Limb Loss
Post-operative Care

A guide from the Capital Health vascular surgery team and other health care workers to help you understand what will happen before and after surgery, and how you may feel. The guide also covers how to care for your amputation in the future, and how to adapt your lifestyle to this change.
Limb Loss

The need for an amputation is fairly common. In Nova Scotia over 100 people each year have a major amputation.

**This booklet will help you get ready for your surgery by letting you know what to expect in the days to come. Feel free to ask questions.**

The Healthcare Team at the Halifax Infirmary will help you to do as much as you can on your own after your surgery. Members of the team are: doctors, nurses, an occupational therapist, a dietician, a physiotherapist, a social worker, a spiritual care advisor, and you.

**You are the most important member of the team.**

**Why are amputations needed?**

The most common cause of amputation of a lower limb in older people is poor blood flow in the arteries of the leg. Smoking is one cause of narrowing of the arteries. This leads to poor blood flow in your body.

If you lost your limb because of poor circulation, diabetes or other conditions, it is important for you to learn about these conditions. This may help to prevent further complications.

If you have any questions about the reason for your amputation, ask your doctors or nurses to explain it to you.
Levels of lower limb amputation

There are many factors that determine how much of the limb is amputated. The level of your amputation will be used in conversations with you by the team. The amputation levels are listed here so you can get familiar with them. Here are the most common abbreviations and names used (in brackets) with their medical term, if they differ:

A - Hip disarticulation
Amputation is at the hip joint with the entire leg removed.

B - Above the knee
Amputation occurs at any level between the hip and knee joints.

C - Through knee amputation
Amputation occurs at the knee joint.

D - Below the knee amputation
Amputation occurs at any level between the knee and the ankle.

E - Foot amputation
Amputation of any part of the foot. This includes a Syme amputation (through ankle), forefoot amputation (transmetatarsal), and toe amputations.
Who is on my health care team?

The team will work with you to come up with a safe plan for your discharge from the hospital following your surgery.

**Surgeon:**

The surgeon and their team of clerks and medical residents will do your surgery and following medical care.

**Nursing**

Nurses are generally available 24 hours a day. Your nurse will:
- Help you with your personal care,
- Ask about your pain and give you medicine if needed to manage your pain,
- Change your bandages and watch for infection, and
- Tell you what to expect before and after your surgery.

Each ward has a Charge Nurse who meets with the surgeon every day.

**Physiotherapist:**

The physiotherapist (PT) will help you start moving again. This will begin the day after your surgery. They will work with you to help improve your strength, mobility, and balance.

The physiotherapist will teach you exercises to improve the movement in your limbs. They will help you decide if you need a walker or crutches.

**Occupational therapist:**

The occupational therapist (OT) will help you learn to manage every day activities such as washing and dressing, using the bathroom, cooking, and doing housework.

The OT will suggest aids that will allow you to do more things on your own at home, for example a wheelchair or tub bench. The occupational therapist will help you to arrange loan or purchase of specific items as needed.

The OT may visit your home to see if any changes are needed. With other team members the OT will also teach you how to help shape and position your limb and may make a limb protector following surgery.
Social worker: __________________________

The social worker will help you and your family. The social worker may arrange family meetings to help plan your care. The social worker can offer emotional support, and grief and adjustment counselling to help you come to terms with your limb loss.

The social worker can talk with you about any concerns that you may have about your hospital stay, the lifestyle changes you may face, finances, and plans to return home.

Dietician: __________________________

The dietitian will give you information to help you make healthy food choices at home. You will also get resources to help you make good food choices for problems you may have such as diabetes, high blood pressure, and high cholesterol.

Sometimes people need tube feeding or intravenous (IV) feeding when they are in hospital. The dietitian will talk to you about this if needed.

Continuing care

Continuing care programs and services help people live safely in the place they call home. Our goal is to help people live well at home for as long as possible. A Care Coordinator will assess your needs for care, determine what you are eligible for, and set up the services that are right for you.

Continuing care services that can be set up from hospital include: personal care, home support services, in-home family relief/respite services, nursing services, home oxygen services, palliative care, HELP bed loan program, community occupational therapy and physiotherapy, Home Again Program, and Wheelchair Loan Program (pending OT assessment).

If services are not required for discharge from hospital, you can call to be assessed from your home by a Community Based Care Coordinator. Anyone can call Continuing Care to make a referral. You don’t need a doctor’s referral. The toll free number is 1-800-225-7225.
**Spiritual and religious care** *(available on request)*

Chaplains are available to provide spiritual and/or religious support and counseling to you and your family. You do not need to be affiliated with a religious tradition to access spiritual care. If you are experiencing spiritual distress due to your hospitalization, surgery and recovery, such as feelings of grief or loss of hope and meaning, you can ask to have a chaplain visit you.

