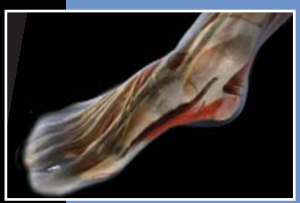
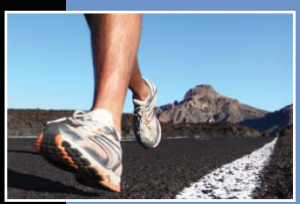
Foot & Ankle SURGERY

Planning For Your Best Results





Canadian Orthopaedic Foundation | Fondation Canadienne d'Orthopédie

1.800.461.3639

www.movepainfree.org

1.800.461.3639 www.movepainfree.org

Patient name: _____

Phone number: _____

Emergency contact name: _____

Emergency contact number: _____

Family physician: _____

Phone number: _____

Orthopaedic surgeon: _____

Phone number: _____

The Canadian Orthopaedic Foot & Ankle Society
La Société Orthopédique Canadienne pour le Pied et la Cheville

The Canadian Orthopaedic Foundation gratefully acknowledges the many people who participated in the creation of this booklet. A special thank you also goes to the Canadian Orthopaedic Foot & Ankle Society for their support of this initiative.

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Your Role in Planning for Your Best Results

The news that an operation will give you relief from pain and disability can be very comforting. However, it can also cause concern, anxiety and even feelings of loss of control. Getting ready, mentally and physically, is an important step towards a successful result, and so is understanding what will happen following your procedure.

That's why the Canadian Orthopaedic Foundation has prepared this guide. Use it to help you, your family or caregiver, and your doctor to successfully prepare for your surgery, your return home, and your recovery. It contains:

- Questions that you may want to ask your health care professionals, with space provided for answers. You may not wish to ask them all, but can use them to help organize your thoughts and preparations.
- Information about what you can do before surgery (pre-op) to prepare for the best results.
- Advice on handling some common issues – from showering to controlling pain – after surgery (post-op).
- Guidance to support your recovery, with key information about issues like weight bearing, non-weight bearing, and assistive devices.
- Charts for recording daily information to help you to track your improvement.

This is intended to be a general guide and should be used in conjunction with education provided by your health care team. For information about specific procedures, visit www.movepainfree.org. You'll find a list of several common foot and ankle surgeries. If you don't have access to the internet, please ask your doctor if he/she can check for you and print any relevant information.

You can also call the Canadian Orthopaedic Foundation toll-free, at 1-800-461-3639. While we can't provide medical advice, we can provide you with helpful information and support. Please have the name of your procedure handy so we can best help you.

By taking part in decisions about your health care, asking questions, and learning about what's expected, you can be an active participant in your best possible results!

Part 1: Connecting With an Orthopaedic Surgeon

Diagnosis and Referral

Prior to your initial consult with an orthopaedic surgeon, the most important step is to get a proper diagnosis and referral.

Under the Canada Health Act, all patients must be referred to an orthopaedic surgeon by a family physician. He or she can contact the Royal College of Physicians and Surgeons, the governing authority for all medical professionals, for a list of orthopaedic surgeons in your province.

Depending on where you live, it could take up to a year or more before an orthopaedic surgeon can see you for the first time. At any point during this period, contact your family doctor if your condition worsens to the point that it has further impacted your daily life. Once you have seen your orthopaedic surgeon, contact his or her office to alert them likewise.

It is important to understand that your orthopaedic surgeon does not control the wait lists for referral or surgery, and is as unhappy about your wait as are you. Wait times are longer when demand for treatment outweighs the health care system's ability to meet it. If you are concerned about your wait, the best way to help is to write or call your member of provincial legislative assembly (MLA) or provincial parliament (MPP).

Your First Orthopaedic Consult

The consult with your orthopaedic surgeon will be different from a visit to your family physician, and is likely to be much shorter than you'd expect. The surgeon's goal is to answer two questions:

- Will orthopaedic surgery help this patient?
- If not, what can the surgeon offer or suggest that will help this patient?

The surgeon will answer these questions based on your family physician's referral, your medical history, and a physical examination. Thus, you need to be able to communicate well with your surgeon.

If you have communication difficulties (hearing or speech impediments, do not speak the language fluently), or if you become shy or nervous with health care professionals, bring a trusted family member or friend who can communicate on your behalf. It's important for you, your surgeon, and your health that you are able to communicate clearly.

Your Medical History

The most important information that you can provide is your medical history. A medical history is information gained from your responses to questions asked by the surgeon. Take some time before your appointment to think through concise descriptions of the following factors. The more clear and specific you can be, the more helpful in determining if surgery can help you.

