RÉSEAU DE SANTÉ Horizon HEALTH NETWORK

PATIENT GUIDE

A Guide for Patients

Having Knee Replacement Surgery

Fredericton and Upper River Valley





Please bring this booklet to each hospital visit, including your hospital stay.
This booklet is available in French upon request.
Ce document est disponible en français sur demande.

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RÉSEAU DE SANTÉ Horizon HEALTH NETWORK

MISSION

Helping People Be Healthy.

VISION

Exceptional Care.
Every Person. Every Day.

VALUES

We show empathy, compassion and respect.

We strive for excellence.

We are all leaders, yet work as a team.

We act with integrity and are accountable.

Notes

Notes

Welcome to the Dr. Everett Chalmers Regional Hospital (DECRH)

On behalf of the staff from the Orthopaedic Department (4NE), we would like to welcome you. Your hospital stay is planned for three days. This booklet contains information about what you can do before, during, and after surgery so that your knee replacement is as successful as possible. Please review this information with your spouse, family, or other caregivers. **It is important to bring this booklet to the hospital with you so you may refer to it during your stay.**

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APPENDIX 7

Guidelines for Better Sleep

Sleeping well is a habit that you can learn! Small changes can have big effects. Start today by following these rules:

Take care of your body

- Limit drinks containing caffeine (tea, coffee, soda, energy drinks, hot chocolate) & do not drink caffeine or alcohol after 4 o'clock.
- Do not eat a big or spicy meal late in the evening (less than 3 hours before bedtime) and do not go to bed hungry.

Physical exercise, such as a brisk walk, in the late afternoon can help to make your body tired and help you to sleep. Try to do some exercise every day when you are able. It is best not to exercise in the 3-4 hours before bedtime.

Sleep only at night-time and do not have day-time naps. Naps keep the problem going by making it harder for you to get to sleep the next night.

Having a regular bedtime routine teaches your body when it's time to go to sleep. Our bodies need a signal that it's time to wind down. This might include:

- Having a soothing drink like chamomile tea or a milky drink
- Taking a bath or a shower, or a routine of washing your face and brushing your teeth
- Reading a comforting book and do not work on something up until bedtime.
- Go to bed at same time each night
- Do a relaxed breathing exercise (one hand on stomach the other on your chest, deliberately slow breathing, breathe deeply in your stomach instead of high in your chest)
- Try and wake up the same time every day, even if this is tiring

Set aside some 'worry time' each day to write down any issues that are bothering or concerning you, then deciding the to leave those worries behind until tomorrow (make sure to do this *at least* one hour before bedtime)

Setting the conditions for sleep

- Reduce Noise
- Make sure the bedroom is completely dark (blackout curtains are cheap and effective)
- Make sure the bedroom is the right temperature (not too hot, or too cold).

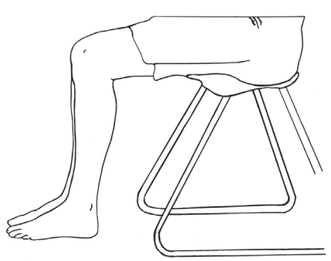
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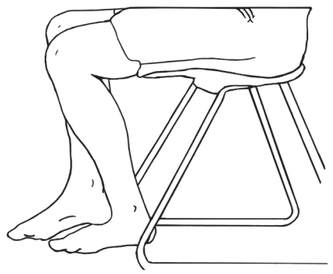
Bed is for sleeping, so if you cannot sleep after 30 minutes, get up and do another activity elsewhere such as reading or listening to music (try and avoid TV as it can wake you up). After 15 minutes return to bed and try to sleep again. If you still can't sleep after 30 minutes get up again. Repeat this routine as many times as necessary.

4. Assisted flexion

Sit up straight in a chair and look directly ahead of you. Bend your knee as far as you can by sliding your foot backwards. Cross your other leg over your ankle and use it to help bend your knee further. Maintain the position and relax.

NOTE: Do not slide forward nor allow your buttocks to lift up off the chair when you bend your knee.





5. Plantar flexion

Hold onto the back of a steady chair. Stand on your toes.





Avoid any sudden jarring, twisting or uncontrolled bending of the knee.

PLANNING FOR YOUR SURGERY

Research shows that people manage their surgery and recovery better when they are prepared for their surgery. Remember, you cannot drive after your surgery until your surgeon says you can. This is for legal and insurance purposes. Ask your surgeon at your return visit when you can resume driving.

See Your Family Physician/Specialist

To make sure that your surgery is not postponed because of any untreated or unstable medical conditions, it is important to see your family physician a few months before surgery. This is important to make sure your health is stable. Your family physician can treat any medical conditions such as diabetes, high blood pressure or anemia before your surgery. Your dentist is an important part of your health-care team. Please make sure any tooth or gum problems are treated before your surgery.

Illness before your Surgery

If you develop cold, flu or gastric symptoms (such as diarrhea) before your surgery, call your surgeon's office. If these symptoms occur on the weekend prior to a Monday surgery, please call the hospital at (506)452-5400 and ask for Admitting.

Nutrition

Healthy eating can help you recover after surgery. Talk about nutrition and healthy food choices with a Registered Dietitian and your doctor. A well-balanced diet, as recommended by "Eating Well with Canada's Food Guide" will help you speed up healing and recovery. Extra body weight can also affect your recovery by reducing your exercise tolerance. Please see Appendix 4 for information on iron and protein.

Smoking Cessation

People who smoke are at a higher risk of developing complications. Smoking slows the healing process, affects your lungs and circulation. You may want to talk about quitting smoking. Smoking cessation "Quit Kits" are available.

Select a Coach

It is important for you to arrange a family member or a friend as a "coach". This person will help you before, during, and after your hospital stay. Your coach should:

- Attend the Preoperative Orthopedic Education Class with you.
- Help you plan for your admission to hospital and prepare for your discharge home.
- Be a "second set of ears" to help remember instructions.
- Come with you to the hospital on the day of surgery and be available when you go home to help you settle in and remind you of instructions.

