BEFORE, DURING & AFTER
Hip Joint Replacement Surgery

Interior Health
BEFORE, DURING & AFTER
Hip Joint Replacement Surgery
Self Screening for people awaiting Joint Replacement Surgery

The following are risk factors that may delay your recovery and prolong your hospital stay. Please review and take the recommended action.

<table>
<thead>
<tr>
<th>RISK</th>
<th>ACTION</th>
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<tbody>
<tr>
<td>Pain interfering with sleep, required activities, appetite and mood.</td>
<td>See pages: 7–13, 41, 46 Consult family physician</td>
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<tr>
<td>Depression or consistently low mood</td>
<td>Consult family physician</td>
</tr>
<tr>
<td>Low hemoglobin or tired</td>
<td>Consult family physician</td>
</tr>
<tr>
<td>Medical conditions</td>
<td>Consult family physician or specialist</td>
</tr>
<tr>
<td>Problems walking safely</td>
<td>See pages: 15–16</td>
</tr>
<tr>
<td>Problems carrying out necessary daily activities</td>
<td>See pages: 46–55</td>
</tr>
<tr>
<td>No one available to assist you at home after surgery</td>
<td>See pages: 21–25</td>
</tr>
<tr>
<td>Difficulty arranging required equipment after surgery</td>
<td>See page: 26</td>
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</tbody>
</table>
| Challenging home set up for example, many stairs                    | See page: 24
Contact community health centre or family physician.                |
| Regular alcohol, tobacco or other addictive substance use           | Consult family physician or Specialist.                                |
Acknowledgements

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“Before, During and After Your Total Joint Replacement”
Booklet developed by Vancouver Coastal Health Authority

as well as

“Your Total Hip Replacement” and “Your Total Knee Replacement”
by The Physical Therapy Department of The Mary Pack Arthritis Program
and The Reconstructive Orthopaedic Health Care Team at
Vancouver General Hospital.
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Introduction

Research shows that people who are well prepared and fully participate in their care have a smoother and faster recovery after joint replacement surgery. Preparing for surgery involves getting yourself and your home in the best possible shape. During the wait for surgery, it is important that you strive to maintain and improve your health and fitness. The purpose of this book is to describe what you can do before, during and after surgery so that your joint replacement is as successful as possible.

Joint replacement is a major surgery that requires a great deal of hard work and healing on the part of the patient. You can play a key role in preparing for a successful surgery and recovery. You are training for a major physical event and the health care team are your coaches.

Hospital stays are short. In general, your home is a healthier place to recover - people tend to eat, sleep and heal better at home. The length of stay in hospital depends upon the type of surgery and recovery. Most people go home within two or three days following surgery with the help of family or friends. Some people stay longer due to health problems. The role of the health care team in hospital is to get you moving and resuming your daily activities safely, as soon as possible.

Review and follow the guidelines in this book carefully before, during and after your hospital stay to get you and your home in the best possible shape for surgery and recovery. Remember to bring this book with you to the hospital.

If there is a difference between this book and instructions from your surgeon, family doctor or orthopedic team, follow the instructions specified by your surgeon/doctor/team.
About Joint Replacement Surgery

Joint replacement surgery is one of the most important and consistently successful orthopedic procedures in surgery today.

The most common causes of joint disease are osteoarthritis, rheumatoid arthritis, and avascular necrosis (death of the bone due to lack of blood supply). Joint replacement surgery is considered only for those people with severely damaged joints who can no longer be helped sufficiently by other means, such as exercise, weight control, medications etc. Joint replacement surgery may:

- relieve pain (the main reason for most people)
- improve joint motion
- correct deformity
- improve function such as walking, standing, dressing, bathing, etc...

More than 90% of people have good to excellent results following a first joint replacement. The life expectancy of the implant is difficult to predict but is generally thought to be 15 to 20 years. The more stress you place on your joint, the faster your new joint may wear out. After this time, a revision procedure is usually needed due to "wearing out" of the components.

There are numerous types of joint replacement surgeries and some are only suitable for certain people. The best surgery for you is decided with your surgeon based on: your age, how strong your bone is, the shape and condition of your joint, your general health, your weight and activity level.
Types of Hip Replacements

Total hip replacement (THR) (also called total hip arthroplasty, THA) consists of two parts.

Femoral (ball and stem) component - the ball and stem fits into the femur or thigh bone.

Acetabular (socket) component - the acetabular component fits into the socket in the pelvic bone.
The Surgical Procedure for Total Hip Replacement

The incision is usually made over the top of the femur (thigh bone). The muscles that hold the hip in place are partially detached. The ball of the femur is then removed from the acetabulum (pelvic socket). The damaged cartilage and bone are cleaned away. The new socket cup is then fixed in place in the pelvic socket.

The head (ball) at the end of the femur (thigh bone) is then removed. Some bone marrow is removed from the hollow of the femur so that the metal stem can be placed.

The new hip is put together and the muscles and skin are sewn in place with sutures and or staples. The hip is then tested for movement and stability. The surgery usually takes about 1.5 hours.
**Hip Resurfacing**

Hip resurfacing is a type of hip replacement surgery that may be suggested by your surgeon based on a number of factors including the degree of damage to your joint and your overall health. In this surgery, the surgeon replaces the diseased joint with a special form of artificial joint (resurfacing prosthesis). First, the surgeon makes an incision and moves the muscles and ligaments away from the hip joint. Then the damaged cartilage and some parts of the bone surface are removed from the head of the thigh bone (femur) and the hip socket (acetabulum). A ball-shaped cap is placed over the head of the thigh bone. The hip socket is smoothed and lined with a molded shell. Once the joint is put back together, the muscles and ligaments are repaired. Your skin is closed with sutures or staples (staples are metal clips that hold your skin together while the incision heals).

**Revision (Repeat) Joint Replacement Surgery**

If for any reason joint replacement surgery fails, revision surgery may be necessary. In revision surgery, the original joint replacement components are removed and replaced with new ones. Revision surgeries are more complex and the implants may not last as long as first time or primary joint replacements. Failure can occur for a variety of reasons including repeated dislocations, loosening and wear of the new joint, bone loss and infection. Sometimes the joint fails when too much stress is placed on it over time. **It is extremely important to follow the long term precautions to protect your joint.**
There are two ways in which your joint replacement may be held in place:

1) cemented – using bone cement, or

2) uncemented - bone will grow into the prosthesis

**Cemented Joints**

One or both components are held in place by a special bone cement (methyl methacrylate). This cement is pressed into the small nooks and crannies of the bone to form a bond between the metal and the bone. The cement hardens immediately allowing early weight bearing and walking following surgery.

**Uncemented (“porous coated”) joints**

In an uncemented replacement, the components are coated with thousands of tiny beads. These beads provide a huge network of nooks and crannies into which new bone can grow. This provides a direct bone to metal bond without cement. The new bone takes 6-12 weeks to grow and it may be necessary to protect the growing bone. For this reason, you may be required to keep your weight off the new joint and use crutches or a walker while you are healing.

**Hybrid Joints**

In this type of surgery, one piece of the artificial joint is attached with cement while the other piece is covered in a rough material that encourages bone growth. Bone growth into the artificial joint can provide additional long-term joint stability. Some parts of the artificial joint may be screwed in place to keep the joint stable.
INSERT TAB HERE

‘Pain Management’
Pain Management – Before Surgery

What is pain?

- Pain is your body telling you that it is injured.
- Pain signals are sent along nerve fibers to your brain.
- Pain may be caused by tissue damage, infection or inflammation.
- The pain in your joints can be due to osteo/rheumatoid arthritis or joint damage.

Why is there pain?

- In osteoarthritis, there is a wearing down of the joint cartilage that normally acts as a cushion. The breakdown in cartilage leads to inflammation and bone friction – which can result in aching or stiffness.
- Rheumatoid arthritis is a disease where the immune system attacks the joint cartilage and surrounding tissues. This results in tenderness, swelling, stiffness and long term inflammation and pain.

Why is management important?

- Pain can affect your daily activities and quality of life.
- Pre-surgical pain can sometimes be neglected. If you are feeling pain before surgery, talk to your doctor about starting pain management as soon as possible.
- Communicate information with your healthcare team members and be involved in your pain management therapy.
- When describing pain, always try to include the place of the pain, the quality of pain (throbbing, stabbing, dull), if you get any relief from pain, the severity of pain on a scale of 0-10, and when your pain occurs (in the morning versus at night).
- Always try to follow the medication regimen prescribed for your specific needs.
What are some medications that can help?

There are 3 main classes of medications used in pain management.

1. Non-narcotics  
   - acetaminophen (Tylenol)
2. NSAID (Non Steroidal Anti-inflammatory Drugs)  
   - ibuprofen (Advil) (Motrin), ASA (Aspirin),  
     diclofenac (Voltaren), celecoxib (Celebrex),  
     naproxen (Naprosyn)
3. Narcotics (Opioids)  
   - codeine, oxycodone, morphine, hydromorphone (Dilaudid), fentanyl

Myths about medications!

**Addiction:** Narcotics are used in pain management, but addiction to these drugs rarely occurs when they are taken for pain relief. People sometimes confuse addiction with physical dependence. These are not the same.

**Tolerance:** Over time the body may require more of the pain medication to get the same effect. Medication doses may need to be adjusted with your doctor to get the best pain relief.

**Physical dependence:** Over time, the body adapts to certain pain medication after continued use. When the medication is stopped suddenly, the person may experience withdrawal symptoms such as headache, sweating and nausea. These symptoms can be prevented by slowly reducing the dose of the drug over time, rather than stopping it suddenly.

If you have a history of addiction to alcohol or drugs talk to your doctor.
Can I know a bit more about these medications?

1. Non-narcotics - acetaminophen
   - Works by reducing pain signals traveling through the pain fibers
   - Used to treat fever
   - Does not have an anti-inflammatory effect
   - Dosing: 325 -1000 mg every 4-6 hours as needed
   - Side effects: may include nausea, liver problems (uncommon)
   - **CAUTION:** Do not exceed 4000 mg per day.
   - Discuss the use of acetaminophen with your doctor if you regularly consume alcohol.

2. Non Steroidal Anti-inflammatory Drugs - NSAIDS
   - Prostaglandins increase inflammation and may cause pain; NSAIDS work by reducing prostaglandin production; thereby reducing pain.
   - Can be used to treat fever
   - Side effects: may cause dizziness, kidney problems, stomach upset
   - Dosing: varies with the different NSAIDS
   - **CAUTION:** Let your doctor know if you have a history of stomach ulcers, heart failure or kidney disease.

3. Narcotics (Opioids)
   - Works by blocking the signal transmitted by the pain fibers
   - Side effects: nausea, vomiting, sedation, dry mouth, constipation.
   - Dosing: amount will depend on your requirements to reach adequate pain control.
   - **CAUTION:** Discuss the use of narcotics (opioids) with your doctor if you regularly consume alcohol.
**What are some side effects of pain medications and how can they be managed?**

**NSAIDS:**

<table>
<thead>
<tr>
<th>Side effect</th>
<th>Management Strategy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stomach upset</td>
<td>1. May be taken with food</td>
</tr>
<tr>
<td></td>
<td>2. Enteric coated tablets may decrease stomach upset</td>
</tr>
<tr>
<td>Bleeding</td>
<td>Let your doctor/pharmacist know if you have a bleeding disorder or if you are on an anticoagulant</td>
</tr>
<tr>
<td>Sensitivity</td>
<td>Let your doctor/pharmacist know if you have an allergy or breathing problem with ASA or any NSAID</td>
</tr>
<tr>
<td>Kidney Impairment</td>
<td>Inform the doctor/pharmacist if you have kidney impairment</td>
</tr>
</tbody>
</table>

**Narcotics (Opioids):**

<table>
<thead>
<tr>
<th>Side effect</th>
<th>Management Strategy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sedation</td>
<td>Allow a few days to let your body get used to the sedation. Do not attempt to drive until you know how the medication affects you. Do not mix with alcohol or other medications that cause drowsiness without advice from your physician</td>
</tr>
<tr>
<td>Dry Mouth</td>
<td>Use a sugar-free candy or lollipop</td>
</tr>
<tr>
<td>Nausea/Vomiting</td>
<td>Taking dose with food may help. Lie down if you experience nausea. You may use dimenhydrinate (Gravol) to help with symptoms</td>
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</table>
| Constipation        | **Prevention is the key!**  
Drinking lots of fluids (up to 8 glasses a day)  
Can use a laxative under physician supervision |
| Sensitivity         | Let your doctor/pharmacist know if you have an allergy to any narcotics (opioids) |
More than one medication?