Age _____ Height _____ Weight _____

Major concern (e.g. difficult to find comfortable shoes, pain when walking)

_____

_____

_____

History of the major concern (e.g. when symptoms began, how quickly pain increased or mobility decreased, current pain level)

_____

_____

_____

Past illnesses (e.g. heart condition, diabetes, major surgeries, infections)

_____

_____

_____

Family diseases or illnesses (e.g. heart disease, cancer)

_____

_____

_____

Lifestyle factors relevant to your condition, surgical treatment, and recovery
(e.g. living arrangements, help at home, occupation, activity level, tobacco use)

Name and dosage of regular medications (includes those prescribed by doctors, over-the-counter, and alternative medications such as herbal supplements)

Refer to the table on Page 10 for a complete list.

Allergies

If you and your surgeon determine that surgery will help you, ask questions to be sure you understand the decision. It's tough to remember new information after leaving the office, so jot down quick notes while you're with your surgeon, then complete them in the waiting room on your way out. The next section provides a list of possible questions about your surgery and space to record responses.

Part 2: Pre-Op Period – Preparing for Surgery

Questions to Ask Before Consent

No surgery can be performed without your informed consent. Usually you'll be asked to give consent at your first meeting with the surgeon.

When you agree to surgery, you're appointing your surgeon to act in your best interests. Thus, you're entitled to know what's going to happen to you, why the procedure is necessary, and the risks. Here are some questions you may wish to ask your surgeon before giving consent:

What is the operation called?

Why is this operation necessary?

What happens during the surgery?

How long will the operation take?

Will this be day surgery or require an overnight stay?

What type of anaesthesia will be used (regional, general or combination)?

What are the risks during and after surgery?

How much will I improve?

How long will I have to wait for surgery?

Questions to Ask About Recovery

Surgery will have a short-term impact on your life before the long-term benefits become apparent. Recovery times vary from person to person, depending on the procedure and the individual's general health. It's especially important to discuss how long you might expect to be off work, so that you can plan your absence with your employer. Here are some questions to ask your surgeon about your recovery after surgery:

Will I have to stay in the hospital?

If so, for how long?

Will I be in a lot of pain? How long will it last?

What can be done to lessen the chance of infection?

Will I need any special medication? For how long?

How long will the surgical wound take to heal?

Will I need physiotherapy? How long will it last?

When can I start walking on the operated foot?

Do I need to use a cane or crutch?

How long before I can return to work? My daily routine? My favourite pastime?

How much help will I need at home?

Will I need any special equipment or footwear?

When will my first follow-up visit with you be?

Once a decision is made and the surgery is booked, there is likely a waiting period. This time can be used to learn about the surgery and prepare for pre-op tasks and post-op plans that will make your recovery easier.

From the Decision to the Surgery

Beyond the expertise of your orthopaedic surgeon, you play the most important role in your surgery and recovery. You want the best outcome possible from your surgery so you must prepare. Here's what you can do to get ready for that important day:

- Follow your orthopaedic surgeon's orders – he or she is looking out for you!
- If you are on daily medications, especially blood thinners, ask your surgeon if you should still take them the morning of your surgery.
- Arrange any supportive care, if needed, in preparation for discharge from the hospital.
- Consider any accommodations that you might need to make to your living arrangements (such as sleeping downstairs, avoiding the use of stairs) to support your recovery at home.
- Smoking increases the risk of poor bone and wound healing. In fact, some surgeons may refuse to perform some surgeries for smokers because of poor healing risks. Quitting before surgery is in your best interest to reduce complications and improve your outcome.
- If you have diabetes, poorly controlled sugars will lead to complications, such as infections, wound problems, and delayed bone healing. It is important to get your blood sugars and diabetes controlled prior to surgery by seeing your family physician or endocrinologist.
- Find out if you will require outpatient physiotherapy. If so, locate a clinic close to home or work for convenience. While in the hospital, a physiotherapist may review some exercises with you.
- Find out about any assistive equipment you'll need to rent or purchase (for example bathing or walking). These devices are designed for your safety, convenience, and recovery after surgery.
- Learn about your surgery. For common surgery explanations, visit www.movepainfree.org.

Most foot and ankle surgery is performed on an outpatient basis, however, some procedures could require an overnight hospital stay. As such, this guide includes information on what to expect during hospital stays.

The Pre-Op Visit

Most hospitals conduct a pre-operative/pre-op/pre-admission visit. You will meet some members of the health care team to assess your general health, prepare you for surgery, and plan your discharge. You can also ask questions about your surgery and recovery.

Among the health care professionals you may meet:

- A nurse who will inform you of what to expect when you have your operation.
- A medical internist who may assess your general health.
- A social worker who may discuss your discharge planning needs.
- A laboratory technician who will do blood work and other tests ordered by the doctor.
- A physiotherapist who may conduct a test of your abilities.
- An occupational therapist to learn about managing your daily activities after surgery.
- An anaesthetist to assess conditions/concerns.