Preoperative Orthopedic Education Class

You will receive notification from Central Scheduling, with an appointment to attend the education class. **If you are unable to attend, please contact us at the number provided from Central Scheduling for an alternate appointment.**

This class will help you prepare for your surgery and recovery, including:

- Maintaining or improving your strength and fitness before surgery.
- Reviewing exercises and activities you will be doing immediately after surgery
- Meeting an Occupational Therapist to determine aids/equipment needs
- Managing your everyday activities and planning for your discharge home

Exercises

Research has shown that the healthier you are before the surgery, the better you will do after your surgery. Get a head start by exercising now. We realize many of you have restricted movement and that is why you need the surgery. **If you have not been active, speak to your physician before starting to exercise.** Endurance activities are good for your heart, lungs, circulation and muscles. Some suggestions are walking, swimming, water aerobics or a stationary bike.

AVOID: exercises that stress the joints such as stair master, stair climbing, jogging.

General Physical Fitness Guidelines

- Start slowly. Your goal is to be physically active every day.
- Begin with a few minutes and gradually progress until you can exercise at least three times a week for 20-30 minutes.
- No matter which activity you choose, you should be able to carry on a conversation or talk comfortably while exercising without increased shortness of breath.
- Use your pain medications before exercise.

How to Do Exercises

This section explains the knee exercises you will be doing after your surgery. It is important that you practice them **now** to help strengthen your muscles and maintain your knee joint movement before surgery.

- The following exercises should be done for both legs to help with your recovery.
- Do them twice a day and gradually increase from five to 10 repetitions.
- Do all the exercises slowly and with control.
- If pain is increased for more than two hours after the exercises, you are doing too much.
    - Take a rest for one to two days.
    - Start over with fewer repetitions and gradually increase to 10 repetitions.

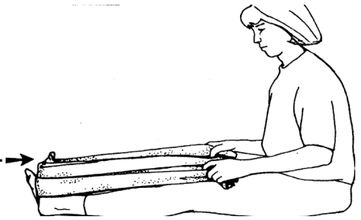
APPENDIX 6

Additional Exercises

The following exercises may be reviewed with you by a Physiotherapist, as appropriate. Do not do these exercises until you are instructed to do so.

1. Calf stretch

Sit with your operated knee straight and a towel looped around your foot. Gently pull on the towel until a comfortable stretch is felt in your calf. Hold for 10 seconds. Relax. Repeat three times.



2. Knee flexion and extension

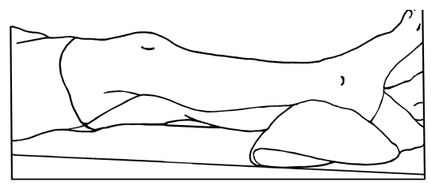
Sitting on a firm surface, slowly bend your operated knee by sliding your foot back along the floor. You should feel a stretch over the top of your knee. Hold for five seconds. Relax. Straighten knee by lifting your foot off the floor. Hold for five seconds. Relax.



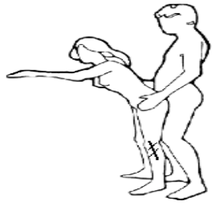
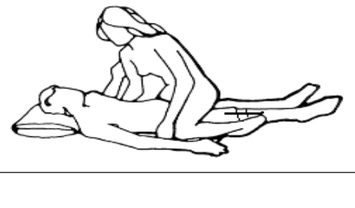
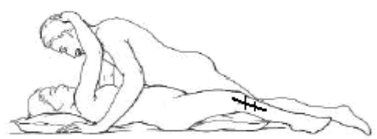


3. Active range of motion extension

Lie on your back with a towel rolled under your ankle. Push your knee down towards the bed so as to straighten it as much as possible. Relax your knee and repeat.



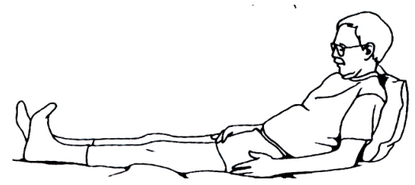
The following pictures are safe methods for **KNEE REPLACEMENT**

For male patient	*For female patient*
	
	This position is **not recommended** for female patients as the weight of the male's leg causes too much pressure onto the knee joint.
	
	
This position is **not recommended** for male patients as kneeling causes too much pressure onto the knee joint.	
	

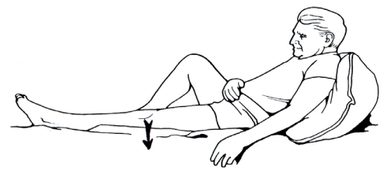
Remember, the first days after surgery will be the most challenging. A positive attitude, practice, proper pain management and rest periods will get you through. **You will not damage your replacement or incision by following your therapist's instructions**. Doing these exercises now will help your recovery after surgery.

The following exercises are done while sitting on a firm surface.

1. **Ankle Pumping**
   This helps to circulate the blood in your legs while you are less active. Pull your toes up towards you bending only at the ankle. Then, push your toes away from you. Pump so that you can feel your calf muscle tightening and relaxing.



2. **Quads Sets**
   With your operated knee out straight, pull your toes up toward you and tighten the muscle on the front of your thigh by pressing the back of your knee down into the bed. Hold for 5 seconds. Relax. Repeat.



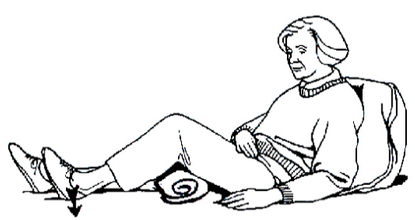
3. **Bending Your Knee**
   Gently bend your operated knee sliding your foot up along the bed. Pull until you feel a stretch over the top of your knee. Hold for 5 seconds then lower your leg. Relax. Repeat.



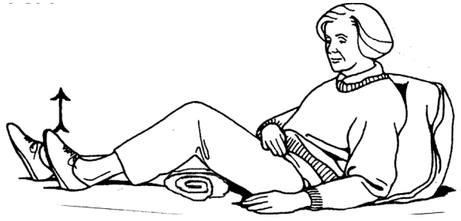
4. **To Assist Bending Your Knee**
   Sit with towel looped around the foot of your operated knee. Gently pull on the towel to assist with sliding your foot up along the bed. Pull until you feel a stretch over the top of your knee. Hold for five seconds then lower leg. Relax. Repeat.



