during surgery). They will talk with you about the pain medication you will need during and after your surgery.

## **At the Pre-Admission Clinic, you may also have the following tests:**

- › EKG (electrocardiogram): A test that records the electrical activity of your heart
- › blood tests
- › urine (pee) sample
- › X-ray
- Depending on the results of these tests, you may need follow-up tests and your surgery may need to be postponed. Your surgery may need to be postponed if you have an active infection (like a cold or flu) or a skin infection over the joint. **If you feel sick before your surgery, call your surgeon's office.**

## **Questions you may want to ask:**

- What type of anesthetic will I be having?
- What are the possible side effects and complications of this medication?
- What can I do to prevent complications before and after surgery?
- Will I be able to hear and see what is happening during surgery?
- What should I do if I have pain after surgery?
- If I am given a spinal anesthetic during surgery and do not feel pain right after surgery, should I still have pain medications regularly?

# What will happen during surgery and recovery?

- Depending on which hospital you have your joint replacement surgery in, things may look slightly different. Below is a general overview of what to expect.

## Day of surgery

- **Do not** bring any valuables with you. **The hospital is not responsible for the loss of any item.**
- Bring your provincial health card.
- Bring all of your medications in their original containers or blister packs.
- Go to the admitting desk and they will tell you where to go.

## During surgery

- A nurse will help you get ready for surgery. They will update your health history and review your medications. Your blood pressure, pulse, weight, and temperature will be taken, and an intravenous (I.V.) will be started. You will be given a spinal or a general anesthetic.
- If you are having a spinal anesthetic (nerve block), an anesthesiologist will put a very small needle between 2 bones in your back (vertebrae) and inject local anesthetic (numbing) medication around your spine. You will feel numb in the lower part of your body (hips and below) and will not feel any pain. You will not be able to move certain areas for up to 4 hours after surgery. As the numbness wears off, you will have more pain and discomfort and will need medication for pain.
- If you are having a general anesthetic, you will be given a combination of medications to make you unconscious during surgery. You will not feel anything during surgery.
  - › Your anesthesiologist will give you medication through your I.V. to make you relaxed and sleepy.

## After surgery

- After your surgery, you will be taken to the recovery room for about 1 to 4 hours. You may be given oxygen. The nurse will check your vital signs often, including your pulse and blood pressure. **Tell your nurse if you are in pain.** You may be given pain medication through your I.V., as needed.

# What will happen during surgery and recovery?

## How long will I be in the hospital?

- You will likely go home the day after your knee replacement surgery. Your health care team will work with you to make sure you are medically stable (your vital signs and blood work are good), can move safely, and are able to manage daily tasks before you go home. **Before surgery, it is important to make arrangements to have someone pick you up from the hospital at discharge. If you are staying overnight, you will be discharged before 11 a.m.**
- Because you will be moving less for some time after surgery, keeping your lungs clear is very important. Start doing deep breathing and coughing exercises as soon as you can after surgery.
- Deep breathing after surgery:
  - › Keeps your lungs fully expanded (made bigger)
  - › Clears mucus from your lungs and throat
  - › Lowers your chance of getting a chest infection (pneumonia)
- Try to do the following deep breathing and coughing exercises every hour while you are awake.

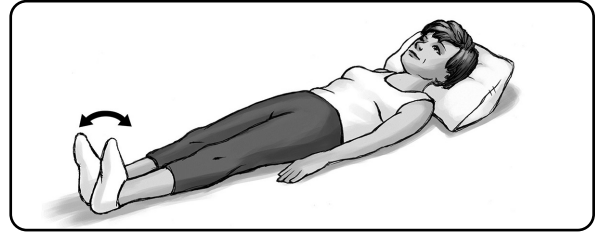
## Deep breathing and coughing

1. While sitting or lying down, put both hands high on your stomach below your rib cage.
2. Breathe in as deeply as you can. Feel your stomach push out against your hands.
3. Hold briefly for 2 to 3 seconds.
4. Breathe out slowly through your open mouth.
5. Repeat 3 to 4 times.
6. Give a strong cough. **Clearing your throat is not enough.**
7. Follow this with 2 to 3 more deep breaths.
8. Do this exercise every hour while you are awake.

# What will happen during surgery and recovery?

## Foot and ankle pumping

- Another way to help prevent complications after surgery is to pump your feet and ankles. This helps the blood flow in your legs and helps prevent swelling and blood clots. Foot and ankle pumping should be done every hour while you are awake.



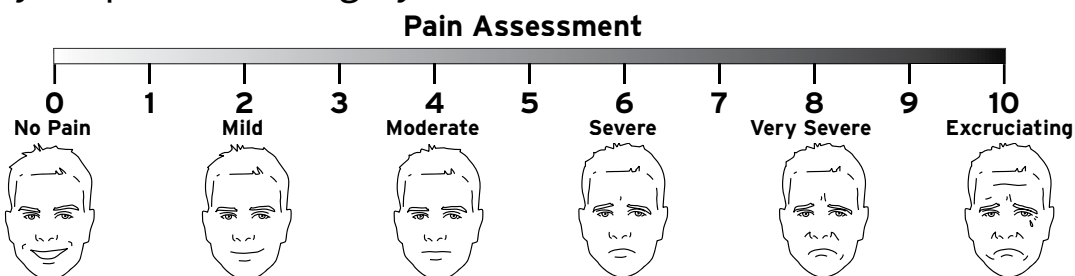
1. Relax your legs.
2. Gently point your toes towards the ceiling.
3. Then gently point your toes towards the bottom of the bed.
4. Do this exercise for 1 to 2 minutes every hour while you are awake.

## After surgery

- Most people can put their full weight on their leg, as tolerated (weight you can comfortably put on your leg when standing or walking).
- Sometimes the surgeon gives a restriction on your weight bearing. Your care team will review this with you before standing or walking.
- **Ask your physiotherapist or nurse if you do not know how much weight you can put on your leg.**
- Staff will help and encourage you to stand, walk, and go to the bathroom after surgery using your walker.

## Pain control

- Your nurse will ask you to use the pain scale below or a similar scale to describe your pain after surgery.



- **Our goal is to keep your pain around 3 or 4 or lower after surgery.**

# What will happen during surgery and recovery?

- As your pain starts getting to level 3 or 4, call for your nurse. Pain medication can usually be given every 3 to 4 hours, and will **only be given if you ask for it**. At home you will control your own medication, so make sure you understand how to do this before you leave the hospital. **Ask your nursing team if you have any questions**. People who ask for and get pain medication do better during their recovery. If you are in pain, it will be harder to get moving. Pain can also make you feel nervous or upset and afraid to do the exercises you need to recover. **It is important to ask for medication when your pain gets worse**.
- It can also help to have pain medication about 30 to 60 minutes before your exercises.
- **It is not a good idea to tough it out after surgery and refuse medications to help your pain.**

## What type of pain medication will I get?

- You will get pain medications similar to those prescribed before surgery (see page 13). Take your pain medications as prescribed by your surgeon.