Your doctor or hospital will notify you of the date of your pre-op visit. It usually happens 2-4 weeks prior to your surgery.

Anaesthesia

There are three types of anaesthesia:

- **Regional anaesthesia** numbs only the part of the body that will be operated on. The rest of your body is conscious of what's happening. The common types of regional anaesthesia are called an epidural or spinal, and ankle and popliteal blocks. The affected area will feel numb for some time until the anaesthesia wears off, up to 8-10 hours.
- **General anaesthesia** puts your brain and whole body to sleep so you don't feel or remember what goes on during your surgery.
- A **combination** of regional and general anaesthesia numbs the surgical area, while a lower dose of general anaesthesia (sedation) helps you relax and be less aware of the surgery.

The type of anaesthesia you receive depends on your surgery and overall health. The anaesthetist or your surgeon can answer questions and discuss any concerns you have. You may meet the anaesthetist when you have your pre-op tests or when you arrive at the hospital for your surgery.

Here are a few questions you might want to ask:

How should I take my regular medications before the procedure?

What type of anaesthesia is used for my procedure?

Are there potential complications? If yes, what are they?

What can I do to reduce the risk of complications? Before surgery? After surgery?

If I have regional anaesthesia will I hear/see what's going on in the operating room?

During anaesthesia, the systems that keep food and drink safely in the stomach become weak. Food and drink could find their way into the lungs by vomiting or regurgitation, causing serious problems.

You will be advised not to eat or drink anything after midnight the night before surgery.

Be sure to follow the orders given by your surgeon and anaesthetist. You will be instructed about how to take your regular medications by your surgeon and/or anaesthetist.

When Changes Happen

There is always the potential that your surgery could be postponed for various reasons, from availability of resources to a trauma case that takes precedence over others. This can be disruptive, as you have already arranged for post-surgical care or time off work. Unfortunately, these events are out of your surgeon's control. Every effort will be made to reschedule your surgery as quickly as possible.

Pre-Surgery Checklists

Household (items to prepare you for surgery and the recovery period afterward):

- Get special equipment recommended by your health care team.
- Identify a grocery with delivery service, if available near you.
- Identify a pharmacy with delivery service, and ensure they stock your medication.
- Arrange home services such as snow removal, lawn care, and dog walking.
- Organize a "recovery room" for your return after surgery.
- Remove area rugs, electrical cables and other hazards that could cause a fall.
- Prepare/buy frozen microwaveable and other easy-to-prepare dinners.
- Arrange a ride to and from the hospital.
- Pack your bag for the hospital.

What to pack (items depend on whether you're staying overnight):

- Nightclothes.
- Dressing gown and slippers.
- Loose clothing that are easy to put on.
- Personal care items.
- All your medications in their original containers and a list of what they are.
- Books and magazines.

Note: Leave cash, credit cards, jewelry, and other valuables at home.

Current medication list:

Medication	Reason	Dose	How Often

What to Expect at the Hospital

Your date for surgery has arrived! You should not have anything to eat or drink after midnight the night before your surgery. While each hospital may have variations, the basic processes are the same.

Arrival and pre-surgery

- You arrive at the hospital about 2 to 2½ hours before your scheduled surgery time and report to the Pre-Operative or Pre-Admission Clinic.
- Staff will give you hospital clothing and an identification wristband, and explain what to expect in the surgical area. Staff may also ask questions about your medical history, and check your temperature, pulse, respiration, and blood pressure.
- For peace of mind and safety, know which joint or limb will have the surgery. Some surgeons sign their initials right on it before surgery. Check that the nursing staff and surgeon are in agreement, and that the consent lists the correct surgery.
- You will get an intravenous (IV) line to provide fluids and medication during surgery.
- The anaesthetist will speak with you just prior to surgery.

In the operating room

- You'll be prepped for surgery. Skin will be cleansed, and all areas except the surgical area will be covered with drapes.
- The type of anaesthesia discussed with you will be given.
- The surgery will be performed, with the length of time depending on your procedure.
- Depending on the anaesthetic, you may have a bladder catheter inserted to drain urine.

After surgery

- You'll be taken to the Recovery Room or Post-Anaesthesia Care Unit to check your blood pressure, pulse and breathing.
- You'll receive medication for your pain either intravenously or by injection.
- You'll be asked to do your deep breathing and possibly some exercises to ensure good circulation.
- You may have an x-ray.

Part 3: Post-Op Period – The Road to Recovery

After surgery, the focus is on your comfort, healing and recovery. Minimizing pain, preventing complications, and ensuring proper care are critical to all three.

The Day After Surgery

Most foot and ankle surgeries are performed on an outpatient basis, requiring no overnight hospital stay. However, if you need to remain in hospital, on the day after surgery you may:

- Have blood drawn for testing (although this is rare for foot/ankle surgery).
- Be able to eat and drink as you can tolerate.
- Receive medications you normally take and to control pain.
- Have the catheter removed, if inserted, and be expected to get up and use the washroom or commode.
- Receive a visit from the physiotherapist or occupational therapist who will assist you with exercises to regain your mobility.