Chaplains also facilitate the provision of sacraments and rituals you may require. Chaplains will respond to requests for cultural and religious resources.

**Pharmacist:**

The pharmacist works with your health care team to make sure your medications are the right ones for you at the right dose. They make sure your medications are safe and do not interact with each other. Pharmacists can answer any questions you have about your medications. Pharmacists will work with your health care team and drug plans to find the most affordable medications for you.

If you would like to see a pharmacist at any point during your visit, please let your nurse know.
What will happen before surgery?

- Your nurse will explain what to expect over the next few days.
- Your doctor will talk with you about the operation. You will be asked to sign a consent for surgery form.
- An anesthetist (a doctor who puts you to sleep) may visit. A light sedative may be given to help you sleep and relax.
- You cannot eat or drink after midnight on the night before your surgery.

What can I expect after surgery?

- The operation will take about 1 hour.
  - You will then be taken to the Recovery Room.
  - After a few hours, you will be brought back to your room.
- There will be an intravenous (IV) in your arm to give you fluids and medicine. This will be removed when you are drinking well and your IV medicines are stopped.
- You will need to start deep breathing and coughing exercises as soon as you are awake. It is important to do these every hour during the day.
- You will have help to sit in a chair the day after your operation. We will teach you how to move from the bed to a wheelchair and from the chair to the toilet.
- There will be a bandage on your leg. Your incision will be cleaned every day and a light bandage will be put on.
- Shaping of the limb may start as early as one day after your surgery. This is done with a pressure bandage.
- The stitches or staples (metal clips) are usually taken out in 4 weeks.
Incision healing

It may take weeks for the incision to heal completely. Part of the incision may be slow to heal. It may have a scab or drain a clear yellowish fluid. This is nothing to worry about. Your doctor or nurse will talk with you about cleaning and dressing your incision.

Sometimes, a part of the incision may get infected. Signs of infection include:

- Heat
- Redness
- Swelling
- Discomfort
- Cloudy yellow or green bad-smelling drainage
- Fever
- Chills

Contact your doctor if you think you have an infection. Antibiotics may be needed.

Part of the incision may open up. Notify your nurse or doctor right away if this happens to you.

Smoking slows wound healing so you should quit smoking. If you feel you need help to quit, ask your doctor.

How will I feel after surgery?

Loss of a limb, whether from disease or an accident, is a very stressful life event. It affects not only you, but your family members as well.

People have a wide range of feelings after surgery. They may welcome the relief from pain, but at the same time be angry or upset by the loss of the leg. Some people are afraid of the unknown. Others feel anxious or angry about the changes they have to make in their lifestyles. These are all normal and common ways to feel.

Sometimes you may need extra help dealing with your feelings. Friends, family, healthcare team members, and other people who have had amputations can give you support. Do not be afraid to talk about this important part of your life.
Coping with limb loss

Introduction
Amputation means you will face new challenges. These can be physical, emotional, social, spiritual, and financial. Emotional responses to amputation are different for every individual and their family. It is common to feel a sense of grief and loss. How people respond to their amputation depends upon their unique make-up (personality, values, and attitudes), life experiences, support systems, and the meaning they give to their amputation.

What will I feel after having an amputation?
You may have feelings of sadness, anxiety, anger (directed towards self, family or caregivers), depressed mood, shock, denial, ambivalence, hopelessness, helplessness, numbness, or disconnection. These feelings may be frightening and overwhelming at first.

Some people report feelings of relief if their amputation was planned. There is freedom from pain and improved function in many cases. People often compare their feelings to being 'on a roller coaster ride'. Like riding a roller coaster, they feel they have little control over their lives. They may experience 'highs and lows' ranging between optimism and despair. These feelings are normal and are an important part of the healing process.

These new feelings may affect how you usually deal with daily life. For example, many people like to read as a way of coping with stress. After an amputation, you may find it difficult to concentrate, which is common. You may have trouble focusing on reading even if you enjoyed it before. You may need to develop new ways of coping to help with the stress related to your amputation. These intense feelings will settle over time.

What helps?
1. People say that what really helps in the long term is to find positive meaning and purpose after their amputation. Once you have found meaning and purpose in your activities, you may say things like:
   • “I had no idea that I am such a strong person!”
   • “I’ve discovered that I have a creative side and can find new ways to do things”
   • “I took things for granted until I lost my leg - now I realize what is important to me.”