## What are the side effects of pain medications?

- Make sure to tell your nurse if you have any of these side effects:
  - › Nausea
  - › Vomiting (throwing up)
  - › Drowsiness
  - › Itchiness
  - › Constipation

## Constipation

- You may have constipation after surgery. This happens because of a change in foods you are eating, being less active, and taking pain medication.

### To help with constipation:

- Drink at least 8 glasses of water or low-calorie fluid every day.
- Eat fibre, like prunes, bran, beans, lentils, fruits, and vegetables.
- Your nurse may give you a laxative (medication to help you have a bowel movement/poop) and/or stool softener. You may need to keep taking these medications at home. If you have constipation at home, talk with your primary health care provider or pharmacist as soon as you can. **Constipation can be serious. Do not ignore your symptoms.**
- Move around as much as you are able and do your exercises.
- Eat small snacks often during the day.

# What will happen during surgery and recovery?

## Bladder function

- Some people have trouble peeing after surgery. Tell your nurse right away if you are having problems, as you may need a temporary catheter (hollow tube to drain your urine).

## Blood clots

- A very small number of people get blood clots after surgery. Blood clots usually develop in the deep veins in the legs (Deep Vein Thrombosis or DVT). People who are not active or who have problems with their circulation are more likely to develop a blood clot.

### Symptoms of a DVT:

- › an increase in pain, swelling, or tenderness in the calf or thigh of **either leg**, or in the groin area
- › heat and redness in the lower leg
- In some cases, a blood clot may travel from your leg to your lung, cutting off the blood flow to your lungs. This is known as **Pulmonary Embolism (PE) and is a medical emergency**. PE is rare, but you should know the signs just in case.

### Symptoms of a PE:

- |   |   |
|---|---|
| › Cough (that you did not have before surgery)    | › Very bad sweating (while resting)   |
| › Trouble breathing (worse than before surgery)   | › Dizziness, feeling lightheaded, fainting  |
| › Wheezing (that you did not have before surgery) | › Confusion (that you did not have before surgery)  |
| › Coughing up blood                               | › Sharp, knife-like pain in the chest or back when you breathe in (worse than before surgery) |
| › Fever (temperature above 38 °C or 100.4 °F)     |   |

If you have any signs or symptoms of a DVT, call the OAC or your surgeon's office right away. If you do not get through on your first call or if it is outside of office hours (like an evening, overnight, a weekend, or a holiday), call 911 or go to the nearest Emergency Department right away.

A PE can be life threatening. If you have any signs or symptoms of a PE, tell the nurse or doctor right away. If you are at home, call 911 right away.

# What will happen during surgery and recovery?

## Blood-thinning medication (blood thinner)

- This medication helps stop blood clots from forming. Your surgeon will prescribe the type and dose that is best for you. **It is important to take this medication as prescribed until it is all gone.** You will get blood-thinning medication by needle or in pill form while you are in the hospital after your surgery, and after you get home. When you get home, you will give yourself this medication. **Your nurse will teach you how to give yourself this medication.**

## Swelling

- It is common to have some swelling in your leg after surgery, sometimes as far down as your foot. This may get worse as you become more active. Swelling may make it harder to move, make your pain worse, and lower your range of motion.
- To help lower swelling:
  - › Do foot and ankle pumping exercises (see page 42).
  - › While lying down, put pillows lengthwise under your calf (operated leg). Follow **Knee Guidelines** (see page 5).
  - › Do short periods of activity. **Do not** stay in the same position for a long time. For example, go for a short walk, rest, then repeat.
  - › Use ice (see page 13). Your surgeon may recommend an ice machine or a cold therapy system to help with swelling.



## Bruising

- You will likely have some bruising after surgery at the site of your surgery and/or on your operated leg.

## Anemia (low blood count)

- If you lost blood during surgery, you may have anemia. Tell your nurse if you have any of these symptoms of anemia while in the hospital:
  - › Feeling faint, weak, dizzy, or tired
  - › Fast heartbeat
  - › Trouble breathing

If you have any of the symptoms above once you get home, call your primary health care provider. You may need an iron supplement.

# What will happen during surgery and recovery?

To lower the risk of complications:

- Do foot and ankle pumping (see page 42).
- Walk regularly.
- Take your blood-thinning medications as prescribed by your surgeon.

## Activity guidelines after surgery

- Move your knee often.
- Do not put a pillow directly under your knee.
- If needed, raise your leg by putting a pillow(s) lengthwise under your leg. Make sure your knee is straight (see picture on previous page).
- Do not twist your knee.



# Activity guidelines after surgery

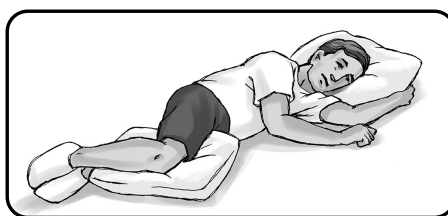
## To get in bed:

1. Using your walking aid, back up until you feel the bed behind you. Slide your operated leg forward and sit on the edge of the bed.
2. Move your walking aid out of the way.
3. Use your arms for support to slide your bottom across the bed, and bring both legs up onto the bed (you may use your arms to lift your operated leg onto the bed, if needed).
4. You can have someone help lift your leg onto the bed or use your non-operated leg, if needed.



## Lying down and/or sleeping

- If you are lying down and/or sleeping on your bed, it is best to lie on your back.
- Try to keep your knees and toes pointing up.
- If you need to lie on your side for comfort, lie on your non-operated side and put 1 or 2 pillows between your knees. This will help stop your operated leg from falling forward. After your discharge from the hospital, you may start to tolerate other positions. **Remember to keep following any Knee Guidelines your surgeon has given you (see page 5).**
- You may have trouble sleeping for up to 12 weeks after your surgery. This is common.
  - › If you sleep on your back, **do not** put a pillow under your operated knee. This may cause your knee to heal in a bent position.



# Activity guidelines after surgery

## To get out of bed:

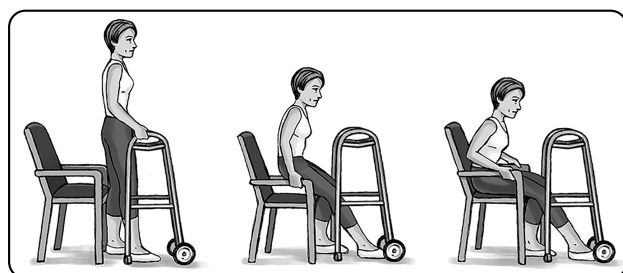
1. Make sure that you can reach your walking aid.
2. Using your elbows for support, bend your non-operated leg to slide your bum to the edge of the bed.
3. From a semi-lying position, push up on your elbows and hands.
4. Slide your hips and legs over to the edge of the bed.
5. Swing your body around to sit up.