- There are 3 main medication classes used for pain management. Each class of medication provides pain relief, but through different mechanisms.

- Adding medication from different classes can act together to help control pain.

- Some medication is available in different formulations; immediate release or sustained release.

- The immediate release (fast acting) medications can have an effect in as little as 30 minutes, but may last only a few hours, compared to the sustained release medications (long acting) which start their effect in 1-2 hours but last longer.

- Sustained release formulations may be taken on a regular basis and the immediate release medications can be taken “as needed” if the pain is not controlled.

Always try to follow the medication plan as prescribed by your doctor. You may experience side effects to these medications, but with proper management and good communication with your healthcare team, pain control is possible.
Pain Relief Strategies to Use with Your Pain Medicine

**Arthritis Exercise Programs** - A program specifically designed to help you build strength, flexibility and to improve your mobility may help you to control your pain. Contact the Arthritis Society, your doctor, occupational or physical therapist, or local community center for assistance/information.

**Consult with an occupational therapist or a physical therapist** - These professionals may help you to select and use equipment to help you move, walk and do your activities of daily living more comfortably. A consultation can be arranged through your local community health centre, your family doctor or by contacting a private clinic.

**Relaxation exercises and imagery** - Relaxation exercises and imagery may help you to rest and sleep and may also distract you from the pain. Use music as a way of calming and relaxing the body and mind. Rhythmic breathing, relaxation techniques or meditation can be helpful in de-stressing and promoting healing.

**Heat and cold** - The decision to use either heat or cold for arthritis pain depends on the type of arthritis and should be discussed with your doctor or therapist.

An ice pack (or a bag of frozen vegetables) wrapped in a damp towel and placed on the sore area for about 15 minutes may help to reduce swelling and stop the pain. If you have poor circulation or altered sensation, do not use cold packs.
Before surgery, moist heat, such as a warm bath or shower, or dry heat, such as a heating pad, placed on the painful area of the joint for about 15 minutes may help to relieve the pain. Caution should be used if you have poor circulation or changed sensation. Check with your health professional about showering after surgery.

**Joint Protection** - Using a splint or a brace allows joints to rest and protects them from further injury prior to surgery. Your doctor, occupational or physical therapist may assist you with this.

**Mobility Aides** – A cane, walker or crutches can help take considerable stress off your painful joint and decrease your pain.

**Massage** - A massage therapist will lightly stroke and/or knead the painful muscle. This may increase blood flow and bring warmth to a stressed area. Arthritis-stressed joints are very sensitive so it is important that the therapist is familiar with this disease.

**Sleep** – Sleep is very important in pain management. Make sure you are getting adequate amounts of sleep.
‘Before Your Joint Surgery’
BEFORE your Joint Surgery

Get Your Body in Shape

To speed your recovery, it is important to get in the best physical shape possible for your surgery. **While on the wait-list for your surgery, focus on building your strength and staying as active as you possibly can!**

You will need to rely more on your arm strength to help move yourself around in and out of bed on those first few days after surgery. See a physical therapist in your community, talk to a fitness trainer in your local gym, or find a workshop that teaches people with arthritis how to lift weights. Another option is to find an armchair exercise video which concentrates on upper body strengthening, while resting the lower body.

Check out your local community center for aquatic classes or Osteo fit classes designed specifically for people with arthritis. Even practicing walking (backwards, forwards, sideways) in the water is beneficial as the water reduces the weight-bearing force on your joints and builds muscle strength.

The Arthritis Society has exercise programs for people and is an excellent resource. Contact the Arthritis Answers Line at 1-800-321-1433.

Choose low-impact activities such as walking (use good shock-absorbing shoes), swimming, water aerobics, stationary cycling, or chair aerobics. If exercising is new to you, **consult your family doctor to make sure that there are no associated health concerns before starting a new exercise program.**
Avoid activities which significantly increase the pressure in your damaged joints such as using a stair-master, jogging or intense hiking. As much as possible your activities should be pain-free. Throw away the slogan “no pain-no gain” but keep the slogan “use it - or lose it”! If your arthritis is severe and you are often in pain, you may only be able to exercise in water or perhaps not at all. If you have pain for more than 2 hours following an activity or exercise session, you have done too much. Reduce the intensity of the exercise or the duration of the activity.

The bottom line is to focus on getting as strong and fit as you possibly can.

Healthy Eating for Healing

Healthy eating helps to prepare your body for surgery. Your body needs to be well nourished to heal the bones, muscles, and skin that are affected by the surgery. The nutrients from food provide us with the strength, energy, and ability to heal. People who are well nourished are less likely to develop infection and heal faster.

There are several nutrients from food that are important before, during, and after your surgery.

**Calcium** is needed to heal your bones and keep them strong. Good sources of calcium include: milk, yogurt, cheese, canned salmon, and sardines (with the bones). Smaller amounts of calcium are also found in beans and lentils, broccoli, kale, bok choy and oranges. Calcium-fortified foods include: fortified orange juice, tofu, soy milk, and rice milk are also an excellent way to increase your dietary calcium intake. You need to read to the label to make sure the product you chose is fortified. Most adults require at least 1000-1200 mg of calcium every day. Menopausal women and men over the age of 50 years need 1500 mg calcium. Drinking more than 4 cups of coffee or caffeinated products each day will take calcium from you body so try to limit these items. In the reference section of this book, there is a handout with more information about calcium titled “Food Sources of Calcium and Vitamin D”.
**Vitamin D** helps your body absorb calcium. Only a few foods have vitamin D. Good sources of vitamin D-fortified foods include: fortified milk, orange juice, soy milk, and margarine. Fish, liver, and egg yolks are some of the few foods that naturally contain vitamin D. **Eating Well with Canada’s Food Guide** recommends that everyone over the age of 50 should take a vitamin D supplement of 400 IU in addition to the vitamin D that is in 2 cups of milk each day for a total of 800 IU. Most multivitamin mineral supplements contain 400 IU vitamin D. For more information, refer to “Food Sources of Calcium and Vitamin D” handout in the reference section of this book.

**Protein** is needed to maintain and increase your strength before and after surgery. Protein is necessary for healing after surgery. High protein foods include: beef, pork, fish, poultry, eggs, milk and dairy products, soy milk, beans, nuts, peanut butter and tofu. Include some protein foods at every meal.

**Iron** is a very important nutrient that your body needs to build up the hemoglobin in your blood and prevent anemia. Hemoglobin carries oxygen throughout your body. If your hemoglobin level is low (anemia), you may feel tired, dizzy, and weak or get short of breath easily. With low hemoglobin, you are more likely to need a blood transfusion after your surgery. Good sources of iron include meat, fish, poultry, canned oysters, clams, beans, tofu, some green leafy vegetables, and fortified whole grains. However the type of iron found in meat, fish, and poultry is best used by your body. Non-meat iron containing foods can be better used by your body by eating foods rich in vitamin C with these foods. Examples of vitamin C rich foods include: citrus fruits and juices, tomatoes and tomato products, cantaloupes, strawberries, kiwis, and sweet peppers. For more information, refer to “Iron and You” and “Iron Content of Common Foods” handout in the reference section of this book.

**Vitamin B12 and folate/folic acid** are important nutrients to prevent certain types of anemia. Good sources of vitamin B12 include: fish, meat, poultry, eggs, milk and milk products. Good sources of folate/folic acid include: leafy green vegetable, dry beans and peas, fortified grains, and orange
juice. When you are over the age of 50, you do not absorb Vitamin B12 as well. Taking a one a day multivitamin with minerals will provide you with the additional B12 you need.

Three months before your surgery, ask your family doctor to check your complete blood count (CBC). Ideally, your hemoglobin level should be in the high end of the normal range. You may need to take an iron or additional vitamin supplement to bring your blood level up. Eating well helps to ensure that you have a good hemoglobin level before surgery and may reduce the risk of requiring a blood transfusion after your surgery.

There are many other nutrients that help with healing and keeping you healthy. Some of these nutrients you may be familiar with include vitamin C, vitamin A, and zinc. A variety of healthy foods will provide you these nutrients. If you have a poor appetite, talk with your doctor, pharmacist, or dietitian as you may need a daily multivitamin mineral supplement.

**Bowel Health**

Constipation is a common side effect of many pain medications and inactivity. It is important that you eat enough fibre and drink enough fluids to keep your bowels moving. Plant foods will give you the fibre that you need. Some people choose high fibre cereals as part of their daily routine to help them achieve their fibre goal. For more information, refer to “Fibre and Your Health” handout in the reference section of this book.

**Weight Management**

Right now, weight is not about your looks, it is about your health!

For every pound of weight that you lose, it is equal to 4 pounds less strain on your hips and knees. A 5 pound weight loss is equal to 20 pounds less strain on your joints. Being underweight is also a risk to your health. Being underweight may lead to nutrient deficiencies that affect your bone health, immune system, energy level, and sense of well being. Most people
“know” if they are at a healthy weight. There are ways to determine if you are at a healthy weight. Your doctor or dietitian will use the BMI (Body Mass Index) and WC (Waist Circumference) to help determine the best weight for you.

If you are overweight, you can safely lose about 1 pound a week. Therefore, if you have 12 weeks before surgery, you can safely lose up to 12 pounds. Research shows that the bottom line to weight loss is commitment to healthy choices and activity. Do you meet your friend for coffee and a donut or do you meet your friend for a gentle walk or a swim at the pool? If you are going to lose weight please do so in a healthy way. Eating Well with Canada’s Food Guide is a handout designed by Health Canada emphasizing variety and portion management through balanced meals. In the reference section of this book, there is a copy of Eating Well with Canada’s Food Guide. You can create your own personal Food Guide at www.healthcanada.gc.ca/foodguide and follow the links.

FAD diets or Crash diets never achieve long lasting results. Most people who lose weight with fad diets gain all their weight back and more within a year. These diets often cause constipation, headaches, moodiness, and general fatigue with risk for long term health complications.

There are some good weight loss supports available. Weight Watchers™, TOPS™, and programs offered through community recreation programming have shown to have good success.
Here is an **example of a healthy day’s menu** including the nutrient suggestions discussed above.

**Breakfast:**
- 1 slice of whole grain toast with 1 teaspoon of non-hydrogenated margarine
- 1 orange or another fruit
- 1 poached egg
- try adding milk or evaporated milk to your coffee or tea for extra calcium

**Snack:**
- 1 small yogurt about ¾ cup
- ¼-1/3 cup very high fibre cereal such as All Bran Buds with Psyllium®

**Lunch:**
- Large salad topped with coloured peppers, and orange segments
- 1 tablespoon of a vinaigrette style dressing
- 2 ounces fish, chicken or beef (about ½ the size of a deck of cards)
- 1 small whole grain dinner roll with 1 teaspoon non-hydrogenated margarine
- 1 cup skim or 1% milk

**Snack:**
- 1 small apple or another fruit
- a few nuts or a smear of peanut butter on the apple

**Supper:**
- 3 ounces of lean meat such as beef, fish, chicken, pork (*size of a deck of cards*)
- ¾ cup brown rice
- Large serving of green, orange, and brightly coloured vegetables
- 1 cup skim or 1% milk

This day’s menu is approximately 1500 calories and most people would experience gradual weight loss with regular exercise. It also includes 35 grams fibre, 44 grams fat (24%), and 90 grams protein. It is rich in calcium, iron, zinc, vitamin C, and vitamin A.