Preparing to Go Home

Should you require a hospital stay, the duration will depend on your overall health and the progress you have made towards returning to mobility. Before you leave the hospital, you will:

- Have your dressing changed, if permitted for your procedure, and have information on how to care for the surgical wound.
- Receive instructions from your physiotherapist or occupational therapist on an exercise routine.
- Have instructions on any restrictions regarding exercise, bathing, diet, etc.
- Know how to use any assistive devices you may require.
- Receive a prescription for any medications you need.
- Be given an appointment to see your orthopaedic surgeon in 10-14 days, if you don't already have one.
- Review discharge plans with staff.

Usually, you'll need to arrange a ride home. Home is where the rest of your recovery begins. Rehabilitation will help your body heal, resulting in more mobility, less pain and greater freedom to do the activities you love.

Eating and Drinking

You can return to what you normally eat and drink right away. If you have had general anesthesia, you might wish to start with a light snack to ensure your stomach has settled.

Activity Levels

Generally, standing for long periods of time is not recommended. Even if you can't bear weight, that doesn't mean you need to (or should) lie in bed all day. In fact, that can set back your recovery.

Your doctor will advise you on appropriate and expected activity. When you are sitting or lying down, raise your foot on one or two pillows to prevent swelling and bleeding.

Your doctor will also tell you when you can go back to work and sports. Don't do any strenuous activities, like jogging or cycling, until your doctor tells you it's safe.

Walking

The most important factor in your recovery is whether you can bear weight, meaning that you can stand or press down with your affected foot. See Part 4 of this guide.

How you should walk depends first on the instructions from your surgeon, and on what you have on your foot: a cast, tensor bandage and dressing type. Be sure to have a clear understanding of what you can – and can't – do before you leave the hospital.

Personal Care

You can take a shower 2-3 days after your procedure. Do not take baths until your wound heals, about 10-14 days.

Your splint or cast should be wrapped tightly with a large plastic bag to prevent water damage. The plaster in the splint or cast will soften and break when wet, and reduce the support it is intended to provide. Also, the cotton used in application to protect your skin will get wet and cannot fully dry, which will lead to damaged skin or wound infections. If the splint or cast gets wet, contact your surgeon's office or go to your nearest emergency department.

If you have steri-strips, leave them on to shower. If you are wearing a tensor, take it off to shower.

After you shower, put an antibacterial cream and a clean bandage on your wound, unless you have steri-strips. If your doctor tells you to, put the tensor back on.

Falls in the shower during the post-operative period are common and can lead to damage to the surgical area or injury to a different area of the body. Consider renting or purchasing a shower stool (if you have a walk-in shower) and/or bath transfer bench (if you have a bath tub), a non-slip mat and a grab bar.

Pain Management

If your body is stressed from pain, healing may take longer, so minimizing pain is important. Everyone is unique, so you might need to try different pain medications and doses to find which work best. Consult your physician, and follow all directions provided by your physician or pharmacist.

It's important to communicate your pain to health care providers, so they can better understand it and select the best treatment. A common way to measure pain is on a scale from zero (no pain) to 10 (the worst possible pain you can imagine). Words that are helpful in describing pain would be aching, burning, stinging or throbbing.

Complication Prevention

All surgeries come with a risk of complications; they are rare, but they can happen. By following your doctor's orders and knowing the possible complications, you can do a great deal to prevent or lessen the risk of them occurring.

Spot emergencies

Call your surgeon or visit the nearest emergency department for:

- **Bleeding that won't stop:** Press on the area for 15 minutes. Call your surgeon if the bleeding doesn't stop and soaks your dressing.
- **Severe pain:** Call your surgeon if your pain worsens and doesn't get any better when you take your prescribed pain medication.
- **Swelling and circulation concerns:**
  - Your foot or ankle is very swollen.
  - Your toes feel cold or have changed colour (are pale or blueish).
  - You have less feeling in your foot or ankle after the anaesthetic wears off.
  - You can't move your toes. Note that if a bandage is too tight, you can remove it yourself.
- **Fever higher than 38°C or 101°F.**

Infection

While less than one percent of patients develop a wound infection after surgery, any infection can be a serious complication – so prevention is key. Infections can start in your joint during surgery, in the hospital or when bacteria travel to your wound from elsewhere in your body. You are less likely to get an infection if you are well nourished and if your immune system is strong.

You can prevent infection by:

- Eating healthy foods before and after your surgery.
- Taking antibiotics, if prescribed to you, as directed.
- Washing your hands frequently.
- Carefully following instructions for wound care.
- Avoiding people who have colds or infections.
- Stopping smoking before your surgery.
- If you are a diabetic, ensuring that your blood sugars are adequately controlled by your diabetes medication or insulin.
- Talking with your physician if you suspect or see signs of an infection.