6. Stand up, using your non-operated leg for support.
7. Once you have your balance, use your walking aid.

## To sit in a chair:

1. Back up until you feel the edge of the chair touching the back of your leg.
2. Reach for the arms of the chair behind you, and hold onto the armrests.
3. Lower yourself to a sitting position slowly and gently.
4. Reposition yourself to the back of the chair.

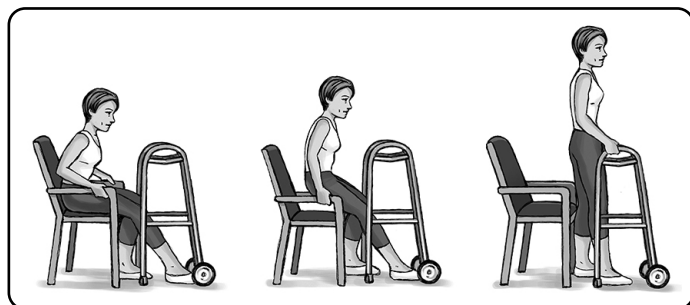


5. Bend the knee on your operated leg to a comfortable position.

## Standing up

### To stand up from a chair:

1. Move to the edge of the chair.
2. Bend your legs under you to hold your body weight.
3. Push down with your hands on the armrests, and raise your body to stand up. Put most of your weight on your non-operated leg.
4. Once you have your balance, use your walking aid.



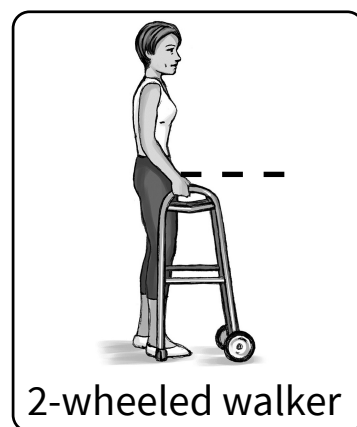
# Activity guidelines after surgery

## Sitting down

- Your chair should have a firm seat and armrests. When you sit down, have your hips higher than your knees. This may make it easier to stand up. You can make the seat higher by adding a firm cushion. **Do not** sit in low or soft chairs.

## Walking

- On the day of your surgery, you will get up and walk. Make sure a nurse or physiotherapist is with you the first few times you get out of bed. You may feel weak or dizzy. Tell the nurse or physiotherapist if you feel weak or dizzy. The physiotherapist will make sure you are walking correctly. They will also tell you when it is safe for you to walk by yourself using your walking aid.
- Take short walks as often as you can, using your walking aid. Try to walk longer distances as you are able.
- To measure the proper height for your walker and/or cane, make sure the handle of the walker and/or cane is at your wrist when you are standing up straight, and your arm is hanging by your side.
- As you recover, **do not** start using a different walking aid without talking to your physiotherapist or surgeon first.
- Your walking aid can help you:
  - › lower stress on your joint.
  - › lower pain.
  - › improve how you walk.
  - › gain your balance to lower your risk of falling.



## Walking with a 2-wheeled walker:

1. Move your walker ahead first.
2. Step forward with your operated leg first, then your non-operated leg second.
3. Bend your operated knee as you are walking.
4. When changing direction, turn toward your non-operated side, if possible. Pick up your feet to take small steps. In between taking steps, pick up and reposition the walker as you turn. **Do not** twist your body.

**Walking with a cane:** You will use a walker at first, and then progress to a cane as recommended by your physiotherapist. Put the cane in your hand on the side of your non-operated leg. Move your cane with you, stepping forward with your operated leg. Follow with your non-operated leg.

# Activity guidelines after surgery

## How do I climb stairs?

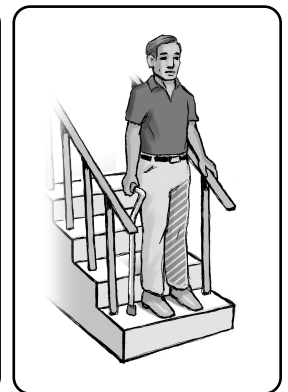
### To climb stairs with a handrail and a cane:

1. Hold the handrail with one hand and the cane in your other hand.
2. Stand close to the first stair.
3. Step up onto the first stair with your non-operated leg.
4. Straighten your non-operated leg, and bring the cane and your operated leg up together, so that both feet are on the same stair.
5. Use the handrail and cane for support.
6. Repeat steps 1 to 5 for each stair.



### To walk down stairs with a handrail and a cane:

1. Hold the handrail with one hand and the cane in your other hand.
2. Stand close to the first stair, facing down the stairs.
3. Step down onto the first stair with your cane, followed by your operated leg.
4. Then step down onto the same stair with your non-operated leg.
5. Use the handrail and cane for support.
6. Repeat steps 1 to 5 for each stair.



**Remember:** Your non-operated leg goes up first and your operated goes down first.

**Even if you do not have stairs at home, try to learn how to climb stairs safely.** Your physiotherapist will practice climbing stairs with you before you leave the hospital.

# Activity guidelines after surgery

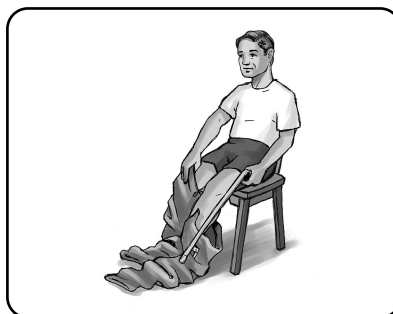
- If you were getting dressed without using dressing aides before your surgery, try to continue without using them after surgery. This will help you bend your operated knee and strengthen the muscles around it.
- If you still cannot get dressed without using aides, these directions may help. Remember to keep bending at the knee as much as you can while getting dressed.

## To put on your underwear and/or pants:

1. Sit on a firm chair or at the edge of your bed.
2. Lower your clothes to the floor. If you try and cannot reach down to pick up your clothes, use a reacher or grabber.
3. Dress your operated leg first, then your non-operated leg.
4. Pull your pants up past your knees. Make sure that your feet come through your pant legs fully.
5. Stand up and pull your pants up the rest of the way. Use your walking aid for support.

## To take off your pants:

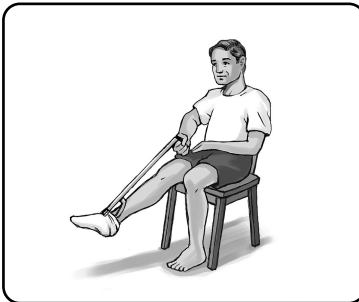
1. Stand in front of a firm chair or at the edge of your bed. Hold on to your walking aid with one hand.
2. Use your other hand to start lowering your pants to the floor.
3. Lower your pants enough that you can sit on the chair or on the edge of the bed without sitting on your pants.
4. Use the reacher to lower your pants the rest of the way, if needed. Undress your non-operated leg first, then your operated leg.