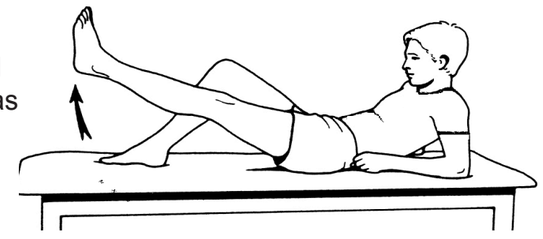
5. **Hamstring Sets**
   Use a rolled up towel or pillow under your operated knee. With your operated knee slightly bent, pull your heel into the bed. You should feel the muscles in the back of our thigh tighten. Hold for five seconds. Relax. Repeat. Note: Your bottom should not lift and no knee movement should occur during this exercise.



6. **Quads Over the Roll**
Place a rolled up towel or pillow under your operated knee. Pull your toes up toward you and lift your heel off the bed to straighten your knee. Keep the back of your leg resting on the rolled towel. Hold for five seconds then slowly lower your heel. Relax. Repeat.



7. **Straight Leg Raises**
Bend your non-operated knee and place your foot flat on the bed. Lift your operated leg up several inches, keeping your knee as straight as possible. Hold for five seconds then lower your leg. Relax. Repeat.



8. **Hip Abduction**
Slide your operated leg out to the side six inches or 15 cm. Do not lift your leg up. Keep your toes pointed upward. Return your leg to the starting position. Relax. Repeat. If you are having difficulty, put a sock on your foot and a plastic bag under your leg and try again.



Exercises one to eight will be reviewed with you by a Physiotherapist while you are in the hospital.

- Take things slowly, be honest about your feelings, and be sure to mention any discomfort or new pain right away to your partner.
- When lying on your side, keep both legs separated with pillows between them.
- If a position causes discomfort, don't do it; try another one or trade for back massages and look forward to more progress next time.
- Avoid putting too much pressure or weight on a new joint, your partner should help you stay within a safe range of motion.
- Control the amount and speed of movement during sexual intercourse.
- Take the same care getting out of a position as you did getting into it.

Movement precautions

- Avoid kneeling for prolonged periods on your operated knee.
- Comfort and range of motion may be your biggest issues.
- Follow weight bearing status.

We hope that by reading this information some of your concerns and questions dealing with sexual activity after hip or knee replacement surgery will be answered. If you still have questions, please feel free to ask your surgeon, occupational therapist, or nurse.

APPENDIX 5

Intimacy after a Knee Replacement: Practical Guide to Sexual Intercourse

Guidelines to resuming sex:

- Time limit for resuming sexual intercourse following a knee or hip replacement surgery is variable, often about four to six weeks. This time allows for the incision and muscles around one's joint to heal.
- Abstinence should be practiced until the pain from the surgical joint has resolved.
- Avoid forcing or straining your knee.
- Let your partner assume the more active role.

Common issues related to sexual intercourse after surgery

Fears of the unknown:
You may not express fears regarding pain, sexual performance, possible injury, or disruption of rehabilitation; your partner may also be afraid of hurting you.

Changes of body image
Minor and major appearance changes occur after joint replacement surgery.

Dependency and depression:
Depression can negatively affect sexual image; you may feel you are a burden and not an equal partner in your relationship.

Sexual desire
Medication side effects, fatigue, lack of activity, and negative feelings can add to the sense of fatigue and reduce sexual desire.

These fears and issues are normal; discuss such issues with your partner, be honest about your feelings and plan. Learn which positions are best for you. Share this handout, read it together or separately. What matters most is that your emotional and sexual needs are met.

Planning for more comfortable sex

When you're both ready to return to sexual intercourse, give yourselves plenty of time. Also do your best to stay relaxed and to keep a sense of humor.

- Plan for a time of day you feel your best.
- Pace activities during the day to help avoid extreme fatigue.
- Plan to take a dose of mild pain relief medication so that its effect will occur during sexual intercourse, usually 20-30 minutes before. Avoid taking medication strong enough to mask warning pain.
- Practice a few easy stretches within a safe range of motion to relax your joints.
- Take a warm shower before sex to relax.
- Have pillows and rolled towels nearby to use as body support and for comfort.

Prepare Your Home Before Surgery

The following is a list of things you can do to make life easier and safer for you when you return home. Planning and preparing before leads to a successful surgical outcome.

Throughout your home

- Move furniture to make a clear path to use your walker or crutches.
- Remove scatter mats and place items you need every day within arm's reach.
- Make sure you have adequate lighting and clear all electrical cords
- Use a firm chair that has arm rests. You may need "blocks" to help raise furniture.

In the kitchen

- Cook and freeze meals ahead of time or consider "Meals on Wheels".
- Place items you need everyday at arm level between your waist and shoulder.
- A reacher can be used to reach items that are too low.

In the bathroom

- Place a non-skid bath mat in your tub or shower.
- Equipment such as a raised toilet seat, bath tub bench or seat, grab bars in the bath tub, and a long-handled bath sponge may be helpful.
- Consider using a commode chair with a pail if you do not have a toilet on the main floor. Arrange for someone to empty the pail for you.
- If you stand to shower, place toiletries in a shower caddy or plastic grocery bag and hang it from the showerhead to keep them in easy reach. If you are going to use a bath seat or tub transfer bench, keep toiletries on a shelf or in a mesh or plastic bag attached to your grab rail or the arm of your bath seat.

In the bedroom

- If your bed is lower than the back of your knees, you may need to raise it with blocks, or another mattress.
- Consider a bedside lamp and nightlight on the path from the bed to the bathroom.
- If there are a lot of stairs to go up to your bedroom, consider moving your bed to the main floor.

Miscellaneous

- If you have pets, consider arranging for others to help care for your pet including walking your pet. Consider moving food dishes and litter boxes to higher surfaces.
- In the laundry room, move your detergent and laundry baskets to waist height level. Use a knapsack to carry clothes to and from the laundry room.
- Ask your family and friends to help you after your surgery.
- You will need help with laundry, groceries, house cleaning. You are to avoid sweeping, mopping and using the vacuum cleaner. Your doctor will tell you when it is okay to sweep, mop and vacuum.

- You may need to stay with a family member or friend or arrange convalescent care if you live alone.

Before your surgery, you should obtain, set-up, and practice using equipment. Some items can be rented, purchased or borrowed. This will be determined at the Preoperative Orthopedic Education Class.