Amputation is a profound loss that affects the individual and their family on all levels. How you choose to deal with your amputation will influence the quality of your life. So much is up to you!
2. Being dependent for a time and feeling a loss of control is one of the challenges that people experience after amputation. It is important to recognize what you can control, and what things are beyond your control for now. Regaining control over your life can begin in small ways, for example:

- Take control of decision-making as soon as possible. Family may have had to make decisions for you while you were unwell.
- Be clear with yourself and others about what you are capable of doing for yourself and how they can help if need be.
- Recognize that your dependence on others will lessen as you regain your independence and feel more comfortable asking for help.

3. Attending to your spiritual needs is a way of connecting with your inner self. Spirituality provides a deep connection to something bigger than your everyday life. Religion, meditation, music, exploring nature, being with other people, and having hopes and dreams are examples of ways to develop your spirituality. Spirituality helps people to recognize that their physical appearance is just one part of who they are.

4. Talk to people who are good listeners, those who have a positive outlook, and those who have your best interests at heart. Ask for honest feedback. It is through talking with good listeners that people come to know how they really feel, what their amputation means to them, and how to move forward with their lives.

5. Appreciate how your body still works for you. Recognize what you have, and not only what you have lost. Consider the strength it took to get as far as you have and give yourself well-deserved credit!

6. Letting go of the way things were can help shift your focus to the possibilities of the 'here and now' as well as the future. Living in the present will help you accept what has changed and to make the most of your life today.

7. Keep a journal to record important telephone numbers, dates of important events, names of resources and so on. People report that recording their feelings (challenges and successes), goals, and hopes for the future is very helpful in seeing how far they have come since their amputation.

8. Try not to worry about others accepting your amputation. People generally interact with you with the same level of comfort that you have with yourself. It is important to cultivate a positive attitude towards yourself - it’s catching!

9. Remember that you have a Care Team to help you with the details of what you need to move forward. You aren’t alone and you will have help making plans for discharge and for your future.
10. People often report that their first public outing is scary. It might help to practice the outing. Go to the place and check out the washrooms, parking, stairs/elevators, and see how accessible it is. Decide who will come with you and what equipment you may need. This rehearsal should help make your first outing a positive experience.

11. Taking care of yourself physically is now more important than ever. This includes eating nutritional foods and getting enough sleep. As hard as it may be, try to find new ways to exercise so that you can maintain the fit of your prosthesis and/or wheelchair. Remember, overuse and/or abuse of alcohol and medications will increase your risk for falls. If you are a smoker, the single best thing you can do for your health is to quit. There are sources of help for you to do this.

12. Know when to ask for support. If you think you might be depressed or family and friends are worried about how you are coping, consider talking to a health care professional such as a Social Worker or Psychologist. There are counseling resources in the hospital and in the community.
Will I have pain after surgery?
It is natural to have some pain after your operation. This should improve as your leg heals. Talk to your doctor, nurse, or other team member about ways to deal with your pain. Pain medicine will be given.

Muscle twitches and cramps
The muscles of your leg may twitch or jump for the first few months after your operation. Although this may startle you, it is nothing to worry about. Your muscles are getting used to the amputation. If cramping is a problem, you can help by stretching the cramped muscles of both legs and breathing calmly. Sometimes you may have sensations which seem as if they are coming from the part of your limb which has been removed. This is referred to as phantom sensation or phantom pain.

What is phantom sensation?
This is the feeling that the amputated body part is still there. This is normal. It can feel like tingling, pressure, warmth, cold, wetness, itching, tickling, or fatigue in the limb that has been removed.

What is phantom pain?
People with an amputation occasionally have the feeling of pain in the missing limb. This pain may feel like:
- Squeezing
- Shooting
- Cramping
- Stabbing
- Burning
- Unnatural positioning

Is phantom pain normal?
You may have phantom pain. If you had a lot of pain before your amputation, it is common to have phantom pain.

It will usually decrease over time. It may be mildly annoying to severe.

Things that may make surgical and phantom pain worse
- Very hot or cold temperatures
- Emotional upset, sleeplessness, or being anxious
- Something tight blocking blood flow to the leg
- Wound infection
• Keeping your leg in one position too long
• Scar tissue forming
• Some infections and viruses, for example, cold, flu, or throat infection

Tips to help deal with the pain
• Practice good hygiene and care of your amputated leg.
• Wrap your amputated leg in a warm blanket.
• Massage, tap, or rub your leg with a piece of terry cloth (towel).
• Mentally exercise your leg - pretend you are moving the part of your leg which is no longer there.
• More blood flow to your leg can lower your pain. Try mild exercise to improve blood flow. For example, slowly tighten and then release the muscles of your amputated leg.
• Elevate your whole leg to prevent swelling. (Do not just put a pillow behind your knee.)
• Change your position - move around or stand up.
• Keep a diary of when the pain is most severe to help your doctor find out what makes your pain worse.
• Use relaxation exercises, deep breathing, or imagine a pleasant place.
• Ask your doctor about these other ways to control your pain: self-hypnosis, biofeedback, TENS, acupuncture, medication, or support groups.