For more nutrition information, you can call the **FREE Nutrition Hotline** (Dial-a-Dietitian) at 1-800-667-3438 to speak with a Registered Dietitian. You can also visit the **Dietitians of Canada FREE website** for more information at www.dietitians.ca. For more personalized assistance, your family doctor will be able to refer you to a local Registered Dietitian.
Arrange For Help At Home

Before you come into the hospital it is critical that you identify someone to be your support person to stay with, and assist you at home after your surgery. Someone should stay with you 24 hours a day for at least the first 3 days after you go home and be readily available to you for 10 – 14 days after you come home from the hospital. Inpatient rehabilitation hospital care is rarely an option after surgery.

Many people require help with shopping, meal preparation, housekeeping, and sometimes personal care. You will also need to arrange for transportation home from the hospital. If family or friends are not available to help, you may choose to contact a private agency. These are located in the Super (Yellow) Pages under Home Support Services. If you are having difficulty managing at home now, or are concerned about managing at home after your surgery call BC Healthlink at 811 for information about local resources.

Preventing ahead of time will make your return home easier and safer for you.

If you already have homemaking services, arrange to have these increased the first few weeks after surgery. See “Community Resources” for more information on Home Help.
Helpful Hints:

- Arrange for someone to look after your home while you are in the hospital. This may include watering plants, caring for pets and picking up mail.

- Cancel any services you do not need while in hospital such as newspaper delivery, milk delivery, homemaker services, etc.

- Discuss with your family or friends your transportation needs to and from the hospital. Make sure the vehicle has enough space to allow you to sit comfortably and safely in the passenger front seat.

- You may be eligible to use HandyDART for your transportation. HandyDART Custom Transit is available in most communities in the province. See “Transportation” for more information on how to arrange for HandyDART service. To qualify, your doctor or therapist will verify that you have a disability that does not allow you to use public transit and you will be required to fill out an application form.
Getting your home in shape

After surgery you will not be able to move and bend the way you normally do.

To prevent dislocation following your hip replacement surgery, it is vital that you DO NOT:

- twist your hip
- cross your legs
- sit on any surface lower than your own knee height
- bend the operated hip no more than 90 degrees or as directed by your surgeon or health care team

These rules apply for at least 3 months after the surgery.

You will be using a walker or crutches to get around. You may also tire more easily and could be more likely to lose your balance. This will affect the way you carry out everyday activities that most of us take for granted, such as getting up and down from a toilet, getting yourself dressed daily, and organizing your meals. You need to be as safe as possible as you carry out the activities you need to do.
There is a great deal you can do to get your home in shape for your convenience and safety:

- Install a railing along any stairs, both inside and outside your home
- Remove scatter rugs, cords, clutter and anything that could cause you to trip
- Remove all plants/other items from stairways
- Remove mildew or ice from outdoor steps
- Make sure the inside of your home is well lit and use night lights, particularly on the way to the bathroom
- Install a grab bar or secure hand rail in your shower or bath
- Be sure that your shower or tub has a non-slip coating or mat
- Install a hand-held shower attachment for easier bathing
- Reorganize cupboards/closets/fridge so items you use often are within safe reach
- Buy frozen meals or prepare your own and freeze them for when you come home from the hospital. Stock up on canned food and other staples. See “Community Resources” for more information on Meal Catering
- Remove sliding glass doors from bathtubs
- Put a high stool for sitting in the kitchen for doing countertop activities
- Add an extra firm cushion to low chairs, bringing the seat height 2 inches above the knee (chair should have a firm back and arm rests)
- Prepare a bed on the same level as your kitchen and bathroom if possible
- Check that the top of your bed’s mattress is at least as high as your knee. Add another mattress or place the frame on blocks if it is too low
- Consider having a friend or family care for your pets, especially if they are active and need exercise
In order to keep you safe and help you to carry out your daily activities you will need to obtain the following assistive devices. This equipment is essential following hip replacement surgery.

- long-handled reacher (grabber)
- long-handled shoe horn
- sock aid
- extra-firm cushion – 4 in. x 16 in. x 18 in.
- safe supportive shoes - either slip on or with elastic laces or velcro straps (purchase laces at a medical supply store)
- crutches / walker
- long handled bath sponge
- raised toilet seat
- loose, comfortable clothes – so you can get yourself dressed
- bath transfer bench / shower seat

Your occupational therapist and physical therapist will instruct you on their use in your education class, during a home visit or in the hospital. You may be asked to bring some devices into the hospital. Please clarify with your therapist.
How to Obtain Equipment

Medical supply stores have most of the equipment you need if you choose to purchase. **Red Cross depots** or services clubs/health units have a limited supply of crutches, walkers, canes, raised toilet seats and grab bars that can be loaned to you free of charge for up to 3 months. You may require a referral from a medical professional to borrow equipment.

At least a week before your surgery, purchase or call and arrange to pick up your equipment from the Red Cross, or service club/health unit. There are Red Cross loan service depots throughout Interior Health. Look in the white pages under “Canadian Red Cross Society” for the depot nearest you.

The elastic shoelaces may be purchased at a medical supply store. The cushion may be purchased at a foam shop or at a medical supply store. Check the Yellow Pages for the shop nearest you.

*Arranging these things in advance will prepare you for a safe recovery.*

* Some hospitals and community health programs can arrange for a community therapist consultation or home visit to assess your particular needs and make equipment recommendations. Contact your local health department or family doctor for more information. Call BC Healthlink at 811 for more information.
‘Complications—How to Prevent Them’
Complications - How to Prevent Them

Joint replacement is a major surgery and all surgeries come with a risk of complications. Complications may occur due to prior health problems, the anesthetic, and disruption to the muscles, nerves and blood vessels that normally occur with the surgery. There is a great deal you can do to prevent or lessen complications.

Low Blood (Anemia)
You may lose a significant amount of blood during your joint replacement surgery. Blood loss can result in a drop in your hemoglobin – this is called anemia. Hemoglobin carries oxygen throughout your body. Hemoglobin can be measured with a blood test and has a broad normal range. For women the normal range is from 115 to 160 and for men it is from 135 to 175. Having your hemoglobin level at the high end of the normal range before surgery may reduce your risk of anemia after surgery. If your hemoglobin level is too low, you may feel dizzy and weak, short of breath, head achy, nauseous and very tired. You may require a blood transfusion. Your hemoglobin maybe low following surgery. It is recommended that most people take an iron supplement for the month following surgery. Consult with your family doctor about this.

How you can help to prevent low blood and blood transfusion

- Get your body in shape for surgery and healing - follow the recommendations for healthy eating on pages 16–20.
- Ask your family doctor to check your complete blood count (CBC) at least 3 months before you come to the hospital and follow up with the results of your test. Ideally, your hemoglobin level should be in the high end of the normal range.
- Consult your family doctor about the need for iron, or an additional vitamin supplement.
- There are some medications available that may help stimulate your bone marrow to produce more red blood cells. Your doctor will advise you if this would be helpful in your case.
Harmful blood clots
Blood clots can develop in the deep veins during the first several weeks after surgery. People who already have problems with their heart or circulation, are inactive, overweight or have other health problems such as diabetes have a greater risk of developing these clots. Let your surgeon know before surgery if you have had a clot in the past.

How you can help to prevent harmful clots after surgery:

- Get up and move frequently. Every hour, pump your feet and ankles. Every hour, tighten and release the muscles in your legs and buttocks.
- Wear the leg sleeves (sequential compression devices) while you are in bed in the hospital if prescribed.
- Take the prescribed Low Molecular Weight Heparin (LMWH).

More on LMWH (blood thinners) Dalteparin/Nadropin
Low molecular weight heparin (LMWH) helps to prevent harmful blood clots. Most people will require injections of a LMWH (following hip replacement) for 10-35 days following the day of surgery. The number of days you require this medication depends on your risk and is decided by your surgeon. The nurses in hospital will teach you or your support person how to inject this medication so you can manage at home.

You may need to pay for all or part of this medication depending on your drug plan.

It is your responsibility to ensure that the prescription is filled. You will need to carefully read and follow all instructions for this medication.
Preventing Lung Complications
Lung complications such as fluid in the lungs or pneumonia may occur due to the anesthetic and prolonged bed rest.

- Do not eat or drink after midnight on the night before your surgery.
- Get up and move, change your position in bed frequently.
- **Take 10 big deep breaths and cough every hour on the days after your surgery.**
- Stop smoking! People who smoke are at high risk for lung complications after surgery.

Delirium after surgery
Sometimes older people go through a period of confusion or delirium after surgery. They may act or talk in ways that are not normal for them, for example, they may become forgetful, mixed up, and or see, hear and believe things that do not make sense. Delirium usually goes away in a few days but sometimes lingers for a few weeks. Delirium is usually due to more than one cause. Some common causes of delirium are: side effects of anesthetics and medications, lack of sleep, pain, infection, alcohol withdrawal, constipation and low oxygen levels. The health care team looks for and corrects the cause of the delirium whenever possible.

How you can help to prevent delirium

- Notify your nurse, surgeon or anesthetist if you had delirium or confusion with a previous hospital admission.
- Wear your glasses and hearing aids.
- Get up and moving as soon as possible.
- If you drink alcohol on a regular basis, you may be at risk for delirium related to **alcohol withdrawal** while in the hospital. For six weeks prior to surgery, limit your intake of alcoholic beverages to no more than one standard drink per day – 8 ounces of beer, 3 ounces of wine, or 1 ounce of spirits. Discuss any concerns about alcohol use with your family doctor.
**Infection**
Less than 1% of patients develop a wound infection after surgery. However, when infection occurs, it is a very serious complication that may require long-term intravenous antibiotics and possibly two extensive surgeries. Infections can start in your joint during surgery, in the hospital or when bacteria travel there from elsewhere in your body for example - from your throat, teeth, skin or urine. You are more likely to get an infection if you are not well nourished or if your immune system is not strong.

**How you can help to prevent infection:**
- Get your body in shape by eating healthy foods before and after your surgery.
- After surgery you will receive antibiotics through your intravenous.
- Wash your hands frequently
- Follow the directions carefully for caring for your incision and changing your dressing.
- Avoid people who have colds or infections.
- If you suspect you have any infection visit your doctor promptly to see if you require antibiotics.
- Notify your surgeon’s office if your surgery is within a few days and you suspect you have an infection (e.g. sore throat, infected cut, bladder infection, boil, etc.).
- If you are having a medical procedure, dental fillings, or any major dental work, tell your doctor or dentist that you’ve had a joint replacement. You may require antibiotics prior to the procedure.
Dislocation after hip replacement
Dislocation occurs when the components separate from one another or when the ‘ball comes out of the socket’. After surgery, the muscles and ligaments that normally support your joint in place have been stretched and weakened by surgery and require time to heal. While healing, they are weak. Movements such as crossing your legs, bending forward, sitting in a low chair, twisting or stooping put too much pressure on these healing muscles and ligaments. The ball may then pop out of the socket. The signs of dislocation are sudden, sharp severe pain and a shortened leg. If dislocation occurs you will need to come into the hospital and have your hip put back in place under anesthetic. After this you may require a cast or brace for six weeks.