Walking Aids: Walker, Crutches and Cane

After surgery a Physiotherapist will help you decide which walking aids you will use at home. Your gait aids need to be the right height for you. In standing, the **handgrips** should be adjusted to the **level of your wrist** when your arm is at your side. With **crutches,** you first need to adjust the height so that you can fit **two to three fingers** between the **top of the crutch** and **your armpit**.

Wrist Level



Safety Tips

- Check rubber tips on your equipment and if worn smooth replace them.
- Remove any debris from the rubber tips.
- Add ice picks to crutches and canes during the winter season.
- Make sure any screws or adjusted pieces are secure and working properly.
- You may feel more comfortable having someone with you when walking or on stairs when you first get home.

APPENDIX 4

Tips to Prevent Constipation

Drink plenty of fluids. Maintaining adequate fluid intake will reduce the risk of dehydration and constipation which is often associated with immobilization and pain medication intake.

You should drink six to eight cups (1.5-2 L) of non-caffeinated fluids every day. Some examples include: Decaffeinated coffee/tea, soup, milk, water, unsweetened fruit juice. Caffeine intake from coffee, tea and colas should be limited to less than 4 cups per day.

Include adequate fibre in your diet. Aim for 25-35 grams of fibre every day. Increasing fibre in your diet must be done slowly. You may notice extra gas when you first increase fibre. This is often temporary. Gradually adding high fibre foods can help reduce gas. Fibre can be found in Vegetables and Fruit, Grain Products and Meat Alternatives.

For example:

Food Choice	Number of grams of fibre
1 medium orange	3.1
1 medium baked potato with skin	4.6
1 carrot bran muffin (low fat)	4.5
1 cup of Raisin Bran	8.3
2 Tbsp. Bran Buds cereal with Psyllium*	4.3
1 peanut butter sandwich on whole wheat bread	6.0
1 cup of baked beans	14
22 almonds	3.3

- **Add to cereals, soups or yogurt.** Read the food labels to determine the fibre content of foods purchased.
- **Eat a variety of foods** from the four food groups in Canada's Food Guide (vegetables and fruit, grain products, milk and alternatives, meat and alternates). Vegetable and fruit intake may be beneficial to bone health. It is encouraged to consume at least five to10 servings a day.
- **Establish a regular bowel routine.** Try to have a bowel movement after eating breakfast or as in your normal routine

For more information on food and nutrition visit www.dietitians.ca

Protein Content of Some Common Foods

Protein can be found in both animal and plant foods.

- Animal sources of protein include meats, fish, poultry, milk, eggs, cheese, yogurt
- Plant sources of protein include dried or canned peas, beans and lentils, nuts and seeds and their butters, and in soy products like tofu and soy beverages.
- Grains fruits and vegetables also add small amounts of protein to your diet.

Eating protein from a wide variety of food sources will help you meet your needs for nutrients for nutrients like iron, zinc, vitamin B12, calcium and vitamin D.

To estimate the amount of protein in your diet: Keep a food record for one or two days, recording what you eat and drink. Then add up the protein in your diet using the amounts in the foods listed below:

Food	Portion	Protein (g) (approximate)
Meat, fish or poultry	75 g (2 ½ oz)/ 125 mL (½ cup)	21
Firm tofu	150 g/ 175 mL	21
Egg, chicken	2 large	13
Cheese	50 g (1 ½ oz)	12
Fortified soy beverage	250 mL (1 cup)	6-8.5
Cooked dried beans, peas or lentils	175 mL (¾cup)	12
Cow's milk	250 mL (1 cup)	9
Yogurt	175 mL (¾ cup)	8
Peanut butter or other nut spread	30 mL (2 Tbsp)	8
Nuts or seeds	60 mL (¼ cup)	7
Bread	1 slice (35 g)	3
Cereals, cold	30 g	3
Cereals, hot	175 mL (¾ cup)	3
Pasta or rice	125 mL (½ cup)	3
Vegetables	125 mL (½ cup) or 250 mL (1 cup) lettuce	2
Fruit	1 fruit or 125 mL (½ cup)	

How to Use a Walking Aid

• Follow your weight bearing precautions • Practice one step at a time • Don't twist or pivot to turn, take small steps.	• Stairs may be done with crutches or a cane. This is determined by your weight bearing status. • When available, use a railing

Walking	Stairs: Going Up	Stairs: Going Down
• Place the walker/crutches one step length ahead • Put the operated leg ahead one step length • Put weight through the walker/crutches and step forward with the non-operated leg • Keep feet pointed forward • Try to keep even step lengths	• Stand close to the bottom step • Step up with your non-operated leg • Push through the crutches/ cane/railing and bring the operated leg up • Then move the cane/crutch to the same step	• Stand close to the top step • Place the crutches/cane down on the next step • Place weight through crutches/cane/ railing and put the operated leg down • Then step down with the non-operated leg
		

Preoperative Clinic Visit

The Preoperative Clinic visit will provide information about your hospital stay and help you prepare for your safe return home.

- Bring your medications in their original packaging, including over the counter medications, herbal medications, puffers or eye drops.
- You will meet with a team of health professionals:
- A nurse will review your health, inform you about what to expect during your hospital stay, and discuss ways to prepare for your discharge home.
- You may be seen be an Anesthesiologist who will discuss the types of anesthetics and pain management after surgery.
- Health-care team members will take your blood; do an Electrocardiogram (ECG) of your heart and X-rays if ordered by your surgeon.
- **You will be given an orthopaedic scrub to complete the night before surgery.**

Partnership Agreement

The orthopedic team believes that patients receive the best care when they are active participants in their care. We strongly encourage you to complete the following tasks to the best of your ability.

I understand that before my surgery I should:

- Read the patient education material.
- Identify one person who will be my coach.
- Attend the Preoperative Orthopedic Education Class.
- See my family doctor for any untreated or unstable medical conditions.
- Attend the Preoperative Clinic.
- Improve my exercise tolerance as able and practice the exercises.
- Prepare my home as suggested in this booklet.
- Arrange equipment as recommended by Physiotherapy and Occupational Therapy.
- Arrange transportation to and from the hospital.
- Arrange for help once I am discharged home.

I understand that during my hospital stay I should:

- Follow the advice of the health-care team members so that the risk of complications is reduced.
- Take an active part in my exercise program to improve my level of functioning and obtain the best possible results from my surgery. Discuss any questions or concerns with my health-care team.