Medication should not be the only treatment for your pain. Medication should be used along with an exercise and stretching program.

Possible hazards
Be careful particularly when getting up during the night. If you feel the limb is still there, you may stand up without thinking, lose your balance and fall. Keep your walker or wheelchair close to your bed.

Severe pain can affect your sleeping, walking, mood, daily activities, and personal relationships. It is important to report it to your doctor or any healthcare team member.
What can I eat after surgery?

Healthy eating is very important after your surgery. You need nutrients from food to heal your incision. Follow Health Canada’s Food Guide when choosing what to eat. This can help you get the food your body needs. It is important to let your dietician know if you follow a special diet at home, for example a diet for diabetes or a kidney diet.

After surgery, it is very important to eat enough every day. You may find that your appetite is low. If this happens, the dietician will work with you to make whatever changes we can to your meal trays. Favorite foods can be brought in from home. Once you are able to get out of bed and move around, you may find that your appetite comes back quickly.

How do I position myself?

Lying in bed

Always keep your leg flat and legs together.

Do not put a pillow under your hip or knee. Over time this could cause a loss of movement in your hip or knee joint.

If you are able, lie flat on your stomach for 15 minutes twice a day to stretch out your hip joint. Turn your head away from your surgery side.

Sitting

Do not sit for a long time. Do not slouch. Use a firm seat cushion. If your leg has been removed below your knee, do not let your limb dangle. This can cause pain and swelling and will slow down your healing. Always rest with the end of your limb supported.
Standing
Try to keep your limb relaxed, in line with your body and straight down toward the floor.

REMEMBER:
- Keep your leg supported while sitting
- Do not hang your leg over the edge of your bed or chair
- Do not place a pillow under your hip or knee while sitting or lying
- Do not lie with your knees bent

Limb shaping and swelling control

Wrapping your limb
Limb wrapping is used following surgical amputation to:
- Help control swelling
- Begin shaping the leg
- Help keep dressings in place as activity increases
- Provide support / protection for the limb and improve general comfort

Materials:
- Two or more rolls of elastic bandage are needed, depending on the size of the leg.
  - 4” or 6” Ace bandage used for above the knee amputation
  - 4” Ace bandage used for below the knee amputation
- Use medical tape to secure the bandages.
- Always use a clean wrap with good elastic quality.
Principles of wrapping
There are several things to keep in mind when wrapping a limb post-operatively:

- Avoid starting in bony areas that might experience skin breakdown.
- Use diagonal turns when wrapping. Horizontal turns will reduce blood flow in the limb and slow healing.
- There should be more bandage pressure at the bottom of the leg and less as you move up the leg.
- Make sure all the skin is covered with the bandage, including the corners of the leg.
- If your leg is removed below your knee, make sure the bandage goes above the knee joint with your leg straight.
- If your leg is removed above your knee, make sure the bandage goes well up into your groin so that no flesh hangs over the top.
- Apply the wrap smoothly, avoid wrinkles.
- Use medical tape, not metal clips to secure the bandage. Do not use tape on the skin.
- Check the bandage tension when you are finished. If you are not satisfied with the wrap, remove it and reapply.
- Use the pad at the base of your thumb as a judge of the amount of tension you should feel on the bandage when you have completed the wrap.
- The wrapping will need to be redone every 4-6 hours to check the skin. Rewrap if it gets too loose.
- If it feels too tight, take off the bandage. A tight wrap can do more harm than good.

Below knee amputation
A. Start at the front end of the limb. Pull wrap around to back, being careful not to pull on the incision.
B. Start making diagonal turns, applying firm pressure to the sides of the limb. Pull in the fleshy corners as you go. Make sure there are no gaps, bulges, or wrinkles in the wrap. These could cause pressure points or skin sores.

C. Continue making diagonal wraps in an upward direction. Never use circular (horizontal) turns because they can cut off the blood flow and delay healing. Apply less and less pressure as you move up the leg.