How you can help to prevent dislocation:

- Carefully follow the activity guidelines and precautions provided to you and in this book.

- Obtain and use the equipment prescribed for you by the physical therapist and occupational therapist for at least 3 months after surgery.

Loosening and wear
Over time one or both of the components of the new joint may loosen. Loosening happens more quickly when the joint is used excessively or when the precautions are not followed carefully. A revision surgery is frequently necessary when loosening occurs.

How you can help to prevent loosening and wear:

- Carefully follow the activity guidelines and precautions provided to you in this book.
INSERT TAB HERE

‘During Your Hospital Stay’
DURING your Hospital Stay

Day of Surgery:

Before Surgery
- Go to the Admitting Desk in the hospital
- Bring all of your medicines with you, as directed by the Pre-Admission Clinic
- Ask friends or family to bring your labeled equipment to the hospital ward unless otherwise instructed
- To prepare for surgery, you will change into a hospital gown and a nurse will start an intravenous line (IV) in your arm

During Surgery: Anesthesia
Each hospital manages your anesthetic differently. Many people who have joint replacement surgery have spinal anesthetic. This is like the freezing you get at the dentist, except this freezing goes into your back and makes you numb from the chest down and stops you from feeling pain. The anesthesiologist will make sure you are comfortable throughout the surgery, giving you medicine through your IV that makes you relaxed and sleepy. If you have a spinal anesthetic, you will not be able to move your legs for up to 4 hours after surgery.

Some people receive general anesthetic. This is a combination of drugs that will make you unconscious during the surgery.

Bring any questions you have about anesthesia to your Pre-Admission Clinic appointment.

After Surgery: Recovery Room
- You are moved from the operating room to the recovery room
- You may have oxygen by mask for a short time or nasal oxygen overnight
- The nurse monitors your vital signs, including your pulse and blood pressure
• You will have pain medicine on a regular basis. **Tell your nurse if you are in pain.**
• Some people may have compression devices placed on their lower legs. Compression devices gently squeeze your calf muscle to help with blood circulation.
• The stay in the Recovery Room is usually 1 to 3 hours

**After Surgery: The Hospital Ward**
• Once you are medically stable, you are transferred to the orthopaedic ward
• You will be told how much weight you can put on your new joint (weight bearing status). This can vary for each individual. Often people are told to weight bear as tolerated, but you may have a weight-bearing restriction such as partial, feather, or non-weight bearing on your surgical leg
• The physical therapist, nurse or occupational therapist will help you to sit on the side of your bed, stand and walk the day of surgery. You will continue to increase your mobility and learn to move independently.
• The nurse will assess you for pain and nausea
• Your nurses will be regularly checking your blood pressure, temperature, oxygen levels and the colour, warmth, movement and sensation of your operated leg.
• You will use a commode/raised toilet seat during the day and if you are having difficulty getting out of bed, a bedpan/urinal at night. When you are able, you will walk to the bathroom. Some people who have spinal anesthetic find it difficult to urinate and will need a catheter (a temporary tube placed in your bladder to empty it). This catheter will be removed as soon as possible after your surgery.
• You may have blood work
• You may have an intravenous (IV) in your arm to give you fluids and medications. Antibiotics will be given to prevent infection. Your IV will be removed when your antibiotics are finished and you are eating and drinking well, usually the day after your surgery.
• It is possible that you may require a blood transfusion.
• You may be started on a blood thinning medicine (e.g. heparin
injections) after surgery to help reduce your risk of developing a blood clot.

- Your nurses will remind or help you to change your position from your back to your non-operated side while in bed. This will prevent problems with your skin and will help your breathing. **ALWAYS KEEP PILLOWS BETWEEN YOUR LEGS WHILE IN BED - for the next three months.**
- You may have compression stockings on to prevent blood clots in your legs.
- Your nurses will change your dressing and teach you how to care for your incisions.

**Exercise**

- Take at least 10 big deep breaths and cough to exercise and clear your lungs every hour. If you feel congested, do this more often.
- Pump your ankles to improve circulation. Do this every time you think of it, at least every hour.
- Squeeze your thigh muscles. Hold for 6 seconds, then release. Squeeze your buttock muscles. Hold for 6 seconds, then release
- Your physical therapist will instruct you on specific exercises and provide you with your specific home exercise program.

**Pain Control**

- It is important that you take pain medication regularly while you have pain so that you are able to move and sleep. Your pain will be worse in the first few days, gradually subsiding over 6 weeks to 3 months. This will prevent complications and will help you heal. Pain medication may be given to you using one or more options including:
  1. by mouth.
  2. a patient controlled pain pump through your intravenous,
  3. an epidural catheter (small tube) placed in your lower spine,
  4. through a pain pump with a small tube into your surgical area.

If your pain medication is not working, please **tell your nurse.**

- Constipation may be a problem after surgery so to prevent it, you will
be given stool softeners and laxatives as required when you are able to eat.

- Review the pain management section.

**Diet**

- After your surgery, you will begin drinking and then eating. You should try to eat. If you have an upset stomach, please **tell your nurse** so that treatment can be provided.

**Preparing to go home**

- The occupational therapist may review the equipment and devices that will help you to function safely with your day-to-day activities at home. This will happen on Day 1, or Day 2 after your surgery.
- Your team will confirm that you have arranged for someone to:
  - help you at home.
  - drive you home from the hospital.
  - pick up your prescriptions (if not being delivered to you in hospital).
- The physical therapist will practice walking and doing stairs with you to ensure that you are safe to manage at home. Follow-up physical therapy instructions will be discussed.
- Before you leave hospital please ensure that you have: your belongings, and your prescriptions for LMWH and pain medication.
Length of Hospital Stay Guidelines

Your time in the hospital is short. Your healthcare team will work with you to make sure you are medically stable and able to manage daily tasks to go home. Before surgery, it is important to make arrangements to have someone pick you up from the hospital when going home. Discharge time is usually in the morning.

Be aware that you may go home sooner than expected. Ensure your travel arrangements are flexible.

Total Hip Replacement = 3 nights or LESS
(includes resurfacing and revision surgery)

For example: If you have surgery on Monday and are spending 3 nights in the hospital, you will probably be sent home on Thursday morning.

You are ready to leave hospital when you:

- Are medically stable: your vital signs are normal, you are able to empty your bladder, you have no vomiting, or dizziness, your pain is controlled, and you are able to tolerate food.
- Able to manage daily activities without harming or dislocating your new joint e.g. dressing with essential garments, bathing, toileting.
- Able to mobilize independently as necessary: i.e. can manage stairs if required, can get into or out of a flat bed.
- Able to tolerate sitting for short periods
‘After – Caring for Yourself at Home’
AFTER – Caring for yourself at home

Here are some guidelines to follow at home to help you recover safely and comfortably. **If there is a difference between this information and specific information from your surgeon, family doctor or orthopaedic team, follow the instructions specified by your surgeon/doctor/team.**

**Care of your incision**

You may have some drainage from your incision for the week while it is healing. A small amount of drainage is not uncommon or harmful. Your nurse will provide you with specific dressing instructions should you go home with a wound that has drainage. It is important that the bandage is changed once a day (or more frequently if needed) until the drainage stops.

Once the drainage stops, your incision may be left uncovered. If you find it more comfortable, or are concerned about the staples catching, a strip dressing may be applied. These dressings can be purchased at a drug store.

Inspect your incision once daily for any redness or drainage. See chart below for the signs and symptoms of infection. Call your doctor or health care provider if you think there is an infection.

If you have staples, they will be removed 8 - 14 days after your surgery. You may arrange this with your surgeon, family doctor, a nurse or other qualified health care provider e.g. physiotherapist. If you have steristrips, leave them alone, as they will eventually fall off.

Many surgeons let you shower while the staples are still in, if the incision is healing well. If you are allowed to shower and are using a dressing, remove the dressing, shower, pat dry and then apply a new dressing. Otherwise just shower and pat dry.
DO NOT soak or keep your incision in water (e.g. pool or hot tub) until a minimum of 48 hours after your staples have been removed, the incision has completely closed and there is no drainage or scabs.

Changing your dressing

1. Wash your hands well before and after
2. Remove any tape and the old dressing and discard. Do NOT remove the steri-strips.
3. Inspect the incision for redness or drainage
4. If you have been directed to, clean the area by around the incision with 2x2 gauze soaked in normal saline (can be bought at local drug store). Pat the area dry with a clean towel.
5. Apply a new dressing over the incision.
6. DO NOT APPLY CREAMS, OINTMENTS, ETC TO THE INCISION WHILE IT IS HEALING UNLESS YOU HAVE BEEN INSTRUCTED SPECIFICALLY TO BY YOUR DOCTOR, NURSE OR THERAPIST.

Signs and Symptoms of Infection

- Color – the skin appears red (as though sunburnt)
- Heat – the area around the incision is hot
- Swelling – the incision and area is swollen
- Discharge amount – lots, soaking through dressing and clothes
- Discharge type – may be thick and cloudy with a white or yellowish/green colour
- Pain – skin or incision hurts a lot and all the time – whole leg may hurt
- Fever - A persistent increase in your temperature above 38°C or 101°F
- Smell – a bad odor at the incision/drain site

Notify your family doctor or surgeon immediately if you think you have an infection
Preventing Pain
The pain related to your surgery is worse in the first few days and will gradually subside over the 6 weeks to 3 months following surgery. These are some ways to keep yourself comfortable.

Take Pain Medication
- Follow the instructions provided with your medication and in the pain management section.
- Do not wait until the pain is bad before you take pain medication, as it will take longer and take more medication to get the pain under control.
- After the first few days at home as your pain decreases, gradually reduce your prescription medications and replace with extra strength acetaminophen (Tylenol) during the day.
- Do not push yourself beyond your limit. Rest when you feel tired and uncomfortable.
- If you find your exercises are painful, take pain medication and wait 30 minutes before exercising and decrease the number of repetitions of each exercise. You may also wish to have pain medication before having your staples taken out.
- **If in doubt, consult with your physical therapist and/or surgeon.**
- Distract yourself from pain (i.e. listen to music, visit with friends, write letters, watch TV, etc.)
- Use relaxation exercises such as breathing exercises. A warm shower may help you if your staples are out and there is no drainage from your incision.
- Lie down, elevate your limb and place an ice pack wrapped in a towel on the painful area for 15 minutes up three times a day. A packet of frozen vegetables wrapped in a towel works well too.
- Think positively. You will become more and more comfortable with time.
Swelling
You can expect to have some swelling in the operated leg for a number of weeks after surgery. To help reduce the swelling:

- Elevate your leg (discuss with your therapist)
- Do not sit for more than 30 minutes at a time
- Pump your feet and ankles to keep your circulation going
- Ice your hip for 10-15 minutes after activity and at least 3-4 times per day

Signs and Symptoms of a Blood Clot (Deep Vein Thrombosis)

- Color – changes in color, red or discolored
- Heat – increase in warmth in part or all of your leg
- Swelling – dramatic increase in swelling in a short period of time in your operated leg, particularly if you haven’t been active
- Pain – sudden severe increase in pain, especially calf pain that is worse when standing or walking
- Tenderness – calf muscle is tender to the touch
- Shortness of breath or Chest pain – starts suddenly
- Fever - A persistent increase in your temperature above 38°C or 101°F

Notify your family doctor or surgeon immediately if you think you have a Blood Clot, especially if you have a sudden onset of chest pain or shortness of breath.

IF UNABLE TO CONTACT DOCTOR, GO TO THE NEAREST EMERGENCY DEPARTMENT
**Constipation**

Constipation can be a problem for people taking Morphine, Oxycodone, Dilaudid or Codeine. Take a preventative approach: drink plenty of fluids, eat a high fibre diet including bran and prunes and take laxatives and stool softeners as required.