# Activity guidelines after surgery

**To put on your socks using a sock aid (loose fitting above-ankle socks work best):**

1. Put your sock on the sock aid. Pull the sock on tight, so that the toe of the sock is not hanging over the edge of the sock aid.
2. Lower your sock aid to the floor.
3. Slide your foot into the sock aid and pull the sock aid up.
4. If the sock does not come up all the way, use a reacher to help pull the sock up.
5. Baby powder or cornstarch can help you slide your socks on.



**To take off your socks:**

- You can take off your socks using a reacher or a long-handled shoe horn (try not to scratch your skin).

**Using a long-handled shoe horn**

- Use slip-on shoes with an enclosed heel (or shoes with elastic laces) that are a half-size bigger than you usually wear. This will leave room for possible swelling after surgery.



**To put on your shoes:**

1. Position your shoe using a long-handled shoe horn.
2. Slide your foot into your shoe using the shoe horn.

**To take off your shoes:**

- Use a long-handled shoe horn to slip off your shoe.

# What can I expect at home?

## Before you leave the hospital

- Make sure you understand how to care for your incision (see page 36).
- Make sure you have prescriptions for any new medications.
- Make sure you know about follow-up appointments with your surgeon, and any other appointments you will need as part of your follow-up care.

## Follow-up appointments

- **When you get home, make sure you review any paperwork you were given in the hospital.**
- Your first follow-up appointment with your surgeon will usually be between 2 to 6 weeks after your surgery.
- **Write down any questions you have for your surgeon and bring them with you.**
- It is a good idea to have a family member or friend come with you to your first follow-up appointment to listen and take notes.
- You can expect to see your surgeon over the next year.

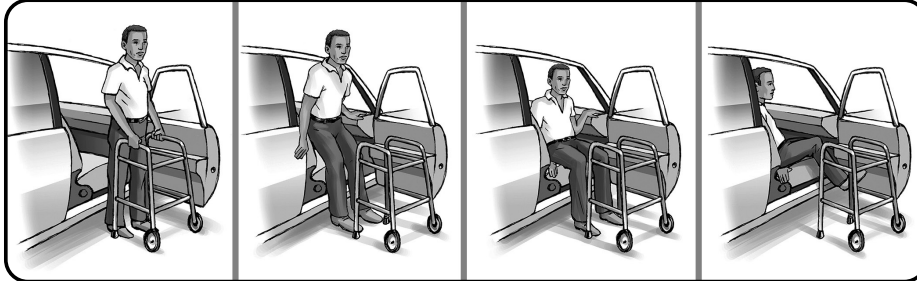
## When can I drive?

- **Do not drive for at least 6 weeks after your surgery.**
- **Do not** drive any time you are taking medications that can affect your thinking, reaction time, and make you tired.
- Check with your primary health care provider, surgeon, car insurance provider, or other member of your health care team if you have any questions about when you can drive again.
- You can ride as a passenger for short distances to and from appointments and other activities. Avoid long drives. **Move your leg often and do foot and ankle pumping exercises while riding in a vehicle.**
- Depending on the height of the vehicle, it may be easier to get in from the curb or from street level. **Avoid vehicles with low seats.**

# What can I expect at home?

## Getting in and out of vehicles

To get into a vehicle:



1. Have your driver or support person fully open the passenger door, move the bottom of the seat back as far as it will go, and recline (lean back) the backrest. **Tip: If it helps, put a cushion on the seat to make it higher. Putting a plastic bag on the seat will help you slide onto the seat more easily.**
2. With the car door fully open, use your walking aid to back up to the vehicle until you feel the car against your leg. Put your right hand on the frame of the vehicle. Put your left hand on the dashboard and slide your operated leg forward. If you cannot reach the dashboard with your left hand easily, roll down the window and hold onto the door frame instead. Then slowly lower yourself onto the seat. You are now sideways on the seat, still facing out of the side of the car.
3. Lean back and slide your bum across the seat.
4. Turn into the vehicle, **keeping your shoulders, knees, and hips in line with each other.** Your driver or support person may help you lift your operated leg into the vehicle, if needed. **Do not cross your legs. Tip: Make sure the seat is pushed back so that your operated leg can clear the doorway.**
5. Buckle your seatbelt and the driver or your support person can close the door for you.

**During the first 6 weeks (recovery phase), only ride in a car if needed.**



# What can I expect at home?

## To get out of a vehicle:

1. Have your driver or support person fully open the door. Unbuckle your seatbelt. Recline the backrest.
2. Depending on the height of the vehicle, it may be easier to get out at the curb or street level. Avoid vehicles with low seats. Turn slowly, putting your feet on the ground and sliding your bum forward to the edge of the seat. Your driver or support person may help you lift your operated leg out of the vehicle, if needed.
3. Put your right hand on the frame of the vehicle. Put your left hand on the dashboard. If you cannot reach the dashboard with your left hand easily, roll down the window and hold onto the door frame instead (support person can steady the door). Stand up, using your arms for support. Remember your weight bearing restrictions (if you have them) for your operated leg.
4. Have your driver put your walking aid in front of you.

## How do I manage pain at home?

It is common for swelling, stiffness, and pain to come and go for several months after surgery. You may also have more pain and swelling as you start new exercises and spend more time on your feet. If pain is preventing you from taking care of yourself, sleeping, and/or exercising, talk to your primary health care provider, OAC team, physiotherapist, or pharmacist. Remember to:

- Take your pain medication as told.
- Pace yourself and take your time doing things, especially in the first few days after surgery. Rest often and get enough sleep.
- Wrap your joint in a towel and apply ice for up to 15 to 20 minutes. Repeat every 2 hours (or once your skin has gone back to normal), as needed.
- **Do not** use heat until your physiotherapist or surgeon says it is OK.
- Raise your leg above the level of your heart while lying down at least a few times each day. This will help with swelling.
- Relax your body. Try breathing exercises and progressive muscle relaxation (tightening and relaxing each part of your body, starting with your toes and working up to your neck).
- Focus on small improvements you make each day. Keep a positive outlook to help you get back to your usual activities sooner. Healing takes time. **If your pain gets worse or you have new pain, call your primary health care provider right away.**

## What can I expect at home?

**Use this Personal Pain Medication Log to keep track of your medication use.**

[illegible]

# What can I expect at home?

## How do I care for my incision?

- While you are in the hospital, your nurse will teach you how to care for your incision at home. Your incision will be closed with stitches, staples, Steri-Strips™, adhesives, or a combination of these.
- **Do not** rub creams or ointments on your incision until it has fully healed.
- **Do not** pick at any dry areas, scabs, or blisters on or around the incision site.
- You may have a special bandage that will stay on until you see your surgeon again.

**It is common to have some redness and drainage from your incision site. Watch for these signs of infection:**

- › Redness around the incision that spreads
- › Green, yellow, or smelly pus coming from the incision site. It is common for fluids to drain for 3 to 5 days after surgery. Then, this should stop and your incision should stay dry.
- › More pain or swelling around the incision and surrounding area
- › Fever (temperature above 38 °C or 100.4 °F). Signs of a fever may include chills, sweating, and headaches.