Signature _____Date _____

Fish and Seafood		
Shrimp, cooked	75 g (2 ½ oz)	2.3
Sardines, canned	75 g (2 ½ oz)	1.7-2.2
Clams, canned	75 g (2 ½ oz)	2.1
Tuna, light, canned in water	75 g (2 ½ oz)	1.2
Pumpkin or squash seeds	60 mL (¼ cup)	8.6
Tofu	175 mL (¾cup)	7.3-8.0
Soybeans, mature, cooked	175 mL (¾cup)	6.5
Lentils, cooked	175 mL (¾ cup)	4.9
Beans (white, kidney, navy, pinto, black, roman/ cranberry) , cooked	175 mL (¾ cup)	2.6-4.9
Peas (chickpeas/garbanzo beans, black-eyes, split), cooked	175 mL (¾ cup)	1.9-3.5
Sunflower seeds, without shell	60 mL (¼ cup)	2.5
Baked beans, canned	175 mL (¾cup)	2.2
Nuts (cashews, almonds, hazelnuts, macadamia, pistachio nuts), without shell	60 mL (¼ cup)	1.3-2.2
Egg, cooked	2 large	1.2-1.8
Other		
Blackstrap molasses	15 mL (1 Tbsp)	3.6

Source: Health Canada, *''Canadian Nutrient File 2007b''* www.hc-sc.gc.ca/fn-an/nutrition/fiche-nutri-data/index-eng.php [Accessed September 12 2009].

Food Sources of Protein

Protein is found in many foods and is needed to keep you healthy. It provides building blocks for growth and for repairing cells like those in your muscles, skin, and nails. Your body also uses protein to make enzymes and hormones. This resource will help you to make sure you are getting the right amount of protein in your diet.

How much protein do you need?

Adults over 19 years of age need 0.8 grams of protein per kilogram of body weight.
An average adult man needs about 56 grams of protein each day.
An average adult female needs about 46 grams of protein each day.

Food	Serving Size	Iron (mg)
Vegetables and Fruits		
Spinach, cooked	125 mL (½ cup)	3.4
Asparagus, raw	6 spears	2.1
Potato, with skin, cooked	1 medium	1.3-1.9
Prune, juice	125 mL (½ cup)	1.6
Apricots, dried	60 mL (¼ cup)	1.6
Beets, canned	125 mL (½ cup)	1.6
Beets greens, cooked	125 mL (½ cup)	1.5
Artichoke, cooked	1 medium	1.6
Green peas, cooked	125 mL (½ cup)	1.3
Grain Products		
Cream of wheat, all types, cooked	175 mL (¾ cup)	5.7-5.8
Oatmeal, instant, cooked	175 mL (¾ cup)	5.1-6.3
Cereal, dry, all types	30 g (check product label for serving size)	4.0
Oat bran cereal, cooked	175 mL (¾ cup)	1.6
Milk and Alternatives	This food group contains very little of this nutrient	
Meats and Alternatives		
Meat and Poultry		
Duck, cooked	75 g (2 ½ oz)	2.0-7.4
Moose, cooked	75 g (2 ½ oz)	3.8
Beef, various, cooked	75 g (2 ½ oz)	1.3-3.3
Chicken or Turkey, various types, cooked	75 g (2 ½ oz)	0.4-2.0
Organ Meat		
Liver (pork, poultry, beef) , cooked	75 g (2 ½ oz)	4.9-13.4
Fish and Seafood		
Shrimp, cooked	75 g (2 ½ oz)	2.3
Sardines, canned	75 g (2 ½ oz)	1.7-2.2
Clams, canned	75 g (2 ½ oz)	2.1
Tuna, light, canned in water	75 g (2 ½ oz)	1.2

YOUR HOSPITAL STAY

What to Bring With You

- New Brunswick Medicare card and insurance information with insurance company policy/certificate group plan.
- Current medications in their original containers including over the counter medications and puffers.
- Personal care items, including tooth brush/paste, razor and comfortable clothing.
- Supportive shoes with a non-slip sole such as running shoes and slippers with a closed heel and non-slip sole.

REMEMBER: Your discharge from hospital is planned for three days after your day of surgery.

Please be sure to label your personal items and remember that the DECRH is not responsible for money, valuables or other personal property including eyeglasses, dentures and hearing aids.

Fragrance-Free Policy

In consideration of patients, staff and visitors who may suffer from chemical sensitivities and allergic reactions, we ask that patients and visitors please refrain from wearing scented personal products**.**

On the Day of Your Surgery

- Please use the main entrance at the DECRH and register at Admitting. If further blood work or tests are needed these will be done at this time. Next, you will go to the Day Surgery unit, located on the first floor.
- In the Day Surgery Unit, a nurse will meet with you, update your health history and review your medications. Your blood pressure, pulse and temperature will be taken.
- Your Surgeon and Anesthesiologist will meet with you. The Day Surgery staff will get you ready. This will include a 10 minute orthopaedic scrub.

Surgery usually takes two to two and a half hours. You will then be taken to the Post Anesthetic Care Unit or PACU, where you will be monitored until you are ready to go to the orthopedic floor (4NE) on the fourth floor of the hospital.

Anesthesia and Surgery

An Anesthesiologist is a specialized doctor who gives you the anesthesia during surgery. All surgery requires some form of anesthesia. This is done by “numbing” various parts of the body or creating a state of “deep sleep” with medication. This allows your surgery to proceed comfortably. If seen by an Anesthesiologist before your surgery, remember that it may not be the same one who gives you your anesthetic on the day of surgery. Our Anesthesiologists work as a team.

You must not have anything to **eat** after midnight the night before surgery, unless otherwise instructed. You may **drink** apple juice or water up to **two** hours before coming to hospital. Medication that your physician and/or the Preoperative Clinic nurse have instructed you to take should be taken with a sip of water only.

Two kinds of anesthetic are available: general or spinal. You will have an opportunity to discuss with your anesthesiologist the type that is best for you. The decision is yours, but is influenced by your general health and the type of surgery you are having. With general anesthesia you are fully asleep during surgery. With spinal anesthesia medication is put in the spinal fluid around the spinal cord. This freezes the nerves so that you have no feeling or movement in your legs. This numbness lasts about five hours. Spinal anesthesia is suitable for surgeries in the lower half of the body. When having a spinal anesthetic, you may choose to stay awake, or you may choose to have medication to put you into a light sleep. You will not see, hear or feel the actual surgery taking place.

