



Living with your Arterial Ulcer

A GUIDE FOR YOU AND YOUR
CAREGIVER



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Introduction

Welcome to the CarePartners Wound Care Team! In the pages of this booklet we will tell you about how we can help you to help your wound.

This booklet is available in paper copy or on line at www.carepartners.ca It is full of information to help you to understand what is going on with your body when you have a wound and what your body needs to heal the wound or, if it can't heal, to feel better.

Sometimes we have to use medical terms, so words in *italics and underlined* will be defined in the glossary at the end of the booklet.



Some information will have web links or a picture of a computer beside it like this. This

means that there is more information either on the internet or on the CarePartners website. You can either click on the link or go to www.carepartners.ca and click on the Health Information tab.

What Is A Wound?

A wound is any break in your skin. Sometimes wounds are called ulcers. The two words mean the same thing. There are many causes of wounds. Sometimes they are hard to heal. Your nurse or doctor will help you to know the type and cause of your wound and why it is having trouble healing. Treatment may include helping you to improve your nutrition, increasing your mobility and activity, removing sources of pressure or friction, addressing specific conditions such as diabetes, improving your blood flow and helping you to reduce the risk of you getting an infection or treating the infection if one is present.

To help your wound heal you may need to change some of your activities and habits.

If you smoke, you will need to consider quitting or if you have diabetes you will need to really follow your diet and monitor your blood sugars. More about that later.



What is Wound Care?

Wound care includes all the activities of managing your wound including what you and your nurse will do to help your wound heal. The nurse will assess you and your wound to determine if your body is ready to heal and will apply dressings to support your wound. Your nurse may need to take pictures of your wound. They will ask you to consent to this.

Wound care also includes teaching you to be as independent as possible with your wound care.

At each visit your nurse will assess your wound to see how it is doing. Different kinds of wounds need different kinds of treatments and dressings. These may change over time. Your nurse may need to contact your doctor or other health professionals to discuss your wound or to get you a special referral if needed.



Sometimes your body is ready for healing and your wound needs minimal support. This is called a healable wound.

Sometimes your body needs specific things to heal your wound like special medication or devices. This is called a maintenance wound and in this case your nurse will discuss with you what needs to change or what you need to do to help your wound to heal.

Sometimes your body is unable to heal your wound. This is called a non-healable wound. In this case your nurse will help you to learn how to manage the symptoms you are experiencing to ensure that you are more comfortable

and to reduce the risk of infection.

I have an Arterial Ulcer. What is that?

To stay alive and to be healthy your body requires fresh blood with lots of oxygen and nutrients (vitamins and minerals) to be delivered to all parts of your body all the time. Fresh blood is pumped from the heart through the lungs to pick up oxygen and then through your arteries to deliver the oxygen to every cell in your body. If enough good quality blood cannot get to all parts of your body then you are considered to have arterial disease. Fifty percent of people living with arterial disease have no symptoms until they get a wound and that wound won't heal.

Three different kinds of health conditions can reduce the amount of fresh, oxygen rich blood that travels to the most distant parts of your body.

Lung Disease

If you have a disease that affects your lungs, like chronic obstructive pulmonary disease or cancer, the blood that travels through your body may not carry enough oxygen and nutrients for your tissues to be healthy.

Heart Disease

If you have heart disease or have a damaged heart and the heart is unable to pump effectively, blood will not be able to reach your legs and feet very well.

Hardening of the Arteries (Atherosclerosis)

If you have damage or disease that affects your arteries like high blood pressure, heart disease, rheumatoid arthritis, diabetes, high cholesterol, or the effects of smoking, then your arteries will be narrowed and unable to deliver an adequate supply of blood.

How did I get this Arterial Ulcer?

Arterial ulcers are usually found on the leg or foot. The cause of the wound can be just about anything from tight fitting shoes or stepping on a tack to nicking yourself when you cut your toenails. Having an arterial ulcer means that you have a wound that won't heal because, either your body cannot deliver blood to the wounded area, or the blood that is delivered is not rich in oxygen and nutrients.

How will I know if I have Arterial Disease?

Your doctor will need to review all of your medical conditions and medications to make sure that they are all being well managed.

- a. **Tests to determine the circulation/blood flow** need to be done to determine if you have arterial disease. Your doctor or nurse will do tests called an Ankle Brachial Pressure Index (ABPI) and/or a Toe Brachial Pressure Index (similar to having your blood pressure taken) to determine the blood flow to your foot.