**If you have any of the symptoms listed above, call your OAC (see front cover), or your surgeon's office right away.** If you are not able to reach your surgeon, call your primary health care provider, or go to the nearest Emergency Department right away.

## When can I have a shower or bath?

- Ask your health care team at discharge when you can take a shower, bath, or sponge bath after your surgery. **Write the instructions here so you remember:**

- 
- 
- Use your recommended tub equipment and/or walk-in shower equipment (see page 15) to help you get in and out of the shower.

# What can I expect at home?

## Work

- When you can go back to work depends on what type of job you have, as well as the kind of work you do. **Most people take 8 to 12 weeks (2 to 3 months) off work after knee replacement surgery.** You may need to change how you work and how your work space is set up to be able to follow your **Knee Guidelines** (see page 5). Ask your surgeon when you can go back to work and if there are any guidelines you need to follow.

## Travel

- **Do not** travel by air until you have met with your surgeon after your surgery. Your surgeon will tell you when this will be.
- When you are ready, plan ahead to give yourself extra time to take regular breaks to walk and stretch.
- For flights longer than 1½ hours (90 minutes), try to get an aisle seat so that you can get up and walk around during the flight. When you are on the plane, do foot and ankle pumping exercises every 30 minutes to keep your blood moving and help lower the risk of blood clots. You may be told to wear compression stockings to lower your risk.

## Staying active (sports and leisure)

- When you can go back to sports and leisure activities depends on your physical condition and the intensity of the activity. High-impact activities (like running, jumping) may not be recommended after your surgery. Low-impact activities (like walking, biking, dancing, or swimming) are generally OK. Ask your health care team if you have any questions.

## Sex

- Many people who had stiffness and pain during sex before surgery find that they have less pain and more mobility after surgery.
- **Wait 6 to 8 weeks after surgery before having sex. This gives your incision and muscles time to heal properly.**
- When choosing a position, let pain be your guide. Pick positions that feel the most comfortable and pain-free. Remember **Knee Guidelines** (see page 5), if you have them. If they do not work with your usual positions, try different positions until you are fully recovered.

# Hospital information (DGH and HI)

Locations	
Dartmouth General Hospital	Halifax Infirmary
325 Pleasant Street Dartmouth, NS B2Y 4G8 Switchboard: 902-465-8300	1796 Summer Street Halifax, NS B3H 3A6 Switchboard: 902-473-2700

Parking	
Dartmouth General	Halifax Infirmary
<ul style="list-style-type: none"> <li>You can enter the parking lot on Acadia Street.</li> <li><b>Hospital parking is free.</b></li> </ul>	<ul style="list-style-type: none"> <li>Halifax Infirmary: 1797 Summer Street</li> <li>Veterans' Memorial Building: 5955 Veterans Memorial Lane</li> <li>Museum of Natural History: 1747 Summer Street</li> </ul> <p><b>Note: Hospital parking is free, but you must pay a fee at the museum parking lot.</b></p>

On-site food	
Dartmouth General	Halifax Infirmary
<ul style="list-style-type: none"> <li>Cafeteria (basement level) <ul style="list-style-type: none"> <li>› Under renovations</li> </ul> </li> <li>The Corner Shoppe (1<sup>st</sup> floor) has snacks and cold drinks. <ul style="list-style-type: none"> <li>› Hours: 9:30 a.m. to 5 p.m.</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>Cafeteria (2<sup>nd</sup> floor) <ul style="list-style-type: none"> <li>› Hours: 7:30 a.m. to 11 p.m.</li> </ul> </li> <li>Drugstore (1<sup>st</sup> floor, Summer Street entrance)</li> <li>Vending machines are located on most floors.</li> </ul>

# Hospital information (DGH and HI)

Patient accommodations	
Dartmouth General	Halifax Infirmary
<ul style="list-style-type: none"><li>• This hospital offers 2 types of accommodations for patients:<ul style="list-style-type: none"><li>› semi-private: 2 beds per room</li><li>› private: 1 bed per room</li></ul></li></ul>	<ul style="list-style-type: none"><li>• This hospital offers 3 types of accommodations for patients:<ul style="list-style-type: none"><li>› standard ward: 3 beds per room</li><li>› semi-private: 2 beds per room</li><li>› private: 1 bed per room</li></ul></li></ul>
<b>Note:</b> When you register for your surgery, you may request a private or semi-private room. It is not always possible to give you the room you ask for. We will try to transfer you to your preferred room as soon as it becomes available.	

## Family and friends accommodations

- Hotels in the community may offer discounted rates for patients and their families. Please call these accommodations directly to ask about discounted rates.

## Equipment

- You must bring your 2-wheeled walker and other equipment (see page 1) to the hospital as you will need it to get up on the day of your surgery. Your coach, family member, or friend can hold onto this equipment for you until you need it.

## Exercise therapy

- Group and/or individual therapy is in the morning and afternoon.

# Hospital information (DGH and HI)

## Visiting hours

- Patients and their loved ones and/or families are respected as members of the health care team. You have an important role in helping to make sure there is quality of care and safety.
- Family and/or primary support persons are welcome 24 hours a day, to make sure you have the support you need, when you need it, from the people who are most important to you.
- We ask that you name up to 2 people who will support you. We also ask that you let our team know how you would like your support persons to be involved in your care and decision-making.
- Please talk to your health care team about your family and/or primary support persons.
- Visitor guidelines may change at times for different reasons. Our health care team will tell you if these guidelines change.

## Community supports

- Find information on community resources in your area:
  - › Phone: 211
  - › <http://ns.211.ca>
- Continuing Care
  - › Phone (toll-free): 1-800-225-7225

## Getting equipment

- Please call 211, or check the phone book or websites for more information.
- Home health care stores and pharmacies often carry equipment for loan or purchase. You can contact them directly to ask about prices and availability.  
**Note:** A prescription from a health care provider may be needed in order to submit these costs to your private insurance provider (if you have one).

## Canadian Red Cross\* – Dartmouth

133 Troop Avenue

Dartmouth, NS

B3B 2A7

Weekdays: 8:30 a.m. to 4:30 p.m.

- › Phone: 902-423-3680
- › Fax: 902-420-9589

\*Referral from a health care provider is needed.