D. Continue on until well above the kneecap. Fasten the end with medical tape. Never use safety pins or clips.
Above knee amputation

A. Start at the front of the end of the limb. Pull wrap around to back, being careful not to pull on the incision.

B. Start making diagonal turns applying firm pressure to the sides of the limb. Pull in the fleshy corners as you go. Make sure there are no gaps, bulges, or wrinkles in the wrap. These could cause pressure points or skin sores.

C. Continue applying the bandage in diagonal turns up to the groin area. Be sure to include all the soft tissue inside the thigh at the groin.
D. Carry the bandage around the outside of the hip and then up across the pelvis. It should cross just below the waist on the non-amputated side.

E. Bring the wrap back around the opposite side just below the waist, back through the groin area, and then fasten the tape.

*Care of elastic bandages*

- Use a clean bandage every time you wrap.
- After use, wash the bandage in warm water with mild soap and rinse well.
- Gently squeeze the water out and lay the bandage on a flat surface to dry.
- Do not put in the dryer.
Care of your amputated leg
After your wound is healed and the stitches or staples are removed:

• Wash your leg every day with plain mild soap and water. Do not soak your leg for long periods. This may make the incision and skin too soft.
• Rinse your leg well to remove all the soap. Pat or gently rub the skin dry. Make sure all the skin folds are well dried. When the leg becomes less painful, rub it dry to toughen the skin.
• Never rub alcohol on your limb. This may make your skin dry and crack open.
• Moisturize your skin. Place a very small amount of lotion on your hand. Massage your leg after it has been washed and dried. Massage will make your skin and muscles less sensitive.

This can also keep scar tissue from forming between the soft tissue and the bone.

Check the skin on your amputated leg morning and evening. Use a mirror for the areas you can’t easily see. The following changes should be reported to your family doctor:

• Rash or redness
• Swelling
• Blisters
• Chafing or sores
• Open areas
• Drainage from an open area

Protecting your amputated leg
You are most likely to injure yourself when moving from your wheelchair to your bed, toilet seat, the exercise mat, or when attempting to stand, especially if you still feel your phantom leg.

You may have a plastic cap made by the occupational therapist. It can be removed when resting, sleeping, or during mat exercises. Your cap may need to be changed or replaced when your wound dressing becomes unnecessary or if your leg shrinks in size. If the cap is loose or uncomfortable, let your occupational therapist know.
Care of your other leg and foot
Diseases such as diabetes and peripheral vascular disease can lower the blood supply to the legs and feet. The reduced blood supply damages the ability of the nerves to tell you if there is something wrong with your legs or feet. You may be unable to tell when you have pain, burning, or more serious problems like open sores. Signs of changes in circulation are loss of hair on your leg or feet, decreased feeling, sores and or brown staining of the skin.

Leg care
• Examine daily for cuts, scrapes, or swelling.
• Avoid garters, knee highs or socks with tight elastic at the top.
• Socks should be soft, warm, dry, and have very few seams.
• Avoid elastics on the bottom of pant legs that might reduce blood flow.
• Do not cross your legs when sitting.
• Wear compression stockings for increased swelling and circulation if recommended by your doctor. Make sure it does not form a roll at the top. This could cause swelling in the lower leg and foot.

Foot care
• Examine your foot daily. Look for cuts, blisters, sores, dry scaly skin and cracks, especially between the toes.
• Open areas should be seen as soon as possible by your doctor or nurse. Also watch for changes in the skin colour, swelling in your lower leg or foot, and areas which are not healing.
• Wash your foot and leg daily with mild soap and lukewarm water. Dry well, especially between the toes.
• Do not soak your feet.
• Keep feet clean.
• Do not rub fragile skin. Pat skin dry.
• Prevent cracking. Apply rich moisturizing cream to feet, but not between toes.
• Avoid extreme heat or cold. Heating pads and hot water bottles can burn healthy tissue.
• Do not cut corns or calluses. Seek professional help.
• If feet sweat, make sure socks are changed often to reduce the chance of fungal infection. Fungus and yeast infections result in loss of nails and a long history of skin problems.

• Never walk in your bare feet or sock feet. Always wear proper fitting footwear (length and width) to avoid injury.

Nail care
If you have poor vision, poor hand grip, or are not able to manage your nail care ask the nurse or health professional to help you find the resource you need in your area.

• Do not soak foot immediately before cutting nails.

• Cut nails straight across the end.

• Smooth edges with file to avoid sharp edges and corners.

• For thick nails that cannot be cut, use a file to reduce the length or thickness of the nail.

Shoes
• Wear the correct shoe size to fit both the length and width of your foot. If you have no feeling in your foot, you could develop sores if they do not fit properly.

• Shoe seams and straps should not cause pressure spots on the foot.