This can be done in your home, at our nursing clinic or at a vascular lab. If you have adequate blood flow to your foot and toes your chances of healing your wounds are higher and your risk for infection decreases. If you do not have adequate blood flow to your foot and toes your chances of healing are reduced and your risk for infection increases.

- b. Your doctor may refer you to a doctor that specializes in circulation called a vascular surgeon. The vascular surgeon will review your symptoms and possibly do further testing of your circulation such as segmental pressure studies or an angiogram. The surgeon may suggest a procedure called an angioplasty or a surgery to improve your circulation called a bypass and might recommend certain medications.

Things I Can Do to Help My Arterial Ulcer to Get Better

Complete this section with your nurse. Check off as many of the things you think you can try to do to help keep yourself healthy and heal your wound.

I will Try These



If I Smoke:

Smoking tobacco products is known to increase your risk for heart disease and your risk for damage to your lungs and arteries.

I will check out smoking cessation programs.

I will reduce the number of cigarettes I smoke in a day.

I will ask my doctor about help with managing withdrawal from nicotine.

Increasing Blood Flow to my Legs:

I will go for a walk. (How often? How far?)

I will use the treadmill. (How often? How far?)

If I am sitting or standing for long periods, I will get up and walk every half hour.

When I am sitting I will make sure that the seat does not press into the backs of my legs and cut off my circulation.

Skin Care:

The skin on your legs may be dry and fragile. You are at higher risk for infection due to poor circulation. The goal of skin care is to keep your skin clean, protected and moisturized.

I will wash my legs and feet daily using water and a mild, unscented soap.

I will pat my skin dry after washing.

I will moisturize my legs, feet and heels every day after I wash them using a non-scented, pH balanced lotion like Cliniderm or Glaxal Base (but I will not put moisturizer between my toes because it can cause the skin to break down)

I will protect my feet from injury by always wearing shoes or slippers.

I will protect my feet from injury by avoiding tight fitting socks and shoes.

I will protect my feet and legs from extreme temperatures and electric heating devices.

Managing Pain

The reduced circulation in your legs can be painful.

I will start a pain diary so I know what helps my pain and what makes it worse.

I will discuss pain management options with my doctor or nurse practitioner.

I will avoid sleeping in a recliner or with my legs hanging over the edge of the bed as this causes my legs to swell.

I will put the head end of my bed up on 4 or 6 inch high blocks so that gravity helps the blood get to my feet at night.

If the weight of my bed covers increases my pain, I will use a bed hoop or a cardboard box to lift the covers off of my feet and legs.

But First ... Let's Check in!

Sometimes a list of tasks can seem easy to do and because of that we can easily over-commit. Take a look through the list and really think about the tasks you committed to. Ask yourself these questions;

- Do these activities fit with my day to day activities?
- Barriers are things that stand in the way of you being able to complete an objective. Can you think of any barriers that might prevent you from accomplishing them? An example might be *I do not have a safe place to walk*.

Some of the barriers that prevent me from doing these things are:

- How can I overcome these barriers?
- How confident am I that I can complete the tasks (0 is not confident at all and 10 is super confident)?

0 1 2 3 4 5 6 7 8 9 10

If your confidence score is less than 7, you might want to consider removing a ✓ mark or two. If your score is 7 or higher – give it a try!

After 2 weeks of trying to do these things reassess the list using the same process and if you feel confident enough, add a new task or two. Choose the tasks that are most important to you and you are most confident that you can complete.

Remember - you do not need to accomplish this all on the first day – *this is a journey!*

What do I need to Know about Wound Dressings?

If you are not a candidate for surgery, then your arterial ulcer will likely be classified as a non-healable wound. The goal of wound management will be to help reduce your risk for infection and manage symptoms. The initial plan will be to keep your wound clean and dry.



The nurse may apply dry dressings and antimicrobial solutions.

If your doctor or nurse tells you that you have dry gangrene in a toe, the toe will be allowed to dry out and may fall off. Always notify your doctor or nurse if a dry toe gets wet and boggy.

Your nurse may teach you how to change your dressings. They will show you exactly what to do, order your supplies and check in with you on a regular basis to see how you are doing.

Refer to the section called “How to Change my Dressing”.

Will My Wound Be Painful?