## Contact information

Dr. M. Dunbar	902-473-7337
Dr. M. Gross	902-473-6811
Dr. R. Hurley	902-293-9015
Dr. J. Leighton	902-797-0777
Dr. R. Leighton	902-473-4035
Dr. D. O'Brien	902-405-3200
Dr. B. O'Neill	902-797-0999
Dr. G. Richardson	902-473-1641
Dr. D. Smith	902-797-0777
Dr. J. Sniderman	902-797-0999
Dr. N. Urquhart	902-477-6002
Dr. D. Wilson	902-473-1104

Halifax Orthopedic Assessment Clinic (Bayer's Lake Community Outpatient Centre)	902-473-1501
Dartmouth Orthopedic Assessment Clinic (Queen's Square)	902-460-3638
Dartmouth General Hospital Surgical Floor (3 East)	902-460-4127
Halifax Infirmary Inpatient Hip & Knee Arthroplasty (Unit 8.3)	902-473-4434
Camp Hill Veterans' Memorial Building Physiotherapy (outpatients)	902-473-6308
Cobequid Community Health Centre Physiotherapy (outpatients)	902-869-6116
Dartmouth General Hospital Physiotherapy (outpatients)	902-465-8303
Eastern Memorial Hospital Physiotherapy (outpatients)	902-366-2794
Halifax Infirmary Physiotherapy (outpatients)	902-473-6308
Hants Community Hospital Physiotherapy (outpatients)	902-792-2071
Musquodoboit Valley Memorial Hospital Physiotherapy (outpatients)	902-384-4100
Twin Oaks Memorial Hospital Physiotherapy (outpatients)	902-889-4113



# Exercises

Daily exercises will help you recover faster and feel better so you can get back to your usual activities. Follow your **Knee Guidelines (page 5)**.

- **Do not** do any exercise that causes pain.
- Do each exercise 10 times, 3 times a day to start. Your physiotherapist will tell you how to do progression (make harder) exercises. Do these exercises before and after surgery.
- **Do not hold your breath during these exercises.**

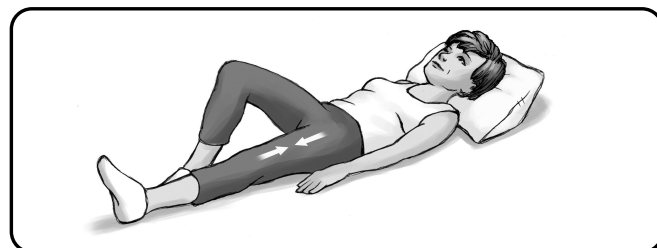
## Foot and ankle pumping

1. Relax your legs.
2. Gently pull your toes towards the ceiling.
3. Then gently point your toes towards the bottom of the bed.
4. Do this exercise for 1 to 2 minutes every hour while you are awake.



## Quad sets

1. Lie on your back with your non-operated leg bent.
2. Press the back of your knee of your operated leg into the bed by tightening the muscles on the front of your thigh.
3. Hold for 5 seconds.
4. Relax.



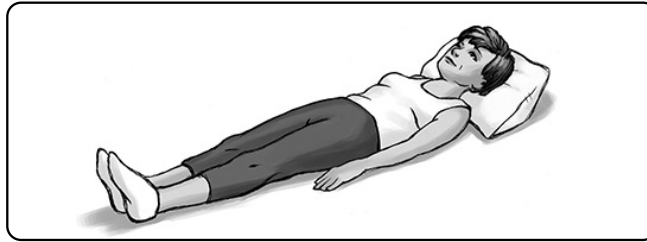
**Note:** Look and feel for the muscle above your knee to contract (squeeze together). Your heel should come up slightly off the bed.

# Exercises

## Gluteal sets

1. Squeeze your glutes (bum muscles) together.
2. Hold for 5 seconds.
3. Relax.

**Note:** Put your hands on your right and left gluteal (bum) area and feel for equal muscle contractions.



## Hip and knee flexion heel slides

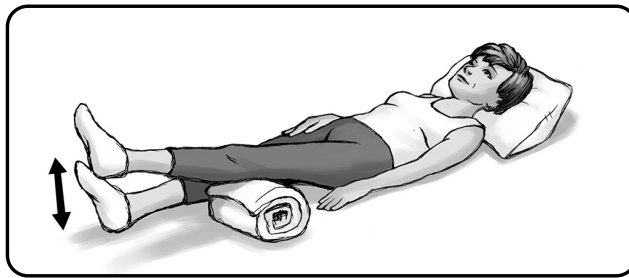
1. Lie on your back with your legs straight.
2. Bend the knee of your operated leg and slide your heel up towards your bum. You may use a strap around your foot to help.
3. Straighten your leg and relax.



# Exercises

## Short arc quads

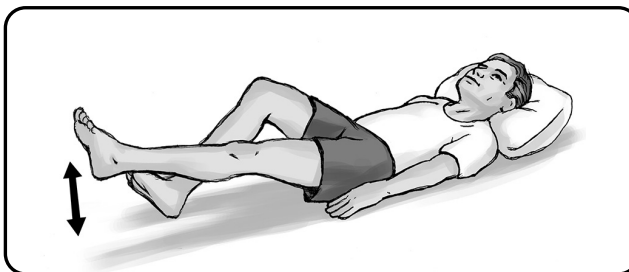
1. Lie on your back with your legs straight.
2. Put a rolled towel under the knee of your operated leg.
3. Lift the foot of your operated leg, straightening your knee as far as you can.  
**Do not** lift your thigh off of the rolled towel.
4. Bend your knee, lower your foot, and relax.
5. Remove the rolled towel from under your leg when you are done.



## Straight leg raise

1. Lie on your back with your non-operated knee bent and foot flat.
2. Tighten quad on your operated leg and lift your leg 12 inches from the floor.
3. Keep knee straight and toes pointed toward your head.

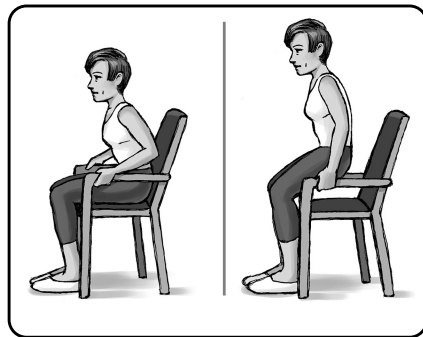
**Note:** You can add a small ankle weight to your leg to improve your strength before surgery, if you are able.



# Exercises

## Armchair pushups

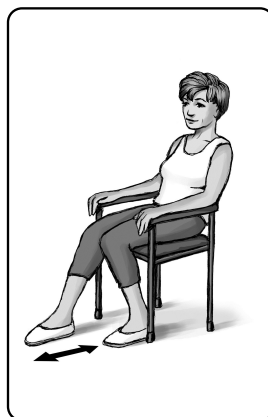
1. Sit in a stable chair with armrests.
2. Keep your feet flat on the floor, then slide to the front of the seat.
3. Hold onto the armrests.
4. Straighten your arms, lifting your bum up from the seat as far as you can. Use your legs to help, if needed. Remember your weight-bearing restrictions for your operated leg. **Do not** hold your breath or strain too hard.
5. Slowly work towards using only your arms and your non-operated leg.
6. Bend your arms and lower your bum back onto the chair. Relax.



## Seated knee flexion

1. Sitting in a straight-back chair, bend your operated leg as far as you can under the chair (you can use your opposite foot to help).
2. When you have bent your operated leg as far as you can, plant that foot and slide your hips forward bending that knee even more.
3. Hold for 20 to 30 seconds.