Signs of an infection:

- Fever over 38°C or 101°F degrees.
- Redness beyond the basic edge of the wound.
- Swelling of a wound.
- Drainage from a wound.
- Increased pain in the surgical area during activity and rest.

The symptoms of an infection may also be signs of a hematoma (bleeding into the tissues around the surgery). It is very important to talk to your health care provider to differentiate between the two conditions.

Be sure to notify your dentist and other doctors if you've had a joint replacement. Even during a routine dental examination, you might risk an infection. It's up to you to keep them informed.

Swelling

You may experience swelling in the affected limb for the first few weeks after surgery. To help reduce the swelling, place your operated leg on a pillow, ideally 8 to 12 inches above the level of the heart, whenever possible. If the affected limb is your leg or foot, avoid sitting for long periods and flex and extend at your knees and unaffected limbs to keep your circulation going.

It is normal for the foot and toes to throb when you first put your foot down on the ground. This can be an uncomfortable sensation, but it's important to keep the foot down for a few minutes at a time, and gradually increase the duration the foot stays lowered as opposed to elevated. Eventually the sensation will go away.

Respiratory or Lung Complications

Lung complications such as fluid in the lungs or pneumonia may occur due to the anaesthetic and prolonged bed rest. If there are any problems with breathing or shortness of breath, see your health professional as soon as possible.

Nausea

This is the most common post-operative complication. Intravenous feeding (through a tube in your arm) is generally all that is required. If nausea and vomiting continue, medication may be given. You are given fluids after surgery to make sure you are not nauseated; once your stomach is working, you will be moved on to your normal diet.

Constipation

Lack of activity following surgery and the use of narcotics or pain killers, which control pain but also reduce bowel function, often cause constipation. If needed, stool softeners and laxatives may be prescribed.

Allergic Reactions

These may result from the medications you have been prescribed, and can vary from a mild rash to an intense reaction. The most common reactions are to penicillin, sulpha drugs and codeine. Tell your doctor about any previous allergic reactions. If you suspect you are having an allergic reaction, inform your health care professional immediately.

Nerve Injury

Depending on the surgical area, nerve injury may result due to the proximity of the nerves and blood vessels. Usually the result is temporary; permanent injury is rare.

Surgical Wound and Stitches or Staples

Your nurse or doctor will advise you on how to care for your surgical wound and your stitches. Follow all instructions to ensure proper healing and minimal scarring. Ask questions if you do not understand how to change your bandages.

Avoid water or other moisture on the wound for the first 24 hours. After that, and if you do not have a dressing on your incision, you can begin washing with soap and water, very gently. Cleansing twice a day will prevent build-up of debris. Debris may cause a larger scar, make suture removal more painful and difficult, or increase the likelihood of infection.

It's important that the sutures be removed on the day designated by your surgeon to avoid unnecessary scarring. If you have dissolving stitches, make sure you understand exactly when they should dissolve and how to care for the site during and after that period.

Even after your stitches are removed, it's important to care for the wound site with an ointment or cream, and to protect the site from injury for at least four weeks.

Watch for signs of an infection (see Infection) and:

- Unusual tenderness or swelling. You will experience the most tenderness on the second day, but it should subside each day after.
- Stitches that come out sooner than expected.

If you experience one or more of these symptoms, contact your doctor immediately. If your doctor is not available, go to your hospital's emergency department for examination.

Cast Care

General care

- Keep your cast dry. There is no such thing as a "waterproof" cast, so don't get any type of cast wet. If the cast gets wet, the skin underneath stays damp and can become moldy and smelly. If the cast and the underlying dressing accidently get wet, contact your surgeon's office or go to your nearest emergency department to get your cast checked.
- Casts don't completely harden for about two days. Don't rest the full weight of the cast on a hard surface during these first two days even if you have a walking cast. That can dent the cast and can cause pressure sores on the skin underneath.
- Avoid activity and situations that may re-injure you or damage your cast.
- A cast that is dented or cracked, or starts falling apart can lead to problems with healing. Check with your doctor if you think the cast isn't holding the affected area still enough.
- Don't put anything down the cast. If something has fallen in accidentally, even something as small as a coin, see a doctor right away – if not your surgeon, then the hospital emergency department. If you get itchy or irritated under the cast, do not use a stick, hanger or other object to scratch. Use a hair dryer on the cold setting to try to relieve the sensation. If the itch or irritation persists and prevents you from sleeping, contact your surgeon for a cast change.

See "Warning Signs" on Page 20.

Warning signs

If you have *any* concern about your cast and how it feels, contact your doctor; if your doctor is unavailable, go to an emergency department. It's best to err on the side of caution. Pay particular attention if you experience any of the following signs.