• The shoe should match the shape of the foot. Do not squeeze your foot to match the shoe shape.

• Wear leather, not vinyl, shoes.

• Always inspect shoes for pebbles or sharp objects inside shoes before putting them on.

• Slippers and sandals do not give enough support.

Orthotic services can help with shoe fitting. They are accessed through a consult from your doctor.

There are foot care specialists available in the community who can help you if needed. Ask a health care professional for assistance if you are unsure.

There are clinics provided by pharmacies, Victoria Order of Nurses (VON), and Diabetes Clinics. In more complicated cases, a foot doctor (podiatrist) may be consulted to manage your foot care.
Exercise

It is important to exercise. Keep doing all of the exercises that you learned during your hospital stay. Stay as active as possible. This will help to increase your strength and ability to do things on your own.

Staying active

• Makes your muscles stronger and healthier
• Keeps your joints moving
• Strengthens your heart
• Improves your balance
• Improves your breathing
• Helps with pain control, especially phantom pain
• Keeps your arms, legs, and body from stiffening up

All of these things will make you stronger and give you more energy for walking or wheeling a wheelchair. It will help you be more comfortable and independent.

Flexibility

Lying in bed or sitting for long periods of time can cause stiffness in your joints and muscles. When a joint cannot move fully, we say it has a “contracture”. Contractures can be painful.

You can help prevent contractures by:

• Lying as flat as you can on your back, rather than being propped up.
• Using a firm mattress.
• Not putting pillows under your legs.
• Lay flat on your stomach for at least 15 minutes twice a day. Do not use a pillow and turn your head away from the side with the amputation. If you find that this is uncomfortable for your neck, put a pillow under your chest.
• Sit with your back straight and well supported. Do not slouch. Have a firm seat cushion.
• Keep your knee as straight as you can.
• Support your stump on a firm surface.
• We may suggest your wheelchair be fitted with a board to keep your knee from bending.

Prevention is much easier than trying to fix a major problem.
Walking
We may help you learn how to use a walker or crutches during your hospital stay. We do this because it will:

- Be good exercise in general
- Keep your remaining leg in shape
- Help you develop strength and balance
- Give you a way of getting around

Post-operative and home exercises

Tighten the muscles on the top of thigh, push back of knee into bed. Hold ____ seconds, repeat ____ times, ____ times a day.

Place a large can or roll under knee, straighten leg. Hold ____ seconds. Repeat ____ times, ____ times a day.
Lie on one side, lift top leg towards ceiling. Repeat ____ times, ____ times a day.

Gently bend one knee as far as possible, return to resting position. Repeat ____ times, ____ times a day.

Lying on your back, with knee bent and foot flat, lift bottom off bed. Hold ____ seconds, repeat ____ times.
Lie on stomach with hip and knee straight for 15 minutes, twice daily.

Pull one leg to chest, push other leg into bed. Hold ____ seconds, repeat ____ times.

Place a folded towel under leg, push leg into towel, hold ____ seconds. Repeat ____ times. Repeat with other leg.
Getting around

*Do I need a wheelchair?*

Whether you need to buy a wheelchair will depend on many things. Most people who have an amputation eventually use a wheelchair for all or part of their day. You may need a wheelchair:

- First thing in the morning before getting dressed. Some people with amputations will use their wheelchair to go to/from the bathroom and get washed.
- In the community or for longer distances.
- When recovering from skin breakdown or problems with either leg.
- When safety is a concern or your balance is poor.

The type of wheelchair needed depends on many things. When someone uses a wheelchair daily or for long periods of time, a custom wheelchair will likely be needed. It will help prevent skin breakdown, joint stiffness, and provide proper support for your legs.

When someone uses a wheelchair occasionally, a wheelchair can be rented or borrowed from the Red Cross equipment loan program.

Using a wheelchair in your home may mean:

- Building a ramp
- Re-arranging furniture, removing carpets/rugs
- Widening doorways

Your occupational therapist can give you more detailed information.

*Wheelchairs*

Until you know what is best for you, plan to rent or borrow a wheelchair rather than buying one. If you plan to buy a wheelchair, have an occupational therapist prepare a proper prescription.

When you get a wheelchair, look for these features:

- Full length armrests
- Swing-away leg rest/footrest
- Anti-tippers
- Rear-axle adaptors
- Cushions
- Back-rests
- Solid seat
Wheelchair safety is very important and requires some training. Here are some rules:

- Put brakes on firmly when stopped or getting out of the wheelchair.
- Swing footrests out of the way before standing.
- Do not stand on the footrest.
- Do not push the wheelchair too quickly when starting off, it may tip.