Pain Management

Our goal is to make sure you are as comfortable as possible. Good pain control allows you to exercise and progress with your activity, which is important for a successful recovery. **You need to be an active participant in the management of your pain**. Tell your nurses if your pain is not managed or if you are having side effects such as nausea.

We use a pain rating scale where **0 = No pain** and **10 = worst pain.**

You will be asked to rate your pain using this scale. This helps us measure the success of the medication in reducing your pain to an acceptable level. If you are currently taking pain medications please take these at home the morning of surgery as you normally would.

How to Avoid Potential Complications

Infection is a possible complication after surgery. The risk of infection is reduced through the use of intravenous antibiotics before and after your surgery. At your Preoperative Clinic visit we will provide you with an antibacterial scrub (orthopaedic scrub) to be used before surgery. This scrub helps get rid of skin bacteria that can cause infections.

Breathing problems such as pneumonia can occur after surgery. It is important to do several deep breathing and coughing exercises every hour when awake the first few days after surgery. Deep breathing provides oxygen to your lungs and keeps your airways clear. Sitting up, getting out of bed as soon as possible and being active also helps prevent breathing problems.

APPENDIX 3

Food Sources of Iron

Adapted from

Dietitians of Canada
Les diététistes du Canada

PEN The Global Resource for Nutrition Practice

How Much Iron should I Aim For?

Age in years	Aim for an intake of* Milligrams (mg)/ day	Stay below* mg/ day
Men 19 and older	8	45
Women 19-50	18	45
Women 51 and older	8	45

* This includes sources of iron from food and supplements.

- Vegetarians need almost twice the daily recommended amount of iron compared with non-vegetarians. Iron from plant-based foods is not absorbed as well by our bodies as animal food sources.

Iron Content of Some Common Foods

You can find iron in both animal and plant foods.

- Animal sources (called ‘’heme iron’’) include meat, fish and poultry.

  Our bodies easily absorb this type of iron.

Plant sources (called ‘’ non-heme iron’’) include dried beans, peas and lentils and some fruits and vegetables.

In Canada, grain products like flour, pasta and breakfast cereals are fortified with iron. Our bodies better absorb this type of iron when taken along with meat/chicken/fish or a source of vitamin C. Vitamin C rich foods includes citrus fruits and juices, cantaloupe, strawberries, broccoli, tomatoes and peppers.

APPENDIX 2

Tips to Prevent Falls

- Install a hand railing along all stairs
- Take your time when you are going up or down the stairs. Be sure that stairways are well lit and free of clutter.
- Stairway carpeting should be secure.
- Always get up slowly after sitting or lying down.
- Pause before you start to walk to make sure you are not dizzy and you have your balance.
- Never rush to answer the telephone. Ask family/friend to allow the phone to ring many times, allowing you time to answer.
- An answering machine or cordless phone can be helpful. Keep emergency numbers in large print near each phone.
- Footwear should have support around the heel and rubber soles.
- Do not carry too many packages at once.
- When walking outdoors, avoid walking on poorly maintained sidewalks, unlit streets, icy surfaces, or uneven ground. Consider other options such as mall walking or indoor track walking.
- Try to walk with someone.
- Tuck in corners of the bedspread to prevent tripping.
- Remove or tie up long telephone cords and/or electrical cords.

Deep Breathing Exercises

- Place your hands on your stomach.
- Take a deep breath in, you should feel your hands move out.
- Hold two to three seconds.
- Breathe out and your hands should move back in.
- Relax and repeat 10 times each hour you are awake



Coughing After your deep breathing exercises, practice coughing to remove extra secretions from your lungs. To cough:

- Take a breath in with your mouth slightly open
- Do three short quick breathes out (huffing) **or**
- Take a deep breath in and then cough and repeat until you have cleared any secretions.

Deep Vein Thrombosis (DVTs) can develop in the deep veins of your legs after surgery. This is often associated with lack of movement, so early activity is encouraged. It is important to move your ankles up and down several times an hour. Anticoagulants (blood thinners) in pill or needle form will also be used to prevent blood clots.

Pulmonary Embolism is a serious complication that occurs when blood clots from the deep veins in the legs or pelvis break off, and travel to the lungs. Anticoagulants (blood thinners) are given after surgery to prevent clot formation. Deep breathing, coughing, foot and ankle exercises and early activity will also help prevent this complication.

Urinary problems such as difficulty passing urine can happen following any type of surgery. Sometimes a catheter (tube) is inserted into the bladder to drain the urine. It is usually removed on the first day after your surgery.

Nausea is the most common postoperative side effect. Medication can be given to help. Let your nurse know if you are experiencing nausea.

Constipation occurs because pain medication can make your bowels sluggish. Stool softeners are given to help prevent this. If the stool softeners are not effective, ask your nurse for a laxative. **Lots of fluid, a high fibre diet and activity also help**. (See Appendix 2, Tips to Prevent Constipation).

Confusion and Delirium can sometimes occur in older people after surgery. You may behave differently, and see or hear things that aren't really there. This usually resolves in a few days, but can last for several weeks. Many things can contribute to this, such as the anesthetic, pain medication, lack of sleep, and alcohol withdrawal. It is important to let us know if you have experienced this with previous surgeries. Wearing your glasses and hearing aids can help if you experience this. We also recommend that you reduce your alcohol intake several weeks before your surgery.

Having Problems Sleeping
To help overcome sleep problems try the following:

- Be active during the day and avoid long naps.
- Go to bed at the same time each night and get up at the same time each morning.
  See Appendix 7 for Guidelines for Better Sleep

Getting out of bed and walking as soon as you are able will help prevent many of these complications and allow for a smooth recovery.

Activity after Surgery

- A properly adjusted walking aid will be provided after surgery.
- You will be assisted to stand at the side of the bed the evening of your surgery.
- Your activity will increase on a daily basis.
- You will be instructed on the correct walking pattern and practice stairs.

How to Move after your Surgery

Getting Out of Bed

- Using your arms and non-operated leg slide yourself to the side of the bed you will be getting out on. Bend your non-operated leg and push on your heel to help you to move over in the bed.