- **Severe pain:** If pain worsens after the cast has been placed or changed, it may be a sign that the cast is too tight.
- **Blueish nailbeds:** If the nailbed (the area under the toenail) is blue and doesn't turn pink again after being pinched and released, it may be a sign that the cast is too tight.
- **Numbness or tingling:** Numbness after your surgery is normal and this should wear off in a few hours. Constant numbness or tingling in the toes of the casted leg may indicate that the cast is too tight, or that a nerve has been injured.
- **Immobility:** It might be difficult to move your toes due to pain. If you can't move them at all, the cast may be too tight or the muscles or nerves may not be working properly.
- **Severe coolness of toes:** A minor difference in the temperature of the casted leg is normal. If you have any other problems mentioned here and the foot is cool, the cast may be too tight.
- **Severe swelling:** Swelling that worsens after the cast is on may be a sign that the cast is too tight or that something under the cast needs to be checked.

Tips for Recovery

Everyone heals differently. In general, here's what to do, and what you can expect, for the best possible progress after your surgery:

- Be active, gradually increasing your activity as directed by your health care team.
- Remember to rest when you need to, but do not stay in bed once you get home.
- Follow your exercise program to improve endurance, strengthen your muscles, and ensure a full return to mobility.
- Use the home aids or assistive devices to protect and reduce stress on the surgical areas.
- Resume your normal diet, unless instructed otherwise. Eat plenty of foods high in protein to help with healing.
- Follow your discharge instructions.
- Don't be alarmed by pain, which is quite commonly felt surrounding the surgical site.
- Don't get discouraged. It may be weeks and months before your desired results are achieved. Your improvement might be steady and then slow down. But even after a year or more, activity can increase as muscle strength continues to improve.
- See your surgeon as needed for follow-up visits, typically at six weeks, six months and one year (depending on your progress and whether you are having any problems). These timelines are general.
- Track your recovery. At the back of this guide, you'll find a diary to note your progress – how you're feeling, what you can do, and any signs of infection. That helps you, and others helping you, to manage your recovery. You can share this information with your surgeon at your follow-up appointment, or if you develop complications.

Part 4: Getting Back on Your Feet

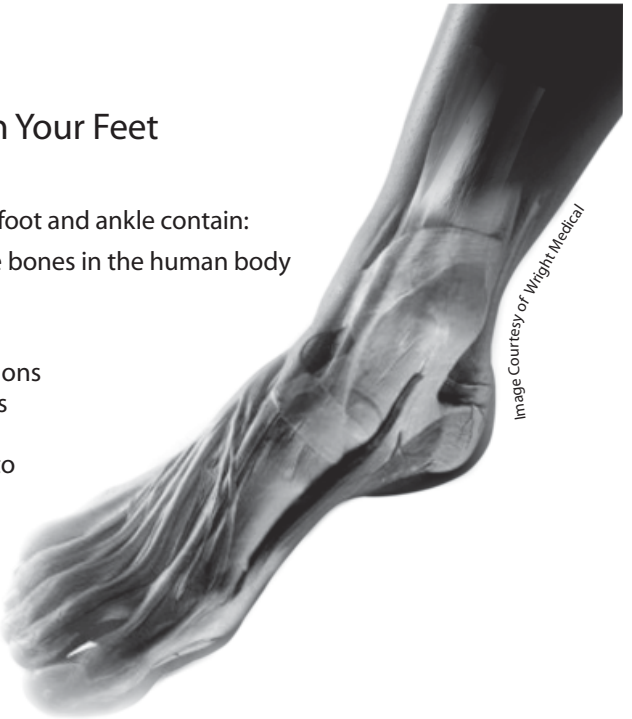
Image Courtesy of Wright Medical

Anatomy of the Foot

Did you know that the human foot and ankle contain:

- 26 bones (one-quarter of the bones in the human body are in the feet);
- 33 joints;
- more than 100 muscles, tendons (tissues that connect muscles to bones), and ligaments (tissues that connect bones to other bones); and
- a network of blood vessels, nerves, skin, and soft tissue (for shape, durability, cell regeneration, muscular nourishment, and control over movements).

The foot and ankle work together to provide the body with support, balance, and mobility, combining mechanical complexity and structural strength. Structurally, the foot has three main parts: the forefoot, the midfoot, and the hindfoot.

Learning About Your Surgery

In addition to getting the details from your surgeon, an overview of several common surgeries are available at www.movepainfree.org.

Besides the surgery itself, one of the key things you need to learn is whether and when you can bear weight following the procedure. That depends on your specific surgery and your doctor's advice. While this guide provides general information, talk to your doctor to fully review weight bearing and non-weight bearing recovery.

Weight Bearing

Bearing weight and walking can improve blood flow and promote healing, which are important in your recovery after surgery. It's equally vital to get the right amount of weight bearing when moving around.