Fiber supplements such as Fruit Lax or ‘Get up and Go cookies’ bulk up the stool making it easier to pass through the bowels.

Senna tea, Senakot tablets or glysennid tablets help the stool move along through the bowel. Glycerine or dulcolax suppositories will help to clear the lower bowel. It is important to follow instructions for your medications carefully to avoid side effects. Ask your physician, nurse or pharmacist if you have any questions. See your physician if you experience ongoing problems with constipation, nausea and vomiting.
Other medical or dental procedures
It is very important that you tell your dentist and other medical practitioners if you have had a joint replacement. Before you have procedures done, such as a minor surgery or dental work, you may be put on antibiotics to prevent getting an infection in your new joint.

Anemia (low blood count)
Your hemoglobin may be low following surgery. It is recommended that most people take an iron supplement for the month following surgery. Consult with your family physician about this.

Follow-up with Surgeon
Contact your surgeon’s office as soon as you get home to schedule a follow-up appointment for 6 weeks after your surgery, or as instructed by your surgeon.

Physical Therapy
You will be discharged from the hospital with a home exercise program. Continue to do these exercises as prescribed by the physical therapist until you begin therapy in an outpatient clinic, rehabilitation facility, private practice clinic or with a homecare therapist. If you require ongoing therapy, your rehabilitation program may last up to 8 weeks or more depending on your progress. The emphasis will initially be on regaining hip motion. Later your program will include exercises to strengthen the muscles supporting your hip and improve your walking pattern.

Additional exercises will be given to stretch tight muscles and other tissues, especially your flexor muscles on the front of your hip. Your balance and joint awareness will initially be poor after the surgery. Some exercises will help to restore your confidence in your hip and decrease your risk of losing your balance or falling. Whenever possible, the exercises will be functional and designed to address your individual self care, home care, mobility and leisure activity needs. If you have concerns about your ability to do specific daily activities, talk to your therapist.
General therapy guidelines
- do the exercises daily or as prescribed by your therapist
- continue to use your walking aid and assistive devices until advised not to by your therapist or surgeon
- gradually increase your walking distances during the initial six weeks
- increase or progress your exercises when advised by your therapist
- notify your therapist if any exercises increase your joint pain or stiffness

Mobility guidelines
Depending on the type of hip replacement you had and preferences of your surgeon, you will be given guidelines on how much weight you can place through your operated hip and what type of walking aids to use.

Revision Total Hip Replacement
You may be advised to use your crutches or walker for up to 12 weeks. After this period, full weight bearing is usually possible. At 12 weeks, you will also begin a more formal therapeutic exercise program. Your surgeon will give you more specific guidelines based on your individual situation.
Daily Activity Guidelines
A number of assistive devices and specific techniques can be used to make daily activities easier and safer following joint replacement surgery. Follow these suggestions for at least 3 months following total hip replacement unless advised otherwise by your surgeon or therapist.

Standing and Sitting

Choose a chair with a high seat height at least level with the back of your knee

To stand up....

- Move yourself to the front edge of the chair or toilet and keep your operated leg extended in front of you
- Slide your other foot back slightly and lean forward slightly while pushing yourself up using the arm rests, grab bars or other secure surface
- Make sure you feel steady before starting to walk

To sit down....

- Back up until you feel the back of your legs against the edge of the chair or toilet
- slide your operated leg forward, lean forward slightly and reach back for the arm rests, grab bars or other secure surface
- lower yourself slowly sliding your operated leg in front
- DO NOT sit on a regular toilet seat for the first 3 months. A raised seat of about 3”-4” is recommended for a person of average height. It may be easier to stand to use toilet paper to prevent too much bending and twisting at the hips.
Going up and down stairs

To go up stairs....

- hold onto the railing with one hand and put the crutches or cane in the other hand
- step up with your good leg and follow with your operated leg and walking aid
- if there is no railing, use a crutch under each arm or the cane on your non-operated side
- put your weight on the walking aid and step up with your good leg
- straighten your good leg and bring the walking aid and your operated leg up together

To go down stairs....

- hold onto the railing with one hand and place your crutches or cane on the stair below
- step down with your operated leg and follow with your good leg
- if there is no railing, use a crutch under each arm or the cane on your non-operated side
- place the walking aid on the stair below and follow carefully with the operated leg
- put your weight on the walking aid and step down with the good leg

Up with the good, down with the bad. Start with your non-operated leg when going upstairs. Start with your operated leg to go downstairs.

* After 3 months, you may be able to go up and down the stairs using alternating legs. Some people use the above methods indefinitely as they feel more stable and safe.
Bathing

To use the shower....

- if you have a walk-in shower, place a secure high shower chair or stool in your shower stall
- back up to the edge of the seat and reach back for the seat with one arm while holding onto a grab bar or other secure surface with the other hand
- slide your operated leg forward and sit down slowly
- use a hand held shower attachment
- dry off as best as possible before getting out of the shower
- use a non-slip bath mat inside and outside of the shower stall to prevent slipping on the wet surface
- use a regular walker to get into and out of the shower

To use the bathtub....

- use a secure raised bathboard or transfer bench, a hand held shower attachment and long handled aids
- back up to the edge of the seat and reach back for the seat with one arm while holding onto a grab bar or other secure surface with the other hand
- sit down slowly sliding your operated leg forward and slide back on the seat
- lift both legs together over the side of the tub using a leg lifter if necessary

* Initially it is a good idea to have someone assist or supervise your bathing to ensure that you are safe and comfortable. If you have questions about the set up of your shower or tub, or the installation of safety grab bars, discuss them with an occupational therapist in the hospital or a community therapist prior to having your surgery.
Getting dressed

- sit on a high bed or firm chair with arm rests
- with your operated leg extended forward, use a long-handed reacher, sock aid or shoe horn to put on your socks, pants and shoes
- you will be expected to try this technique in the hospital before going home so an occupational therapist can give you tips if you are having difficulty

Sleeping

- check that the top of your mattress is level with or above your knees.
- follow the guidelines for sitting and standing to get on and off your bed safely
- use 2 large pillows between your knees and ankles when sleeping on your back or your side
- when turning in bed, use a pillow between your knees to prevent your hip from crossing the midline
Getting in and out of a car

- have the car parked well away from the sidewalk or curb so you have room to maneuver
- if you are going home in a high vehicle, you may need a footstool to get into and out of the vehicle
- move the front passenger seat back as far as possible
- back up to the seat and place one hand on the dashboard and the other on the back of the seat
- lower yourself slowly and slide back across the seat until you can comfortably swing your legs into the car (try putting a plastic bag on the seat so you can slide easier)
- use a firm, raised cushion with a smooth surface on the car seat if you find the seat is too low
- reverse this process to get out of the car and have your walker or crutches ready when you stand up
- if you have concerns about your car transfer - discuss this with your therapist prior to leaving the hospital
General Activity Guidelines
For at least 3 months following your hip replacement surgery, you need to follow certain precautions to allow the supporting soft tissues to heal and prevent dislocation of your hip. Some correct and incorrect positions are illustrated below.

- Continue to exercise to improve your strength and progress your mobility.
- Continue to use any assistive devices or equipment recommended by your therapist. Some people continue to use raised toilet seats and cushions on chairs indefinitely. While you may not need a cane for walking around the house or short distances outside, it is useful to keep on hand for longer walks or in situations where you feel you may need the extra support.
Recreational Activity Guidelines

It is important to return to regular physical activity after your joint replacement. Light to moderate intensity activity done 4-7 days a week has numerous health benefits and will help to maintain good strength and mobility in your joint. Appropriate activities should be low impact, allow for periods of rest and not cause joint pain. Choose activities that have a minimal risk of injury or falling and do not require excessive range of motion. Consult with your orthopaedic surgeon and therapist about any sporting activities that you wish to do following your joint replacement. Following is a list of recommended activities, those you may be able to do with caution, and those to avoid.

**Recommended Activities:**
- walking, using a treadmill (shock absorbing footwear)
- swimming, water aerobics, deep water running
- recreational cycling, using a stationary bike
- golf (using a cart)
- traditional dancing
- no impact aerobic dance (e.g. Joint Works)

**Activities you may be able to do with caution:**
(discuss with your surgeon)
- hiking easy trails
- downhill & cross country skiing
- modern dancing
- doubles tennis (avoid running & twisting)
- using a step machine
- repetitive lifting exceeding 20 kg
- lawn bowling (operated leg back)
- gardening/yardwork
Activities to avoid:
- running, jogging
- jumping (skipping rope)
- singles tennis, badminton, squash
- skating (inline and ice) and skiing
- contact sports (football, soccer, hockey)
- high impact sports (basketball, volleyball)
- horseback riding

Living With Your New Joint
With good care and effort to protect your joint replacement from unnecessary stresses, your new joint should last at least 15 years. To ensure the best possible outcomes, there are some long term guidelines for you to follow.

Consulting with your Orthopaedic Surgeon
Make an appointment with your surgeon if any problems arise that concern you such as:
- pain in your hip, knee or leg that lasts more than a few days
- you begin to limp or cannot bear weight through your operated leg
- your strength decreases and the operated hip feels “insecure”
- you notice a loss in range of motion in the hip
- a painful “clicking” develops (painless clicking is common and of less concern)
- your operated leg suddenly feels shorter
- signs and symptoms of infection
Avoiding falls
Joint replacement surgery will affect your leg strength, balance and joint awareness. You will be at greater risk for tripping and falling. To avoid falls, follow the suggestions listed under “Getting your home in shape” and the following guidelines:

- wear non-skid, supportive footwear at all times
- use handrails when available, especially on stairs
- do not lean against unstable furniture
- know if the side effects of your medications can cause drowsiness or dizziness
- wear your eye glasses if needed
- always get up slowly after sitting or lying down and ensure you have your balance before taking a step

Resuming sexual activity
Resume sexual activity when you are comfortable. Most patients find they can enjoy intercourse comfortably and safely 4-6 weeks after surgery. Some modifications may be necessary to avoid pain. Care must be taken in the first 3 weeks to ensure that there is no interference with wound healing. Discuss any concerns with your doctor or therapist. Some recommended positions are:

- Lying on back with legs apart and operated leg straight or slightly bent,
- side lying with operated leg on top, bent slightly at the hip and knee and supported on a pillow or partner’s thigh (partner also in sidelying)

You can also ask your surgeon or health professional about resuming sexual activity post hip replacement
Driving a car
In general driving your vehicle within 6 weeks of your surgery is not recommended. Driving requires sufficient hip flexion so you can sit comfortably and good muscle control to ensure adequate reaction time for braking and accelerating. This will vary based on the type of car (standard vs automatic) and whether the right or left leg is affected. Decrease medication use as the pain decreases. Check with your surgeon to determine your readiness to resume driving. Avoid driving or sitting as a passenger for extended periods (greater than 2 hours at a time) after your joint replacement for approximately 6 weeks.

Airport metal detecting devices
Your new joint may set off metal detecting devices such as those in airports and some buildings. The sensitivity of these devices varies and your implant is unlikely to set off most modern devices. Tell the security officer that you have a joint replacement and a hand held wand passed over your hip area will confirm its presence. Ask your doctor for a letter stating that you have a joint replacement if you are concerned about this when traveling.
INSERT TAB HERE

‘Resources’
Health Care Resources

Fibre and Your Health*

Dietary fibre for your health

Dietary fibre is important for your health. However, most Canadians only get half the fibre they need.

Dietary fibre helps your bowels stay healthy and regular. It can lower blood cholesterol and keep blood sugars more stable. Dietary fibre may also help prevent colon cancer.

If you want to lose weight, eating lots of high fibre foods will help you feel full for a longer time.