- Move your legs over the edge of the bed, and come into a seated position with your arms supporting you. Do not twist your leg.



- Sit on the edge of the bed keeping your operated leg out in front of you. As you stand, place one hand on your walker/crutch/cane and push up from the bed with the other hand.



APPENDIX 1

Your Health-care Team and Contact Information

In addition to your surgeon and your nurses

- **Physiotherapists** provide a detailed assessment of the musculoskeletal issues and needs of each patient. Treatment includes education, exercises and gait training that will be progressed as you recover. We encourage you to continue with these exercises when you are discharged from the hospital.
- **Occupational Therapists** provide assessment and treatment services related to self-care, leisure, and work. Treatment includes education and techniques to help you return to your life and work as independently as possible. Your Occupational Therapist will review your home setup and may recommend additional equipment to help you be independent and safe at home.
- **Discharge Coordinator** helps patients with an identified discharge planning need. They can assist in planning for your discharge before your surgery.

Telephone numbers

Dr. Everett Chalmers Regional Hospital (DECRH)	452-5400
Pre-operative Clinic at DECRH	452-5572
Orthopaedic Unit - 4NE	452-5392
Stacey Fraser, Orthopaedics Nurse Manager	452-5696
Occupational Therapy	452-5253
Physiotherapy	452-5239
Fracture Clinic	452-5402
Extra Mural Program (Fredericton)	452-5800
The Arthritis Society www.arthritis.ca	1-416-979-7228

Orthopedic Surgeon	Office Number
Dr. J. Amirault	206-8040
Dr. T. Barnhill	458-0494
Dr. A. Berkshire	459-2655
Dr. S. Bowden	458-0490
Dr. P. Burton	457-2755

Cleaning/Household Chores

- During the time your precautions are in effect, avoid heavy indoor/outdoor household cleaning, such as washing floors, windows, cleaning the bathroom (toilet and bathtub), vacuuming, changing bed sheets, maintaining the wood stove, lawn mowing, snow removal, and garbage removal.
- Arrange for family/friends to help you with these tasks or hire temporary help from a community agency.

Sexual Activity

You may resume sexual activity in positions that are comfortable for your knee. The position on your back may be the most comfortable to start with. If you would like more information, please refer to Appendix 5.

Resuming an Active Lifestyle

When you can begin doing your leisure activities following surgery depends on the physical demands of the activity, your stage of recovery and the recommendations of your surgeon.

We hope that you have found the information in this booklet useful.
We wish you a speedy recovery, and many happy years with your new joint.

Getting Into Bed

- Back up to the bed until you feel your legs touching the bed. Place your operated leg out in front of you.
- As you sit place one hand on your bed, and the other on your walker/cane/crutch.
- Once seated, place your hands behind you. Use your arms and push yourself back across the bed until most of your operated leg is on the bed.
- Move your body up towards the pillow and slide your legs around on the bed.

Sitting

The best chair for you is a firm, high seat with armrests. Avoid low, soft overstuffed chairs. To prevent stiffness and swelling in your operated leg avoid sitting for long periods of time. When sitting, elevate your leg with a stool.

- To sit, back up with your walker until you feel the chair touching the back of your legs.
- Release your hands from the walker and reach down and hold onto the arm rests. Slowly lower yourself keeping your operated leg out in front.
- Sit then slide back in the chair bending your non-operated leg first. You use this technique when using a toilet with arm rails as well.



Standing Up

- Reverse the process of sitting.
- Slide forward to the edge of your chair; keep your operated leg out in front of you. Use your arms to push up off the armrests and push with your non-operated leg.
- If you have difficulty with any of the above, please ask your health-care team for suggestions. Your Physiotherapist may modify some of these techniques depending upon your situation (i.e. age, weight, and procedure).

PREPARING TO GO HOME

- An Orthopaedic/Fracture Clinic follow up appointment will be made for you (located beside the Emergency Department at DECRH).
- You will be followed by Outpatient Physiotherapy Services. You will be called after you are home to arrange an appointment.
- **Ensure you have your discharge instruction sheet and prescriptions.**
- Talk to your health-care team about how to decrease your pain medication as your pain medication requirements will decrease as healing occurs.
- Ask your nurse to return your home medications.
- Check if any scheduled blood work is necessary.

For Questions and Concerns after Discharge

Contact your surgeon's office, Monday to Friday 8 a.m. to 4 p.m.
If you have questions concerning your post-operative care, call the Orthopedic Unit at 452-5392 and ask to speak with the Resource Nurse.

When to Seek Medical Attention

Call 911 if you develop:	**Call your surgeon if you develop:**
• Sudden severe pain in your surgical leg • Inability to move the surgical leg • Shortness of breath • Chest pain	• Redness/drainage at the incision site • Fever • Dizziness

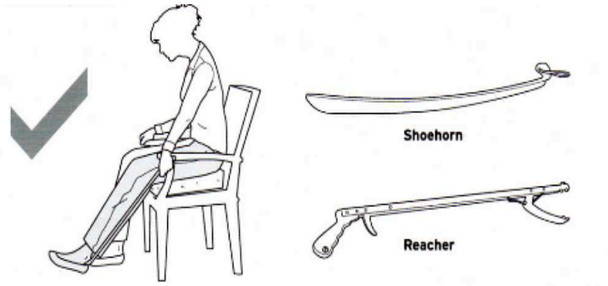
Note that your prosthesis may activate metal detectors, like those used in airports for security checks.

Care of the Operative Site

- Clarify with your doctor when any sutures or staples are to be removed.
- Inspect your incision daily for any redness or drainage.
- Once your incision is dry, it can be left open to the air and you can shower without covering it.
- If you have Steri-strips, please leave them alone. They will fall off on their own. After 3 weeks, your skin should be completely healed and you can gently remove any remaining Steri-strips.
- It is important that you don't bath in tub or go swimming until your sutures are removed and your incision is completely healed to avoid infection.

Shoes

- Use a long handled shoehorn to position shoe.
- Place your foot into the shoe using the long shoehorn.
- Avoid twisting your foot.
- Elastic shoelaces can convert lace up shoes into an easy slip-on style.



Doing the Laundry

Do smaller, more frequent loads. Ideally, it is best to have help with carrying the laundry. If necessary, you may carry small loads in a knapsack when you walk.