When we walk, we alternate carrying our full body weight on each leg. After foot or ankle surgery, that may have to change for a time.

Weight bearing refers to the amount of weight that you can put on the leg on which surgery has been performed. That amount will vary depending on your surgery and other factors. Your surgeon will determine how much weight you can bear and when.

Grades of weight bearing

There are grades of weight bearing for each phase of recovery, from bearing no weight to full weight bearing. These are generally described in terms of a percentage of body weight.

- **Non-weight bearing:** You can rest your foot on the ground, but you are not allowed to support any weight on the leg or foot at all. In this grade, 0% of the body weight can rest on the leg and foot.
- **Touch down weight bearing or toe touch weight bearing:** The foot or toes may touch the floor to maintain balance, but can't support any weight. Here, the weight of the leg on the floor while taking a step should be no more than 5% of the body weight (which is about half the weight of the leg itself).
- **Partial weight bearing:** Your operated leg can support a small amount of weight. You can gradually increase that up to 50% of body weight – enough to stand with your body weight evenly supported by both feet, but not to walk.
- **Weight bearing as tolerated:** This usually suits people who can support 50%-100% of their body weight on the affected leg. The precise amount may vary according to your circumstances.
- **Full weight bearing:** Your leg can now carry 100% of your body weight, which permits normal walking.

Walking Aids

Your doctor may tell you to use a cane, crutches, or a walker so that you can keep all or part of your weight off your foot. These devices also give you support as you walk. In some cases, you may even need a wheelchair. You can practice with these even before surgery to get accustomed. (For more, see section in this guide on Assistive Devices.)

You may also need a cast after foot surgery to help the proper healing process. Some casts are weight bearing, while others are not. Your affected bone is usually strong enough for weight bearing in about 6-12 weeks, but the bone takes about six months to regain normal strength. Your doctor will advise you on the type of cast you need.

Depending on your doctor's orders, you might go from bearing no weight to a period of partial weight bearing. That might require a special shoe or boot to keep the bones and soft tissues of the foot steady as they heal.

Up and Down Stairs

If you can't bear weight, stairs can be a real challenge. The safest way may actually be to use your seat to "bop" up or down the stairs, not your legs. Hopping is another solution. A general reminder for stairs: go up with the "good leg" first, go down with the "bad" leg first.

Returning to Work

Your return to work depends on several factors – the type of surgery performed, the amount of pain you experience, any complications, your ability to bear weight, and your job. Some patients may return to work during the non-weight bearing period after surgery. Others may have to return part-time or to graduated duties, or they may require a full recovery before returning at all, depending on the job's demands. Talk to your doctor about when you're expected to reach maximum medical recovery.

Be sure to discuss all of this with your doctor prior to your surgical procedure, and confirm the plan with your employer. You'll also need to complete a form for your employer or get a doctor's note – something in writing – to document your temporary or perhaps long-term absence from work.

Assistive Devices

As part of your recovery, and to help you remain mobile, you may require any number of assistive devices. This may range from wheelchairs and walkers, to crutches and canes, to air casts and orthotics. What you need depends on your surgery and how much weight you can bear.

Crutches

Even if you've already been fitted for crutches, make sure your crutch pads and handgrips are set at the proper distance, as follows:

- **Crutch pad distance from armpits:** The crutch pads (tops of crutches) should be 1½" to 2" (about two finger widths) below the armpits, with the shoulders relaxed.
- **Handgrip:** Place it so your elbow is slightly bent – enough so you can fully extend your elbow when you take a step.
- **Crutch length (top to bottom):** The total crutch length should equal the distance from your armpit to about 6" in front of a shoe.

Walking:

- Begin in the tripod position, remembering to keep all your weight on your "good" (weight bearing) foot.
- Advance both crutches and the affected foot or leg.
- Move the "good" weight bearing foot or leg forward (beyond the crutches).
- Advance both crutches, and then the affected foot or leg.
- Repeat the last two steps.

Fracture Boots


Image Courtesy of DJO Canada

With your doctor's approval, you may be able to opt for a fracture boot instead of a hard cast. (For more information on casts, see "Cast Care" in Part 3.) As an alternative to a traditional cast, the fracture boot (also known as a removable boot) promotes greater comfort, faster healing time, and more mobility. Talk to your doctor about whether and when you may remove the fracture boot.

The boot encases the injured joint or foot inside an air cushion, which in turn is encased in a hard plastic shell. This boot allows a patient to slowly and safely promote strength in the foot or ankle, thereby allowing them to bear weight more quickly. That's because the fracture boot keeps the foot and ankle at a constant angle, but allows a limited amount of movement within the boot.