Aiming high for dietary fibre

<table>
<thead>
<tr>
<th></th>
<th>Age</th>
<th>Fibre</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>19-50 years</td>
<td>38 grams (g)</td>
</tr>
<tr>
<td></td>
<td>51-70+ years</td>
<td>30 grams (g)</td>
</tr>
<tr>
<td>Female</td>
<td>19-50 years</td>
<td>25 grams (g)</td>
</tr>
<tr>
<td></td>
<td>51-70+ years</td>
<td>21 grams (g)</td>
</tr>
</tbody>
</table>

Caution: Some people with intestinal or bowel diseases may not be able to eat large amounts of fibre. Check with your doctor or dietitian.

Fitting in the fibre

Here are some easy ways to increase fibre in your diet.

- A good way to start the day is to have a high fibre cereal for breakfast.

- Each day, choose high fibre foods for meals and snacks, including 5-10 servings or 3-5 cups of fruits and vegetables.
● Eat plenty of whole fruits and vegetables, which are higher in fibre than juice.

● Add lentils or cooked beans to your soup, casserole, or salad.

● Buy high fibre breads, brown rice, and whole wheat pasta.

● Add dried fruits, nuts or seeds to yogurt, salads, or muffins.

● When you add fibre to your diet, be sure to add fluid as well.

● Add fibre to your diet slowly for fewer problems with gas and cramping.

**Tips for reading food labels**

● Check the fibre *claims and content* on the label. Look for labels that say *high* or *very high source of fibre*, which means the food must have at least four to six grams of fibre per serving.

● Check the *Nutrition Facts*; it shows the number of grams of fibre in a serving.

● Check the *Ingredients*. The largest amounts of ingredients are listed first. Look for ingredients such as bran, whole wheat, oatmeal, or rye flour.

● Enriched wheat flour and unbleached flour are both refined white flour, and are not good sources of fibre. “Multigrain” may just mean that a small amount of whole grain has been added to enriched flour.
**Fibre Content of Foods**  
*(Serving is ½ cup or 125 mL unless otherwise noted)*

<table>
<thead>
<tr>
<th>10 grams or more per serving</th>
<th>Cereals:</th>
</tr>
</thead>
<tbody>
<tr>
<td>● Kellogg’s Bran Buds® with Psyllium</td>
<td></td>
</tr>
<tr>
<td>● General Mills Fibre 1®</td>
<td></td>
</tr>
<tr>
<td>● Kellogg’s All Bran®</td>
<td></td>
</tr>
<tr>
<td>● Post 100% Bran®</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>6-9 grams per serving</th>
<th>Cereals:</th>
</tr>
</thead>
<tbody>
<tr>
<td>● Nature’s Path Blueberry Almond Muesli®</td>
<td></td>
</tr>
<tr>
<td>● Kellogg’s Raisin Bran® <em>(1 cup or 250 mL)</em></td>
<td></td>
</tr>
<tr>
<td>● Kellogg’s Mini Wheats® <em>(25 biscuits)</em></td>
<td></td>
</tr>
<tr>
<td><strong>Other foods:</strong></td>
<td></td>
</tr>
<tr>
<td>● Flax seeds <em>(2 Tbsp or 30 mL)</em>, ground</td>
<td></td>
</tr>
<tr>
<td>● Canned baked beans with tomato sauce, black beans, garbanzo beans, kidney beans</td>
<td></td>
</tr>
<tr>
<td>● Dried figs <em>(5)</em></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>4-5 grams per serving</th>
<th>Cereals:</th>
</tr>
</thead>
<tbody>
<tr>
<td>● Kellogg’s All Bran Flakes® <em>(1 cup or 250 mL)</em></td>
<td></td>
</tr>
<tr>
<td>● Post Raisin Bran® <em>(3/4 cup or 175 mL)</em></td>
<td></td>
</tr>
<tr>
<td>● Nature’s Path Heritage Muesli with Raspberries and Hazelnuts®</td>
<td></td>
</tr>
<tr>
<td>● Quaker Corn Bran Squares® <em>(1 cup or 250 mL)</em></td>
<td></td>
</tr>
<tr>
<td>● Post Grape-Nuts®</td>
<td></td>
</tr>
<tr>
<td>● Post Granola Raisin Bran® <em>(3/4 cup or 175 mL)</em></td>
<td></td>
</tr>
<tr>
<td>● Post Original Shredded Wheat Spoon Size® <em>(3/4 cup or 175 mL)</em></td>
<td></td>
</tr>
<tr>
<td>● Quaker Life Oat Bran® <em>(3/4 cup or 175 mL)</em></td>
<td></td>
</tr>
<tr>
<td>● Post Shreddies® <em>(3/4 cup or 175 mL)</em></td>
<td></td>
</tr>
<tr>
<td>● Cooked Red River® cereal <em>(3/4 cup or 175 mL)</em></td>
<td></td>
</tr>
<tr>
<td><strong>Other foods:</strong></td>
<td></td>
</tr>
<tr>
<td>● Cooked whole wheat spaghetti <em>(1 cup or 250 mL)</em></td>
<td></td>
</tr>
<tr>
<td>● Cooked lentils</td>
<td></td>
</tr>
<tr>
<td>● Cooked pearl barley <em>(1 cup or 250 mL)</em></td>
<td></td>
</tr>
<tr>
<td>● Pumpkin/squash seeds <em>(2 Tbsp or 30 mL)</em></td>
<td></td>
</tr>
<tr>
<td>● Baked potato with skin <em>(1 medium)</em>, peas</td>
<td></td>
</tr>
<tr>
<td>● Pear, raw with skin <em>(1)</em>, mango <em>(1)</em>, blackberries, dates <em>(5)</em></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>2-3 grams per serving</th>
<th>Cereals:</th>
</tr>
</thead>
<tbody>
<tr>
<td>● Cooked oat bran <em>(3/4 cup or 175 mL)</em></td>
<td></td>
</tr>
<tr>
<td>● Raw wheat bran <em>(2 Tbsp or 30 mL)</em></td>
<td></td>
</tr>
<tr>
<td>● Post Original Shredded Wheat® <em>(1 biscuit)</em></td>
<td></td>
</tr>
<tr>
<td>● Cooked oatmeal <em>(3/4 cup or 175 mL)</em></td>
<td></td>
</tr>
<tr>
<td><strong>Other foods:</strong></td>
<td></td>
</tr>
<tr>
<td>● Cooked brown rice</td>
<td></td>
</tr>
<tr>
<td>● Whole wheat bread <em>(1 slice)</em></td>
<td></td>
</tr>
<tr>
<td>● Pine nuts, peanut butter, peanuts, almonds, sunflower seeds, soy nuts <em>(2 Tbsp or 30 mL)</em></td>
<td></td>
</tr>
<tr>
<td>● Cooked split peas</td>
<td></td>
</tr>
<tr>
<td>● Sweet potato with skin removed <em>(1 medium)</em>, Brussels sprouts, mixed vegetables, parsnips, spinach, broccoli, corn, carrots, winter squash, green/yellow beans</td>
<td></td>
</tr>
<tr>
<td>● Raspberries, prunes <em>(5)</em>, apple with skin <em>(1)</em>, canned pears, kiwifruit <em>(1)</em>, stewed rhubarb, banana <em>(1)</em></td>
<td></td>
</tr>
</tbody>
</table>
Get Up and Go Cookie Recipe

½ cup margarine or butter
1 cup brown sugar
½ cup prune puree
1 egg
1 cup applesauce - any flavour
2 cups all bran cereal
1½ cups flour
½ teaspoon baking soda and 1 teaspoon of cinnamon or spice you like

Optional: ½ to 1 cup raisins, or chocolate chips, sunflower seeds, nuts, whatever you like in cookies.

Directions: In a large bowl, cream margarine with sugar. Add egg, then prune puree, then applesauce and mix well. Add dry ingredients. Mix well. Drop by spoonfuls onto 3 cookie sheets - 12 cookies a sheet. Bake in 350° oven for about 15 minutes. Cool on pans for a few minutes and then remove. Freeze cookies and start with eating 2 cookies a day.

Prune puree: a 375 gram bag = about 50 prunes. Put in small pot with 1 cup of water. Heat on stove top until hot. Cool and mash. Store unused puree in fridge. You can add grated lemon rind while cooking for added flavour. Or mash pitted prunes from can with some of the juice Or use baby food prune puree.

Each cookie = 80.6 calories, 2.8 gram of fat, 1.67 grams of fibre per cookie.
Food Sources of Calcium and Vitamin D*

What is calcium?

Calcium is one of the many minerals that you need to be healthy. Calcium is very important to ensure strong, healthy bones and teeth. It also helps muscles and nerves to work properly. Calcium may help you to control your weight and blood pressure. Calcium may play a role in preventing colon cancer. Limit your coffee and caffeine intake to 4 cups or less each day as caffeine takes calcium out of your body.

How much calcium do you need?

<table>
<thead>
<tr>
<th>Age</th>
<th>Recommended Dietary Allowance (RDA)</th>
</tr>
</thead>
<tbody>
<tr>
<td>19-50 years males and pre-menopausal females</td>
<td>1,000 mg/day</td>
</tr>
<tr>
<td>51-70+ years males and females</td>
<td>1,500 mg/day</td>
</tr>
</tbody>
</table>

What foods contain calcium?

Dairy foods are very high in calcium, especially milk, yogurt and cheese. Other good sources include calcium-enriched orange, rice beverages, and soy beverages. For more ideas about where to find calcium in foods, look at the Food Sources of Calcium list below.

What is Vitamin D?

Vitamin D helps your body to absorb calcium. Only a few foods have vitamin D. Good sources of vitamin D are fortified foods and milk, soy beverages, and margarine (check the Nutrition Facts on these foods). Fish, liver, and egg yolk are foods that naturally contain vitamin D. If you do not eat vitamin D rich foods often, you may want to consider taking a vitamin D supplement.
Most multiple vitamin mineral supplements contain vitamin D.

### Food Sources of Vitamin D

<table>
<thead>
<tr>
<th>Food</th>
<th>Serving</th>
<th>Vitamin D</th>
</tr>
</thead>
<tbody>
<tr>
<td>Milk</td>
<td>1 cup</td>
<td>100 IU</td>
</tr>
<tr>
<td>Fortified rice or soy beverage</td>
<td>1 cup</td>
<td>100 IU</td>
</tr>
<tr>
<td>Fortified margarine</td>
<td>2 tsp</td>
<td>53 IU</td>
</tr>
<tr>
<td>Salmon, canned, pink</td>
<td>3 oz</td>
<td>530 IU</td>
</tr>
<tr>
<td>Tuna, canned, light</td>
<td>3 oz</td>
<td>200 IU</td>
</tr>
<tr>
<td>Egg, whole</td>
<td>1 large</td>
<td>26 IU</td>
</tr>
</tbody>
</table>

**How much Vitamin D do you need?**

<table>
<thead>
<tr>
<th>Age</th>
<th>Recommended Vitamin D</th>
</tr>
</thead>
<tbody>
<tr>
<td>19-50 years males and females</td>
<td>400 IU/day</td>
</tr>
<tr>
<td>over 50 years males and females</td>
<td>800 IU/day</td>
</tr>
</tbody>
</table>

**Eating Well with Canada’s Food Guide** recommendations encourage adults who are over the age of 50 to take 400 IU of a vitamin D supplement as well as the vitamin D from two servings (2 cups) of milk each day.