Your clothes should be in a bag that you can pick up with your reacher. A reacher may be helpful to retrieve clothing from the washer or dryer.

Preparing Meals

- You may find that walking and standing to make meals is difficult.
- To decrease standing during cooking and preparation times sit on a raised chair or high bar stool (not swivel). Use time saving appliances such as a blender, microwave oven or toaster oven. These appliances should be left out on the counter.
- Slide items across the counter top to avoid the need to carry items.
- You may find a reacher helpful for reaching into the bottom of your refrigerator, dishwasher and deep freezer.
- If you place things in the bottom drawer of your refrigerator, keep them in plastic bags so that they may be obtained using your reacher.
- To assist you in carrying meals and food items while you are using canes or crutches, place your meals in a plastic container and drinks in a thermal mug with a tight lid.
- Carrying items is safer when carried in pockets, e.g. apron, carpenter belt, knapsack.
- Do not use a step stool to reach for objects.

Using the Toilet

- Follow the same movement technique as for getting up/down properly from a chair.
- You may need to use a raised toilet seat. It fits on the rim of the toilet with the toilet seat up.
- You may find grab bars or toilet arms (called versa frames) helpful when getting up from this seated position.
- You could also use a commode chair in the bathroom or beside your bed. An occupational therapist will help you decide which is best for your situation.

Versa Frame



Raised toilet seat



Dressing

Pants/underwear

- Sit on a firm chair to get dressed with clothes placed next to your lap.
- Dress the operated leg first.
- You may need a long handled reacher to bring your pants up past your knees.
- Dress your non operated leg
- Pull underwear and pants up over hips while standing and holding onto the walker.

Socks

- You may find a sock aid useful.
- Slip a loose fitting sock over the sock aid.
- Place talcum powder inside the sock aid. This will allow your foot to slide easier.
- Drop the sock aid to the floor and insert your foot.
- Point your toes/ankle downward to assist with sliding into the sock.
- Continue to pull on the straps with both hands to pull the sock up and remove the sock aid.

Getting in and out of a vehicle

How to set up the vehicle:

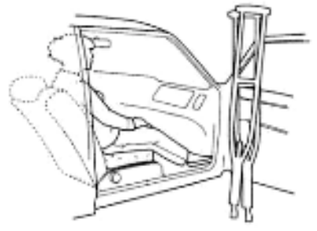
- The front seat should be moved back as far as possible.
- Use a firm cushion or folded blankets to raise the car seat to a good height before getting in.
- Place a garbage bag over the seat to ease with getting in and out.
- Enter the car from street level rather than next to the curb.
- If travelling for more than two hours take rest breaks by adjusting the back/reclining feature of the seat.
- **You cannot drive until your surgeon says you can; this is for legal and insurance purposes. Ask your surgeon at your return visit when you can resume driving. If you have a car with a manual transmission, talk with your surgeon about driving limitations.**

Getting In:

- Family and/or your coach should be prepared to assist you with getting in and out of your vehicle.
- Back up to the car with your walker or crutches until you feel the seat behind you.
- Slowly lower yourself to the seat. Keep your operated leg out in front.
- Leaning back slightly, slide back into the car until **your knee crease touches the seat. Bring one leg in at a time, keeping your knees apart.**







Getting Out:

- Reverse the process of getting in.
- Bring one leg out at a time, keeping knees apart
- Slide forward toward the edge of the seat
- Keep your operated leg out in front of you
- Stand up on your non-operated leg

ONCE YOU ARE AT HOME

No two people will progress at the same rate. The speed and success of your rehabilitation following total knee replacement surgery depends heavily on you. Both rest and exercise are needed for a healthy recovery. You will tire easily the first few weeks after your surgery. Let the way you feel be your guide. Stop what you are doing and rest when you begin feeling tired. You will benefit from short, frequent walks rather than one long walk. Slowly increase the distance you walk. Follow the instructions you were given by your therapists.

It is normal for your knee to be swollen for many weeks following surgery as the healing process continues. It is also normal to feel some numbness in the skin around the incision. Your surgical leg may swell as you become more active following surgery. To reduce the swelling, lie down with your leg elevated two to three times per day for 45 minutes at a time. Use pillows to support your leg from your knee to your heel with no gaps. Your leg should be fully supported and your knee straight. Your foot should be above the level of your heart.

After Discharge from Hospital

It is normal for your knee to be warm and swollen for many weeks following surgery as the healing process continues. You may use ice packs on your knee to help reduce pain and swelling. It is also normal to feel some numbness in the skin around the incision.

Dental or Other Medical Procedures

It is important to let your dentist and other health-care providers know that you have had a knee replacement.

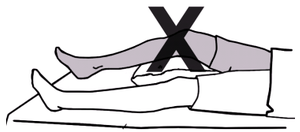
Pain Control

Pain can be relieved by:

- Balancing rest and activity.
- Using ice to help reduce pain and swelling. Use it for 15 minutes at a time for maximum benefit.
- Elevating your leg above your heart level to help reduce swelling, pressure and using pain medications as directed.
- Avoid alcoholic beverages while taking pain or narcotic (opioid) medication.

Knee Precautions

Do not sleep with your operated knee bent.



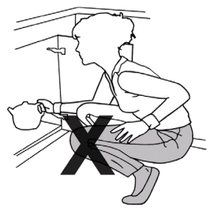
If using pillows, place them **lengthwise** to support your knee and lower leg in a straight position.



Do **not** kneel on your new knee.

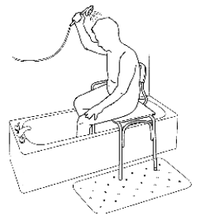


Do **not** do deep squats, ever.



Showering in the Bathtub

- Adjust water flow and temperature before getting in.
- With walker/crutches, turn your back toward the tub. Sit sideways on the tub transfer bench and swing your legs into the tub.



Helpful Hints

- Remember to use a rubber mat to prevent slipping.
- A hand held shower head is useful and easy to install.
- Dry yourself before leaving the tub and be sure the floor is dry before standing up.
- Do not use the soap dish, towel rack or shower curtain rod as a grab bar. They will not support your weight.
- Aids that will help you include a long handled bath sponge, toe washer, and grab bars.