The air cells within the boot are adjustable and can be made stiffer or softer by using a bulb pump. The hard shell of the boot keeps the ankle or foot in place, reducing the possibility of re-injury caused by excessive movement. The hard shell also protects against external impacts. The sole of the boot is typically coated with non-skid material for safety and stability.

Canes

- ***Proper positioning:*** The top of your cane should reach to the crease in your wrist when you stand straight. Your elbow should bend a bit when you hold your cane. Hold the cane in the hand opposite the side that needs support.
- ***Walking:*** When you walk, the cane and your injured leg swing and strike the ground at the same time. To start, position your cane about one small stride ahead and step off on your "bad" leg. Finish the step with your "good" leg.

Walkers

The walker lets you keep all or some of your weight off your lower body as you take your steps. You use your arms to support some of the weight. As you recover, you will gradually be able to carry more weight in your legs.

- ***Proper positioning:*** The top of your walker should match the crease in your wrist when you stand up straight.
- ***Walking:*** Put your walker about one step ahead of you, making sure the legs of your walker are level to the ground. With both hands, grip the top of the walker for support and walk into it, stepping off on your "bad" leg. Touch the heel of this foot to the ground first, then flatten the foot and finally lift the toes off the ground as you complete your step with your "good" leg. Don't step all the way to the front bar of your walker. Take small steps when you turn.
- ***Sitting:*** To sit, back up until your legs touch the chair. Reach back to feel the seat before you sit. To get up from a chair, push yourself up and grasp the walker's grips.

Other Wheeled Devices

With a walker, you're still required to move your "bad" leg. Newer wheeled devices, like the Roll-A-Bout, provide the same 4-wheel stability, but with a cushion on which to rest the knee of the injured leg. While gripping the handlebar, you use your good foot to move forward. These devices are designed for people with lower leg injuries, i.e. below the knee, guaranteeing 100% non-weight-bearing, while still offering full mobility.

Custom Orthotics

Orthotics are devices that are used to:

- align and support the foot or ankle;
- prevent, correct or accommodate foot deformities; and
- improve the overall function of the foot or ankle.

These devices can be pre-made and bought off the shelf (available in many health care stores), or custom-made to fit your feet (prescribed by physicians, podiatrists and chiropodists, pedorthists and certified orthotists). The orthotic provider will guide you through an assessment which should cover:

- Medical history review, including symptoms, previous injuries, lifestyle (occupation and activities), and current and past footwear (fit, style, wear and pattern).
- Examination, including a complete assessment of the lower limbs (foot structure, strength, range of motion, damage and problems).
- Gait analysis, i.e. walking patterns.

Once the assessment has been completed, the provider will inform you of all the options, including costs. If you decide to proceed, the custom orthotic will be made by taking a mould to ensure that the device is made to the shape of your foot. Casting techniques include foam box casting, plaster of paris slipper casting, contact digitizing and laser scanning.

After receiving a custom orthotic, make a follow-up appointment for 2-6 weeks along to check that it still fits.

Diary of Progress

Week # 1	S	M	T	W
Pain Level 1 = none, 10 = high level				
Pain Medication Number of times needed				
Wound Check Redness – Swelling – Heat – Pain at Site – Other				
Redness or Swelling Yes/No/Location				
Usual Medications Taken Yes/No				
Exercise and Activity Note increase/decrease in time or distance				
Normal Activities Note changes in daily ability				
Cast Care				
Ability to Bear Weight				
Other				

Week # 2	S	M	T	W
Pain Level 1 = none, 10 = high level				
Pain Medication Number of times needed				
Wound Check Redness – Swelling – Heat – Pain at Site – Other				
Redness or Swelling Yes/No/Location				
Usual Medications Taken Yes/No				
Exercise and Activity Note increase/decrease in time or distance				
Normal Activities Note changes in daily ability				
Cast Care				
Ability to Bear Weight				
Other				

W	Th	F	S	Notes

W	Th	F	S	Notes

Week # 3	S	M	T	W
Pain Level 1 = none, 10 = high level				
Pain Medication Number of times needed				
Wound Check Redness – Swelling – Heat – Pain at Site – Other				
Redness or Swelling Yes/No/Location				
Usual Medications Taken Yes/No				
Exercise and Activity Note increase/decrease in time or distance				
Normal Activities Note changes in daily ability				
Cast Care				
Ability to Bear Weight				
Other				

Week # 4	S	M	T	W
Pain Level 1 = none, 10 = high level				
Pain Medication Number of times needed				
Wound Check Redness – Swelling – Heat – Pain at Site – Other				
Redness or Swelling Yes/No/Location				
Usual Medications Taken Yes/No				
Exercise and Activity Note increase/decrease in time or distance				
Normal Activities Note changes in daily ability				
Cast Care				
Ability to Bear Weight				
Other				

W	Th	F	S	Notes

W	Th	F	S	Notes

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Important Dates and Appointments

Date	Appointment Notes

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