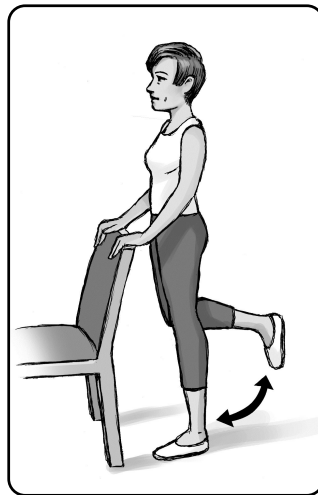
**Note:** Each time, bend until a stretch is felt and then a little more if you can. Use your non-operated leg to press down to increase the stretch in your operated leg. Keep your hips flat on the chair.



# Exercises

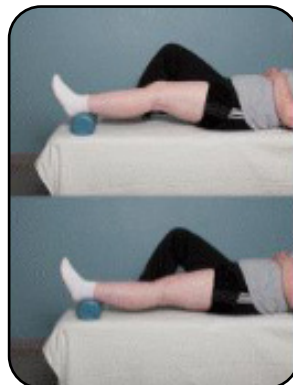
## Knee flexion (knee bending)

1. Hold onto the back of a chair or a countertop.
2. Stand up straight.
3. Bend the knee of your operated leg. Bring your heel up to your bum so you are standing on your non-operated leg. **Do not** lean forward or bend at the waist.
4. You will feel the muscles on the back of your thigh working, and the muscles on the front of your thigh stretching.
5. Relax.



## Knee extension (back of knee stretch) while lying down

1. Lie on your back with your non-operated knee bent and foot flat.
2. Put a large juice can rolled in a towel under the heel of your operated leg.
3. Push your knee down into the bed.
4. Hold for 10 to 20 seconds.
5. Relax.



# Exercises

## Knee extension (back of knee stretch) while sitting

1. Sit in a straight-back chair and prop your foot on a chair or a stool. If it is more comfortable, you may add a rolled towel under your ankle.
2. Gently push your knee down by tightening your muscles on the top of your thigh.
3. Hold for 10 to 20 seconds.
4. Relax.

**Important: Do not** add any weight to your knee unless your surgeon or therapist tells you to.



## Seated knee extension (straightening your knee)

1. Sit back in a chair. **Do not** lean forward.
2. Straighten your leg as far as you can by kicking it out.
3. Hold for 5 seconds then lower slowly. Then bring your heel as far back under the chair as far as you can.
4. Relax and repeat 10 times.



# Exercises

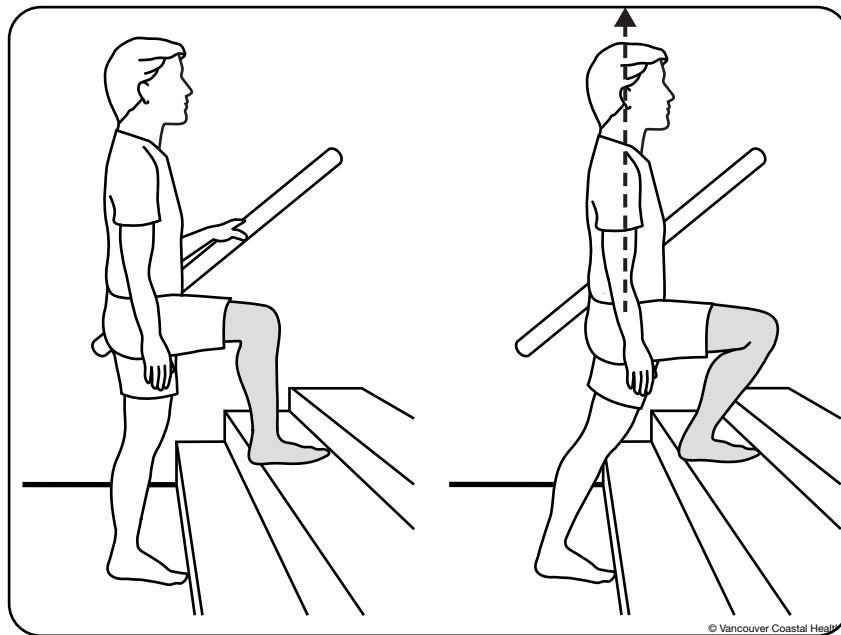
Your physiotherapist may tell you to do the following exercises in the weeks after your surgery. Check with them to see if you are ready to do them.

## ☐ Knee bend on a step

1. Put your operated leg on the second step.
2. Hold onto the railing for support.
3. Lean forward through your hip to bend your knee until you feel a stretch in the front of your knee. Keep good posture.
4. Hold for 5 to 10 seconds.
5. Repeat 5 to 10 times.

### **Progression:**

- Move the foot of your operated leg to the next step as you are able.



# Exercises

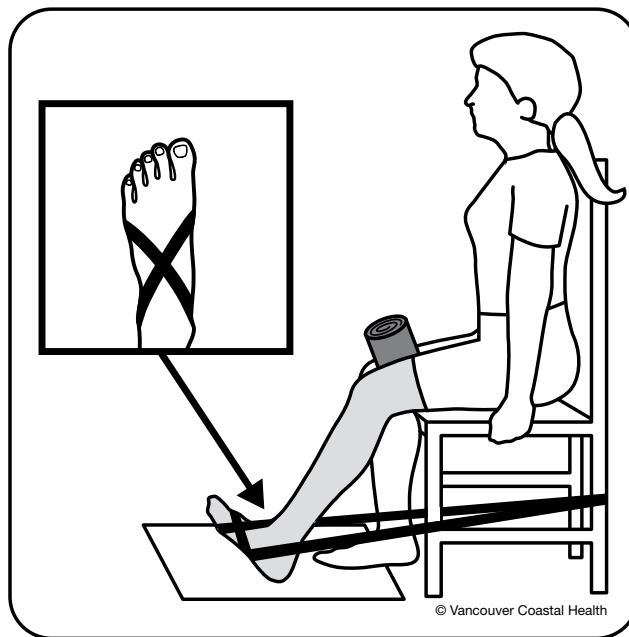
Your physiotherapist may tell you to do the following exercises in the weeks after your surgery. Check with them to see if you are ready to do them.

## ☐ Resisted knee straightening

1. Attach a resistance band to a secure object and to the ankle of your operated leg in a figure 8.
2. Sit tall on a chair and squeeze a rolled towel between your thighs to straighten your knee.
3. Slowly relax your knee into a bent position until you feel a stretch on the front of your knee. Hold 5 to 10 seconds. Repeat 10 times.
4. Do this 3 times a week.

### Progression:

- Use stronger resistance bands.