**Transfers**

Getting safely to and from the wheelchair to the bed, toilet, tub, exercise mat, and car is important. This is a skill you will develop with the help of your therapist. Special equipment or techniques to improve independence and safety will be discussed.

**Managing wheelchairs on stairs**

There are significant risks to getting a wheelchair up and down stairs, especially on an on-going basis. We do not recommend this method be used on a regular basis or without instruction from your therapist. It should be used only in an emergency or on a temporary basis.

Please ask your occupational therapist or physiotherapist for instructions on how to manage your wheelchair safely.

**Managing stairs in a sitting position**

**Safety essentials:**

- Make sure you have a waist belt in place in case you need help.
- Make sure that the area around the wheelchair and stairs are clear of obstacles, e.g. footrests, leg support etc.
- You will need a stool at the top of the stairs.

**Going up stairs:**

Step 1: Place a 12 inch (30 cm) high stool at the top of the stairs.

Step 2: Use one rail to assist you to stand and pivot around on your foot to sit on the second step.

Step 3: Have someone move your wheelchair to the top of the steps and position it behind the stool.

Step 4: Position your hands on the step behind you. Bend your left hip and knee and position your foot on the step below you. Lean forward as you push with both your arms and leg to move up to the next step.
Step 5: At the top of the steps, move up onto the stool and then move from the stool into your wheelchair. Remember to lean forward.

**Going down stairs:**

Step 1: Bring the wheelchair to the top of the steps. Position the stool in front of the wheelchair.

Step 2: Keep your hands on the sides of the wheelchair and your foot over the top of the stool. Slowly lower yourself down onto the stool and then onto the floor.

Step 3: Position your hands on the floor or step and stretch your leg out putting your foot onto a lower step. Then lower yourself down to the next step.

Step 4: When you are sitting at the second last step, have someone position your wheelchair at an angle to the bottom step. Make sure the footrests and leg support are moved out of the way and the wheelchair brakes are on.

Step 5: Use one hand on the rail and the other on the wheelchair to stand up and pivot around to sit in the wheelchair.

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**Using a walker**

A walker will help you to move around in your home and community. A physiotherapist will help you choose the walker that’s right for you.

When you get your walker, check it out by following these guidelines:

- Make sure the walker is ready to use. You will need rubber wheels on the two front posts to make the walker easier to move.

- **Is the walker the right size?** When you are standing with your arms resting at your sides and the walker in front of you, check the placement of the hand supports. The handle should come to the crease in your wrist. When you grasp the walker, your elbow should be slightly bent – never straight.

Remember that walking with a walker takes practice. Do not get discouraged if you have some problems at first.

**Using crutches**

Crutches may help you to move around in your home and community. A physiotherapist will help you decide whether crutches are right for you.

When you get your crutches, check them out by following these guidelines:

- Make sure the crutches are ready to use. You will need rubber suction cups placed over the crutch tips to prevent sliding. You will also need rubber pads on the underarm pieces to make them more comfortable. You may also ask that the hand supports be padded.

- Are the crutches the right size? When you are standing with the crutch tips
6 inches (15 cm) from the sides of your feet, the underarm pieces should be about 3 inches below your armpits. If they touch your armpits, ask that the crutch length be adjusted.

- Check the placement of the hand supports. The handle should come to the fold in your wrist. When you grasp them, your elbow should be slightly bent – never straight. When you’re certain the crutches are the right size and properly padded, ask that someone show you how to use them. Remember that crutch-walking takes practice. Do not get discouraged if you have some problems at first.

**Activities of daily living**

The occupational therapist may discuss everyday activities with you. They might include:

- Washing yourself
- Dressing
- Cooking
- Housekeeping
- Driving
- Grocery shopping
- Work or leisure activities

Special equipment may be suggested for safety and to make things easier in your home:

- Raised toilet seat and safety frame
- Bath bench/board
- Grab bars

**Grab bars**

Before you permanently install any equipment in your home, we recommend that you discuss it with your occupational therapist. They will help you choose equipment that is right for you and your home.

Grab bars can help support you while getting in and out of the bathtub or shower or getting up and down from the toilet. Shower curtain rods, sliding doors, soap dishes, facets, and towel racks are not designed to take your weight. Accidents occur when someone tries to support their weight on items like these.

The occupational therapist will help you pick out the correct grab bars to improve safety in the bathtub/shower or by your toilet:

- A grab bar must be installed into the WALL STUDS. If this is not possible,
contact a medical supplier for suggestions.