**What if you don’t eat dairy foods?**

Every day, choose a variety of foods from the Food Sources of Calcium list on the following table. Plan your food choices carefully. If you find it difficult to get the recommended amounts of calcium and vitamin D from foods, a combination of food sources and supplements is recommended.
## Food Sources of Calcium (milligrams)

<table>
<thead>
<tr>
<th>Food Type</th>
<th>Portion</th>
<th>mg</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Dairy Foods</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Milk, with added calcium</td>
<td>1 cup</td>
<td>420</td>
</tr>
<tr>
<td>Milk, whole, 2%, 1% skim</td>
<td>1 cup</td>
<td>300</td>
</tr>
<tr>
<td>Yogurt, low fat, plain</td>
<td>¾ cup</td>
<td>300</td>
</tr>
<tr>
<td>Cheese, processed slices</td>
<td>2 slices</td>
<td>265</td>
</tr>
<tr>
<td>Yogurt, fruit bottom</td>
<td>¾ cup</td>
<td>250</td>
</tr>
<tr>
<td>Processed cheese spread</td>
<td>3 Tbsp</td>
<td>250</td>
</tr>
<tr>
<td>Cheese, hard</td>
<td>1 oz</td>
<td>240</td>
</tr>
<tr>
<td>Milk, evaporated</td>
<td>¼ cup</td>
<td>165</td>
</tr>
<tr>
<td>Cottage cheese</td>
<td>¼ cup</td>
<td>120</td>
</tr>
<tr>
<td>Frozen yogurt, soft serve</td>
<td>½ cup</td>
<td>100</td>
</tr>
<tr>
<td>Ice cream</td>
<td>½ cup</td>
<td>85</td>
</tr>
<tr>
<td><strong>Beans and Bean Products</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Soy cheese substitutes</td>
<td>1 oz</td>
<td>0-200</td>
</tr>
<tr>
<td>Tofu, firm, made with calcium sulphate</td>
<td>3 ½ oz</td>
<td>125</td>
</tr>
<tr>
<td>White beans</td>
<td>½ cup</td>
<td>100</td>
</tr>
<tr>
<td>Navy beans</td>
<td>½ cup</td>
<td>60</td>
</tr>
<tr>
<td>Black turtle beans</td>
<td>½ cup</td>
<td>50</td>
</tr>
<tr>
<td>Pinto beans, chickpeas</td>
<td>½ cup</td>
<td>40</td>
</tr>
<tr>
<td><strong>Nuts and Seeds</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Almonds, dry roast</td>
<td>¼ cup</td>
<td>95</td>
</tr>
<tr>
<td>Whole sesame seeds (black or (white)</td>
<td>1 Tbsp</td>
<td>90</td>
</tr>
<tr>
<td>Tahini(sesame seed butter)</td>
<td>1 Tbsp</td>
<td>63</td>
</tr>
<tr>
<td>Brazil, hazelnuts</td>
<td>¼ cup</td>
<td>55</td>
</tr>
<tr>
<td>Almond butter</td>
<td>1 Tbsp</td>
<td>43</td>
</tr>
<tr>
<td><strong>Meats, Fish, and Poultry</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sardines, canned</td>
<td>3 ½ oz / 8 med</td>
<td>370</td>
</tr>
<tr>
<td>Salmon, canned with bones</td>
<td>3 oz</td>
<td>180</td>
</tr>
<tr>
<td>Oysters, canned</td>
<td>½ cup</td>
<td>60</td>
</tr>
<tr>
<td>Shrimp, canned</td>
<td>½ cup</td>
<td>40</td>
</tr>
<tr>
<td><strong>Vegetables (measures = cooked vegetables)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Food Type</strong></td>
<td><strong>Portion</strong></td>
<td><strong>mg</strong></td>
</tr>
<tr>
<td>-------------------------------</td>
<td>-------------</td>
<td>--------</td>
</tr>
<tr>
<td>Turnip greens</td>
<td>½ cup</td>
<td>95</td>
</tr>
<tr>
<td>Okra, frozen</td>
<td>½ cup</td>
<td>75</td>
</tr>
<tr>
<td>Chinese cabbage/bok choy</td>
<td>½ cup</td>
<td>75</td>
</tr>
<tr>
<td>Kale</td>
<td>½ cup</td>
<td>50</td>
</tr>
<tr>
<td>Mustard greens</td>
<td>½ cup</td>
<td>50</td>
</tr>
<tr>
<td>Chinese broccoli (gai lan)</td>
<td>½ cup</td>
<td>44</td>
</tr>
<tr>
<td>Rutabaga</td>
<td>½ cup</td>
<td>40</td>
</tr>
<tr>
<td>Broccoli</td>
<td>½ cup</td>
<td>35</td>
</tr>
<tr>
<td><strong>Fruit</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Orange</td>
<td>1 med</td>
<td>55</td>
</tr>
<tr>
<td>Dried figs</td>
<td>2 med</td>
<td>54</td>
</tr>
<tr>
<td><strong>Non-Dairy Drinks</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Calcium enriched orange juice</td>
<td>1 cup</td>
<td>300</td>
</tr>
<tr>
<td>Fortified rice beverage</td>
<td>1 cup</td>
<td>300</td>
</tr>
<tr>
<td>Fortified soy beverage</td>
<td>1 cup</td>
<td>300</td>
</tr>
<tr>
<td>Regular soy beverage</td>
<td>1 cup</td>
<td>20</td>
</tr>
<tr>
<td><strong>Grains</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Amaranth, raw</td>
<td>½ cup</td>
<td>150</td>
</tr>
<tr>
<td>Whole wheat flour</td>
<td>1 cup</td>
<td>40</td>
</tr>
<tr>
<td><strong>Other</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Brown sugar</td>
<td>1 cup</td>
<td>180</td>
</tr>
<tr>
<td>Blackstrap molasses</td>
<td>1 Tbsp</td>
<td>170</td>
</tr>
<tr>
<td>Regular molasses</td>
<td>1 Tbsp</td>
<td>40</td>
</tr>
<tr>
<td><strong>Asian Foods</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sea cucumber, fresh</td>
<td>3 oz</td>
<td>285</td>
</tr>
<tr>
<td>Soy bean curd slab, spiced, semisoft</td>
<td>3 oz</td>
<td>269</td>
</tr>
<tr>
<td>Shrimp, small, dried</td>
<td>1 oz</td>
<td>167</td>
</tr>
<tr>
<td>Dried fish, smelt</td>
<td>2 Tbsp</td>
<td>140</td>
</tr>
<tr>
<td>Seaweed, dry (hijiki)*</td>
<td>10 gram</td>
<td>140</td>
</tr>
<tr>
<td>Seaweed, dry (agar)</td>
<td>10 gram</td>
<td>76</td>
</tr>
<tr>
<td>Lily flower, dried</td>
<td>¼ cup</td>
<td>70</td>
</tr>
<tr>
<td>Soy bean milk film, stick shape</td>
<td>3 oz</td>
<td>69</td>
</tr>
<tr>
<td>Fat-choy, dried</td>
<td>¼ cup</td>
<td>50</td>
</tr>
<tr>
<td>Food Type</td>
<td>Portion</td>
<td>mg</td>
</tr>
<tr>
<td>-----------------------------------------</td>
<td>---------</td>
<td>-----</td>
</tr>
<tr>
<td>Oyster, dried</td>
<td>3</td>
<td>45</td>
</tr>
<tr>
<td>Soy bean milk film, dried</td>
<td>3 oz</td>
<td>43</td>
</tr>
<tr>
<td>Boiled bone soup</td>
<td>½ cup</td>
<td>negligible</td>
</tr>
</tbody>
</table>

*Laver, nori, and wakame seaweeds are low in calcium*

<table>
<thead>
<tr>
<th>Native Foods</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Oolichan, salted, cooked</td>
<td>3 oz</td>
<td>210</td>
</tr>
<tr>
<td>Fish head soup</td>
<td>1 cup</td>
<td>150</td>
</tr>
<tr>
<td>Indian ice cream (whipped soapberries)</td>
<td>½ cup</td>
<td>130</td>
</tr>
</tbody>
</table>

For more health information


For more BC HealthFile topics visit www.bchealthguide.org/healthfiles/index.stm.

For more nutrition information and to speak with a registered dietitian, call Dial-A-Dietitian at 1-800-667-3438.

Call the BC Healthlink to speak to a registered nurse, available 24-hours every day: call toll-free 811

Reference: 2002 Clinical Practice Guidelines for the Diagnosis and Management of Osteoporosis in Canada CMAJ 2002; 167(10 suppl): S1-S34
Iron and You*

Why is iron important?

Without enough iron, you will get tired more easily and be less able to resist infections.

How much iron do you need?

That depends on your age and your gender.

### Daily Recommended Dietary Allowance (RDA) for Iron

<table>
<thead>
<tr>
<th>Age</th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>19-49 yr</td>
<td>8 mg</td>
<td>18 mg</td>
</tr>
<tr>
<td>Over 50 yr</td>
<td>8 mg</td>
<td>8 mg</td>
</tr>
</tbody>
</table>

Do some people need more iron than the RDA?

Yes. Vegetarians, frequent blood donors, and post-menopausal women taking hormone replacement therapy who are still menstruating may need more iron than the Recommended Dietary Allowance (RDA).

Vegetarians

Vegetarians need more iron in their diets than non-vegetarians. Iron from plant foods is not as well absorbed as it is from animal foods. Vegetarians should choose several iron-rich plant foods daily.

### Iron Recommendations for Vegetarians

<table>
<thead>
<tr>
<th>Vegetarian men</th>
<th>14 mg per day</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vegetarian women</td>
<td>33 mg per day</td>
</tr>
</tbody>
</table>

For more information about vegetarian eating, call Dial-A-Dietitian (1-800-667-3438).
How do you get enough iron?

Follow Canada’s Food Guide, including 2-3 servings of meat or meat alternatives, a variety of fruits and vegetables, and whole and/or enriched grains each day.

There are two types of iron found in foods: **heme** iron and **non-heme** iron. Heme iron is better absorbed than non-heme iron. Meat, fish and poultry contain both types of iron. Grains, dried beans and lentils, vegetables, fruits, nuts and seeds contain non-heme iron only.

How can you get the most iron from food?

The amount of iron you absorb from food depends on how much iron you already have stored in your body. People with low iron levels absorb more iron. Whether the iron in the food you eat is heme iron or non-heme iron also makes a difference.

Heme iron is the most well absorbed kind of iron. Non-heme iron needs a little help to be well absorbed. Eating certain foods at the **same time** as you eat non-heme iron-containing food will help your body to absorb the non-heme iron. The following foods have this effect:

- Foods rich in Vitamin C (good sources include cantaloupe, honeydew, grapefruit, kiwi fruit, oranges, papaya, mango, most berries, pineapple, citrus juices, Vitamin C enriched juices, broccoli, Brussels sprouts, cabbage, cauliflower, kale, peppers, potatoes and tomatoes.)

- Meat, fish and poultry.

Eat **Vitamin C** rich foods at each meal to get the most from your non-heme iron-containing foods each day.

Cook with cast-iron or stainless steel cookware to increase the amount of non-heme iron in foods.
Drink tea or coffee one hour after meals, rather than with meals. These beverages can reduce the amount of non-heme iron absorbed from foods.

Examples of food combinations that help get the most iron from foods:

- Split pea soup (non-heme iron source) with a small amount of ham (heme iron source)
- Iron fortified breakfast cereal (non-heme iron source) with an orange or kiwi fruit (Vitamin C source)
- Whole wheat pasta with lentils (non-heme iron source) and tomato sauce (Vitamin C source)

**Iron supplements**

In certain situations some people may need iron supplements. Iron supplements are **NOT** recommended for everyone. **Do NOT take iron supplements unless your doctor tells you to.**

For some people, iron supplements are dangerous. For example, people with **hemochromatosis** absorb too much iron and should **NOT** take iron supplements. For more information about nutrition and hemochromatosis, call Dial-A-Dietitian.