Sometimes wounds hurt. Pain can interfere with your daily activities, reduce your appetite and make it hard to sleep. It can even slow the healing process. Most pain can be treated effectively with medication or other therapy.

If you have pain from your wound talk to your nurse so that they can suggest medications or other therapy to reduce your pain.

You will be asked to rate the intensity of your pain with 1 being the least painful or no pain and 10 being the worst pain you have ever experienced. Your pain rating will change, and pain should decrease with the right dressing and as your wound heals.

Your nurse will want to know the answer to the following questions.
Write your answers on this chart to discuss them with your nurse.

When does the wound hurt?

Rate your pain 1 2 3 4 5 6 7 8 9 10

What makes your wound feel worse?

What makes it feel better?

The medication I will take for my pain is:

I take it every ____ hours.

Side effects I need to be aware of are:

If your doctor prescribes medication for your pain, please take it as prescribed. Sometimes people stop taking their medications because they feel better, but the reason they were feeling better is they were taking their pain medication! Follow the instructions; don't take the medication more often than prescribed.

If you aren't on routine pain medications, have medicine that you can take when you

need it. Take your medicine about an hour before you are going to have your dressing changed so that it has a chance to get working. As your wound healing progresses you may be able to reduce your pain medications. Talk to your nurse about this.

Is My Wound At Risk For Infection?

All wounds are at risk for infection. Infection happens when harmful germs contact the wound. .

There are many ways to reduce the risk of infection. Your nurse will teach you how:

- To perform *hand hygiene* by washing your hands or using antibacterial hand rub before and after you do your dressing,
- To keep your dressing supplies in a clean container and away from pets.

Your nurse has been trained to recognize the signs of infection. Some kinds of wound infection are called *Superficial Infections*.

This means that the *germs* are only on the surface of the wound. They won't make you sick, but they can slow wound healing. You may see an increase in drainage, odor, pain or some redness around the wound, but you won't have chills or fever because of it.

Superficial infection is managed with specialized *antimicrobial dressings*. Your nurse may decide to use one of these if they think your wound needs it. Your nurse will not take a *swab* when they determine that you have a superficial infection as swabs do not tell us if the wound is infected. We don't use antibiotics for Superficial Infection.

Another, more serious kind of infection, is called *Deep Tissue Infection*. In this case the germs have spread to your body and are making you sick.

You may see redness and swelling spreading beyond the wound. The pain may increase, and you might spike a temperature or have chills. This kind of infection needs a prescription for antibiotics. Your nurse will take a swab if they think that you have a Deep Tissue Infection so that your doctor will know what antibiotics will be effective. If you are given antibiotics be sure to take them as prescribed and finish them.

If you think you have Deep Tissue Infection you should see your doctor right away or go to the nearest Hospital Emergency.

How Does What I Eat And Drink Affect My Wound?

Wound healing requires good nutrition. Your body needs extra protein and vitamins and minerals to heal.



Here are Some General Guidelines to Consider:

- Don't try to lose weight when you have a wound to heal
- Try to eat a variety of foods following Canada's Food Guide
 <https://www.canada.ca/en/health-canada/services/canada-food-guides.html>
- Don't skip meals
- Your body needs fluids. Try to drink 6-8 glasses of water or other fluids per day. Drinks with caffeine can cause you to lose fluids, so do not count them in your total
- If you have been told to limit your fluid intake by your doctor, be sure you follow those instructions
- If you are on a restricted diet for some other reason it could be hard to get all your nutrients. Consult a dietician or a nutritionist for more information
- If you don't feel hungry try to eat smaller meals more frequently
- Weigh yourself once a week. If you are losing weight you may have trouble healing your wound so contact your doctor
- Take a multivitamin
- If you find it hard to eat a balanced diet, try a protein shake or buy a food supplement. There are some recipes in our Nutrition Guide found on our website at www.carepartners.ca. Look under the tab that says Health Information. 