- A grab bar should have a roughened (knurled) surface for better grip when wet.
- A grab bar should not be thicker than 1.5 inches (4 cm) in diameter (around) for proper grip.
- A grab bar must leave enough distance between the bar and wall to avoid possible accidents such as scraped knuckles.
- A grab bar must be at a height and position that is comfortable for you. Grab bar placement between waist and shoulder height is the best idea.

Grab bars can be purchased from medical supply stores or hardware stores. Medical supply stores will often install grab bars at an additional cost. Check your phone book’s yellow pages or online for local contacts.

Driving after an amputation

Driving safety is often affected by the loss of a limb. If you plan to drive, your own safety and that of others may be at risk. We are required to send a letter to the Department of Motor Vehicles stating that you had an amputation.

The occupational therapist might ask you questions about your driving status and may make recommendations about how you can return to driving. Possible questions include:

- Do you own a vehicle?
- Do you have a valid driver’s license?
- Do you wish to continue driving?

After you have had a change in physical status (amputation), you should contact the Registry of Motor Vehicles and your insurance company to notify them. This is to be sure that you will be driving legally and that your insurance will remain valid in the event of an accident. Generally, the cost of your insurance will not change, however this is determined by your insurance broker.

Note that any physician (doctor) is able to send a letter to the Registry regarding how your change in physical status could affect your driving. The physician is likely to do this near the end of your inpatient admission at the Nova Scotia Rehabilitation Centre (NSRC).

After the Registry of Motor Vehicles is contacted, they will tell you if your license has been suspended for medical reasons. In order to regain your license you may be asked to: complete an on-road driving test (fees are generally involved), participate in the NSRC Driver Evaluation Program (fees involved for on-road exam), have a medical examination, or get a supporting letter from a physician.
stating you are medically fit to drive. A written driving test may be required. You may contact the Registry with questions.

If adaptations are required to your vehicle, you will likely have your license suspended for medical reasons and be required to complete a written test and/or a Registry of Motor Vehicles road test. Once you pass the road test with an adaptive aid, that aid will become a condition of your license.

A referral might be made to the *Driver Evaluation Program* located in the occupational therapy department of the NSRC. This program does not determine whether you will be able to keep your driver’s license or not. It can assess your driving potential, help you decide which aids are needed to return to driving and allows you to practice on a simulator or have an “on-road” driving trial before taking the official Registry on-road driving test.

A **left foot accelerator adaptation** is generally recommended for somebody with a **right leg** amputation. **Hand controls and spinner knob** are generally recommended for somebody with **both legs** amputated. An authorized vendor is required to install this adaptive equipment. Ask your occupational therapist for more information.

The Registry may place a **restriction** on your license stating that you may ONLY drive an automatic vehicle if you have had a **left leg** amputation.

All amputees are eligible for an **accessible parking permit or handicap plates**. You may contact the Registry of Motor Vehicles to obtain an application form, which must be signed by your doctor. Your application is usually processed more quickly if you drop the letter off to the Registry in person, rather than send it through the mail.

You may be eligible for the **Federal Excise Gasoline Tax Refund Program**. Ask your occupational therapist for more information.

**How much will all this cost?**

You may be worried about the cost of special tools, transportation, equipment and/or needed changes to your home. There are programs to give financial help to buy these items and for any changes you may need in your home. The social worker can give you information and help with these things.
What comes next?
When you are discharged from the Halifax Infirmary (HI) you may:

• Go home to heal, or
• Be transferred to home hospital, or
• Be transferred to the Nova Scotia Rehabilitation Centre (NSRC).

If you go home to heal or are transferred to your home hospital:

• You will have a scheduled return visit to HI Vascular or Orthopaedic Clinic to monitor healing
• You may be referred to the NSRC Amputee Clinic to determine functional and mobility goals and future steps to meet those goals

If you go home to heal, you should also arrange follow-up with your family physician.

Transferred to Nova Scotia Rehabilitation Centre (NSRC):

The Rehabilitation team will work with you to determine your functional and mobility goals and establish a plan to meet those goals. Learning to walk again takes time and effort. A prosthesis (artificial limb) may be made for you if it might help you become more independent.

At the Rehabilitation Centre clinic or as an inpatient, you will see a doctor who has special training in rehabilitation, a nurse, a physiotherapist, an occupational therapist, and a prosthetist (a person who makes artificial legs). They will check your leg and general condition. At that time, they will help decide if you would benefit from having an artificial leg.

If use of an artificial leg is not a functional goal, you will be offered rehabilitation to help you be active and do as much as you can on your own from a wheelchair.
Looking for more health information? Contact your local public library for books, videos, magazine articles, and online health information. For a list of public libraries in Nova Scotia go to www.publiclibraries.ns.ca

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