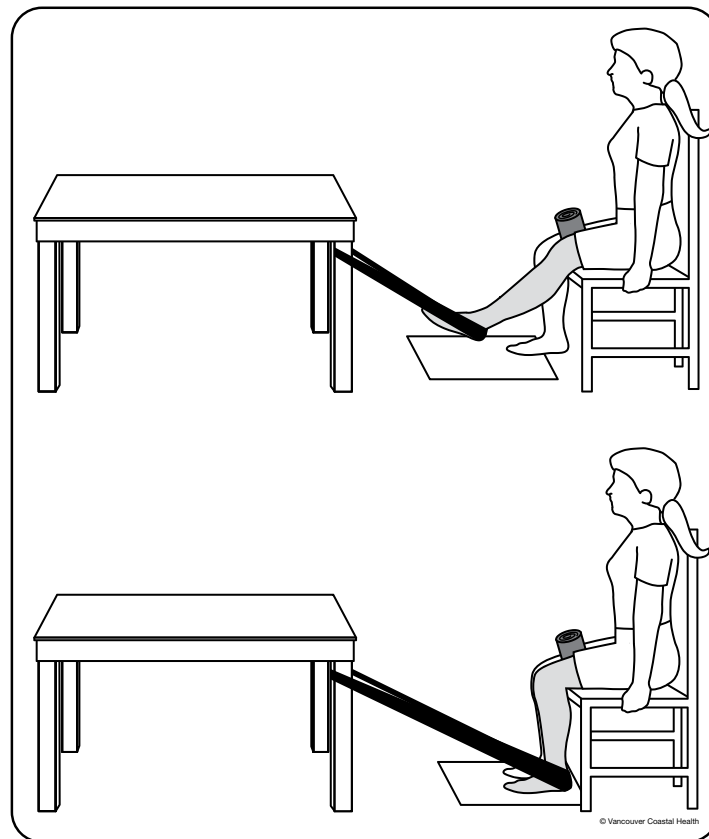
# Exercises

## ❑ Resisted knee bending

1. Attach a resistance band to a secure object and around the ankle of your operated leg.
2. Sit tall on a chair and squeeze a rolled towel between your thighs to bend your knee as much as you can.
3. Keep squeezing as you slowly relax the band back to the starting position.
4. Pull your knee cap towards you to straighten your knee with the help of the band relaxing. Hold 5 to 10 seconds, repeat 10 times.
5. Do this 3 times a week.

### Progression:

- Use stronger resistance bands.



# Exercises

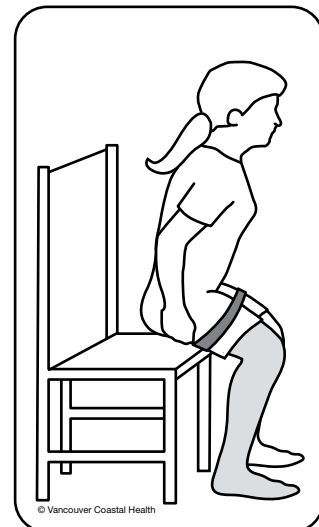
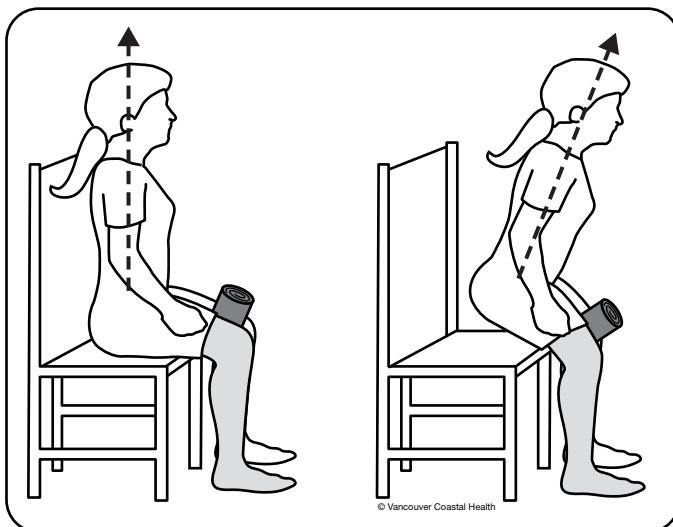
Your physiotherapist may tell you to do the following exercises in the weeks after your surgery. Check with them to see if you are ready to do them.

## □ Sit to stand

1. Sit on the edge of a higher chair, squeezing a large rolled towel between your knees.
2. Bend forward with your back straight, bringing your shoulders over your knees.
3. Press your feet into the floor and use your lower bum muscles to lift you up to standing. **Do not** use your arms.
4. Bend your hips and knees to slowly sit back down on the chair.
5. If you find your knees tend to knock together, tie a resistance band around your upper thighs and press your thighs against the band to keep them hip-width apart. Repeat 10 times.
6. Do this 3 times a week.

### Progression:

- Use a lower chair.
- Stagger your legs by putting one leg back and the other leg forward to make the back leg work harder. Keep both of your knees and feet pointing forward. Repeat with the other leg in front.



# Exercises

## Progressive balance exercises

Stand facing a counter or table with a chair behind you for safety.

### While standing:

1. Balance with your feet side by side. Hold for 45 seconds.
2. Balance with 1 foot in front of the other, leaving space between them. Hold for 45 seconds.
3. Balance with 1 foot directly in front of the other. Hold for 45 seconds.
4. Standing on your operated leg, and lift your non-operated leg off the floor. Hold for 45 seconds.

Do this exercise 3 times a day.



1. Balance with feet side by side



2. Balance with 1 foot in front, with space



3. Balance with 1 foot directly in front



4. Stand on operated leg, lifting other leg

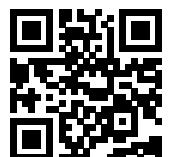
## Physiotherapy goals after surgery:

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### Canadian Society of Exercise Physiology

24-Hour Movement Guidelines:

› <https://csepguidelines.ca/>



# Resources

## Nova Scotia Community Health Teams

- › [www.nshealth.ca/clinics-programs-and-services/community-health-teams](http://www.nshealth.ca/clinics-programs-and-services/community-health-teams)



## Canadian Orthopedic Foundation

Get Moving – Maximizing Your Activity After a Hip or Knee Replacement:

- › [https://movepainfree.org/wp-content/uploads/Get-Moving-Booklet\\_2015-EN.pdf](https://movepainfree.org/wp-content/uploads/Get-Moving-Booklet_2015-EN.pdf)



## Mi'kmaw Indigenous Patient Navigator (MIPN)

- For Mi'kmaw and Indigenous patients, please contact your community health centre before you go to the hospital.
- You can also contact both the Nova Scotia Health Mi'kmaw Indigenous Patient Navigators (see first link below) and/or Tajiikeimik's Nuji-Apoqnmuet team (see second link below) of patient navigators for support.
  - › <https://www.nshealth.ca/clinics-programs-and-services/mikmaw-indigenous-patient-navigator-mipn>
  - › <https://mhwns.ca/programs/nuji-apoqnmuet-team/>



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Learn more: <https://library.nshealth.ca/patient-education-resources>