If you are diagnosed with iron deficiency anemia you will likely need to take iron supplements. You should also eat iron-rich foods every day.

If your doctor has prescribed both iron supplements and calcium supplements, talk to your pharmacist or dietitian about the best times to take these.
Iron Content of Common Foods*

What is heme iron?

There are two types of iron found in foods: heme and non-heme. Your body absorbs heme iron more easily than non-heme iron. However, foods containing non-heme iron are also very important sources of iron in your diet. They are listed on the other side of this sheet.

<table>
<thead>
<tr>
<th>Amount</th>
<th>Food**</th>
<th>Iron (mg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>90 g (3 oz)</td>
<td>Clams</td>
<td>25.0</td>
</tr>
<tr>
<td>90 g (3 oz)</td>
<td>*Liver, pork</td>
<td>16.0</td>
</tr>
<tr>
<td>90 g (3 oz)</td>
<td>Oysters</td>
<td>8.0</td>
</tr>
<tr>
<td>90 g (3 oz)</td>
<td>*Liver, chicken</td>
<td>7.5</td>
</tr>
<tr>
<td>90 g (3 oz)</td>
<td>Mussels</td>
<td>5.7</td>
</tr>
<tr>
<td>90 g (3 oz)</td>
<td>*Liver, beef</td>
<td>5.5</td>
</tr>
<tr>
<td>90 g (3 oz)</td>
<td>Beef</td>
<td>2.4</td>
</tr>
<tr>
<td>90 g (3 oz)</td>
<td>Shrimp</td>
<td>2.8</td>
</tr>
<tr>
<td>90 g (3 oz)</td>
<td>Sardines</td>
<td>2.4</td>
</tr>
<tr>
<td>90 g (3 oz)</td>
<td>Turkey/Lamb</td>
<td>2.0</td>
</tr>
<tr>
<td>90 g (3 oz)</td>
<td>Pork/Chicken</td>
<td>1.0</td>
</tr>
<tr>
<td>90 g (3 oz)</td>
<td>Fish</td>
<td>1.0</td>
</tr>
</tbody>
</table>

* Liver is high in cholesterol, so people with high blood cholesterol levels should not eat liver often.

** All iron values are for cooked meat, fish, shellfish and poultry.
## Foods containing non-heme iron

<table>
<thead>
<tr>
<th>Food</th>
<th>Amount</th>
<th>Iron (mg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>*Enriched cream of wheat, dry</td>
<td>45 mL (3 Tbsp)</td>
<td>6.9 - 8.5</td>
</tr>
<tr>
<td>Amaranth, dry</td>
<td>125 mL (½ cup)</td>
<td>7.4</td>
</tr>
<tr>
<td>*Instant enriched oatmeal</td>
<td>1 package</td>
<td>4.2 - 6.7</td>
</tr>
<tr>
<td>*Enriched cold cereal</td>
<td>1 serving (see package for serving size)</td>
<td>3.9 - 5.3</td>
</tr>
<tr>
<td>Infant cereal, dry</td>
<td>150 mL (10 Tbsp)</td>
<td>4.7</td>
</tr>
<tr>
<td>Soybeans, mature, cooked</td>
<td>125 mL (½ cup)</td>
<td>4.7</td>
</tr>
<tr>
<td>Pumpkin seeds, kernels, roasted</td>
<td>30 mL (2 Tbsp)</td>
<td>4.3</td>
</tr>
<tr>
<td>Quinoa, dry</td>
<td>75 mL (¼1 cup)</td>
<td>3.9</td>
</tr>
<tr>
<td>Blackstrap Molasses</td>
<td>15 mL (1 Tbsp)</td>
<td>3.6</td>
</tr>
<tr>
<td>Lentils, cooked</td>
<td>125 mL (½ cup)</td>
<td>3.5</td>
</tr>
<tr>
<td>Bagel</td>
<td>1</td>
<td>3.2</td>
</tr>
<tr>
<td>Red kidney beans, cooked</td>
<td>125 mL (½ cup)</td>
<td>2.8</td>
</tr>
<tr>
<td>Potato, baked, with skin</td>
<td>1 medium</td>
<td>2.7</td>
</tr>
<tr>
<td>Tofu, firm</td>
<td>90 g (3 oz)</td>
<td>2.7</td>
</tr>
<tr>
<td>Pasta, enriched, dry</td>
<td>85 g</td>
<td>2.5</td>
</tr>
<tr>
<td>Asparagus, canned</td>
<td>125 mL (½ cup)</td>
<td>2.2</td>
</tr>
<tr>
<td>Lima beans, boiled</td>
<td>125 mL (½ cup)</td>
<td>2.2</td>
</tr>
<tr>
<td>Dried figs</td>
<td>5</td>
<td>2.1</td>
</tr>
<tr>
<td>Swiss chard, cooked</td>
<td>125 mL (½ cup)</td>
<td>2.1</td>
</tr>
<tr>
<td>Refried beans, canned</td>
<td>125 mL (½ cup)</td>
<td>2.1</td>
</tr>
<tr>
<td>Avocado</td>
<td>1</td>
<td>2.0</td>
</tr>
<tr>
<td>Sauerkraut</td>
<td>125 mL (½ cup)</td>
<td>1.8</td>
</tr>
<tr>
<td>Cherries, sour, canned</td>
<td>125 mL (½ cup)</td>
<td>1.8</td>
</tr>
<tr>
<td>Chickpeas, canned</td>
<td>125 mL (½ cup)</td>
<td>1.7</td>
</tr>
<tr>
<td>Beets, canned</td>
<td>125 mL (½ cup)</td>
<td>1.6</td>
</tr>
<tr>
<td>Hijiki, dry (seaweed)</td>
<td>5 grams</td>
<td>1.5</td>
</tr>
<tr>
<td>Prune juice</td>
<td>125 mL (½ cup)</td>
<td>1.6</td>
</tr>
<tr>
<td>Sunflower seeds, hulled</td>
<td>75 mL (1/3 cup)</td>
<td>1.5</td>
</tr>
<tr>
<td>Soy milk beverage</td>
<td>250 mL (1 cup)</td>
<td>1.5</td>
</tr>
<tr>
<td>Tomato juice</td>
<td>250 mL (1 cup)</td>
<td>1.5</td>
</tr>
<tr>
<td>Wheat germ</td>
<td>30 mL (2 Tbsp)</td>
<td>1.4</td>
</tr>
<tr>
<td>Food</td>
<td>Amount</td>
<td>Iron (mg)</td>
</tr>
<tr>
<td>-----------------------------</td>
<td>-----------------</td>
<td>-----------</td>
</tr>
<tr>
<td>Peas, green</td>
<td>125 mL (½ cup)</td>
<td>1.3</td>
</tr>
<tr>
<td>Whole wheat bread</td>
<td>1 slice</td>
<td>1.2</td>
</tr>
<tr>
<td>Barley, pearled, cooked</td>
<td>125 mL (½ cup)</td>
<td>1.1</td>
</tr>
<tr>
<td>Shredded wheat</td>
<td>1 biscuit</td>
<td>1.1</td>
</tr>
<tr>
<td>Oatmeal, cooked, unenriched</td>
<td>175 mL (¾ cup)</td>
<td>1.0</td>
</tr>
<tr>
<td>Sesame butter (tahini)</td>
<td>30 mL (2 Tbsp)</td>
<td>1.0</td>
</tr>
<tr>
<td>Prunes, dried</td>
<td>5</td>
<td>1.0</td>
</tr>
<tr>
<td>Table molasses</td>
<td>15 mL (1 Tbsp)</td>
<td>1.0</td>
</tr>
<tr>
<td>Rice, brown, cooked</td>
<td>250 mL (1 cup)</td>
<td>0.9</td>
</tr>
<tr>
<td>Peanut butter</td>
<td>30 mL (2 Tbsp)</td>
<td>0.9</td>
</tr>
<tr>
<td>Egg</td>
<td>1 medium</td>
<td>0.7</td>
</tr>
<tr>
<td>Raisins</td>
<td>50 mL (3 Tbsp)</td>
<td>0.6</td>
</tr>
<tr>
<td>Broccoli, cooked</td>
<td>125 mL (½ cup)</td>
<td>0.6</td>
</tr>
</tbody>
</table>

*Note: The iron content of enriched cereals varies with different brands. Check the label for the most accurate information. If the iron content is given as a percentage of the DV, the standard used is 14 mg. For example, if a serving of cereal contains 25% of the DV, it contains (0.25 X 14 mg) = 3.5 mg of iron.

**For more health information**


For more BC HealthFile topics visit www.bchealthguide.org/healthfiles/index.stm.

For more nutrition information and to speak with a registered dietitian, call Dial-A-Dietitian at 1-800-667-3438.

Call the BC Healthlink to speak to a registered nurse, available 24-hours every day: call toll-free 811

*This information about Iron in Food is provided, with permission, from the B.C. Ministry of Health and the BCHealthFiles series (Nutrition Series; #68d; November, 2005).*
Community Resources

While in hospital you may request to meet with a social worker to discuss other resources that you may be eligible for in your community.

Health Centres

includes Home Care nursing, physical and occupational therapy services

Look in blue pages under “health authorities” for your local health centre

Meal Catering

A number of companies provide ready-to-eat or frozen meals. Look in white pages under “Meals on Wheels” or Yellow Pages under “caterer” for companies’ menus and prices.

Home Help

Look in Yellow Pages under “home support services” or “home making” for a trained support worker to assist you with your personal care and/or cleaning.

Look in Yellow Pages under “house cleaning” for agencies that provide house cleaning services only.
Equipment

Ask your occupational therapist for advice on what equipment to buy and the best places to buy it in your community.

Red Cross Medical Equipment Loan Services

Refer to the White pages under Canadian Red Cross

Medical Supply Stores

Most medical supply stores sell and/or rent a variety of assistive devices and equipment. Look in Yellow Pages under “medical supplies” for stores in your area.

Pharmacies

Some pharmacies sell assistive devices such as long handled reachers, shoe horns and elastic shoelaces. Look in Yellow Pages under “pharmacies” for stores in your area.
**Transportation**

*HandyDART Custom Transit*

HandyDART service is available throughout some communities in the province. Book a minimum of 3 working days in advance for transportation during the week and 7 days in advance for weekend service.

Look in the yellow pages under bus lines or regional transit “handyDART” for services in your community.

*Disabled Parking Placards (SPARC)*

Tel: 604-718-7744  
E-mail: permits@sparc.bc.ca  
www.sparc.bc.ca

application process takes 2-3 weeks if mailed in or 10 minutes if done in person the placard is good for use throughout BC

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* An application form must be completed to qualify for these services. After completing the form, have your doctor or therapist confirm your need and then submit it to the appropriate office.
Internet Resources

The Arthritis Society: www.arthritis.ca

The American Academy of Orthopaedic Surgeons:
http://orthoinfo.aaos.org/

National Institute of Arthritis, Musculoskeletal and Skin Diseases (NIAMS): www.niams.nih.gov/hi

Dietitians of Canada: www.dietitians.ca

A patient’s guide to artificial hip replacement (1999)
http://mediapartnersinc.com/media_partners/catalog/

Sex after total joint replacement: A guide for you and your partner:
http://mediapartnersinc.com/media_partners/catalog/

Sexual function after a total hip replacement
Sexual function after a total joint replacement:

Additional Resources

The following books and videos are available for a loan from the Arthritis Learning Center:

Patient’s Guide to Knee and Hip Replacement (book)
by Irwin Silber
Fireside Books, New York 1999

Total Hip Joint Replacement Guide (booklet)
by Joint Knowledge Division of Neill Consulting
London, ON 1997

Free Nutrition Hotline
604-732-9191 (Greater Vancouver)
1-800-667-3438 (rest of B.C.)