Here are Some Examples of Nutrients in Foods:

Discuss these with your nurse. Circle the foods you will try to eat more often:

Vitamins & Minerals	Food Source
Vitamin C	Citrus fruits & juices (oranges, lemons, limes, grapefruit), berries, sweet peppers, Brussels sprouts, cantaloupe, tomatoes, cauliflower, broccoli, potatoes, bok choy, kimchi, sauerkraut
Vitamin A	Liver, milk/dairy, eggs, fish oils, leafy green vegetables, orange and yellow vegetables
Vitamin E	Delays wound healing. If you are taking a Vitamin E supplement stop while your wound is healing.
Zinc	Meat, fish, seafood, poultry, liver, eggs, milk, legumes, chick peas, whole wheat bread, wheat germ
Iron	Meat, poultry, fish, organ meats, eggs, legumes, nuts, dried fruit, fortified breads, cereals and pastas, tahini, kimchi, sauerkraut
Protein	Meat, fish fresh or canned, dried fish, dried meat, poultry, cheese, eggs, milk, yogurt, protein shakes, tofu, chick peas

Can I Shower or Bath?

- Bathing is not usually permitted when you have a wound because it is not good for the wound to soak in your bath water. You may need to have a “sink bath” while your wound is healing,
- There are two kinds of dressings – some dressings must be protected from water and some dressings are waterproof. Be sure to check with your nurse or doctor about what kind of dressing you have,
- If your nurse or doctors says it is ok, you can take the dressing off and shower,

- If you are permitted to shower, use a handheld shower, if you have one. Gently spray water from the top to the bottom of the wound allowing clean water to run over it,
- Do not use soap, shower gel, body lotion, talcum powder or other bathing products directly on your healing wound and do not rub the area as this might be painful and could delay healing,
- Swimming is usually not allowed with dressings, however if you have a waterproof dressing it may be ok. Again, check in with your nurse or doctor.

Why should I Stop Smoking or Vaping when I have a Wound?

Wounds must have oxygen to heal. We get oxygen when we breathe air in. If we have heart or lung disease the oxygen we breathe in cannot get to the wound. Smoking tobacco in any form can prevent your wounds from getting the oxygen they need. This is especially true if your wound is on your leg or foot or you have diabetes or heart disease.

It is estimated that one cigarette decreases the amount of oxygen in your blood for 1 hour. If you smoke a cigarette every waking hour, then all day you have reduced oxygen just from smoking.

We know that asking you to stop smoking is a really big deal. If you think you can or if you want help, check out the following resource:

Government of Ontario Support to Quit Smoking
<https://www.ontario.ca/page/support-quit-smoking>



If you can't quit, then consider trying to reduce the number of tobacco products you use in a day or maybe limit the time of day you smoke to after supper. Any tricks you can use to lower the amount you smoke will make a difference.

E-cigarettes and vaping (including marijuana) also have an impact on wound healing because they contain many of the same chemicals that are in cigarettes. Consider trying to reduce your use of e-cigarettes or vaping whenever possible.



Second hand smoke (the smoke from someone else smoking) can contain as many harmful ingredients as smoking and will affect your healing. If someone in your house smokes, ask them to try to go outside away from open windows. If they smoke in the garage, use a fan to blow smoke toward the outside.

Second hand smoke is unhealthy for the nurses caring for your wound too. Never smoke when your nurse is in your home.

How can I Avoid Trauma to my Wound?

Trauma can be anything that causes harm or injury to the area of the wound. Try to avoid:

- Tight fitting shoes,
- Bumping your leg on furniture or car doors,
- Pets and kids bumping you or jumping on you and hitting your wound.

Wounds can be easily damaged. Take care of your wound by protecting it from trauma.

How to Change my Dressing



You may be asked to pick up or purchase some items for the nurse to use when doing your wound care and to keep these items clean. Our nurse will provide you with sterile instruments. This may include forceps, scissors and a probe. Be sure that you or your nurse only use these instruments for your dressings.

Your nurse will show you how to change your dressing and tell you how long to keep the dressing on between dressing changes. They will recommend specific products.

Talk to your nurse about showering or bathing in between removing the old dressing and applying the new one; your nurse and doctor will help you decide if this is safe for you and your wound.

6 Steps to Change Your Dressing

1. Prepare the area where you will do the dressing change
2. Gather your supplies
3. Remove the old dressing
4. Cleanse the wound
5. Apply the new dressing
6. Cleanse your equipment

Prepare the area

You will need a clean spot to do your care with good lighting. Remove kids and pets from the area.

Check off the supplies you need

- Alcohol based hand rub for your hands
- Adhesive remover
- Gauze pads
- Sterile normal saline
- No sting barrier film nor skin prep
- Tape
- Plastic sealable trash bag
- Clean towel to absorb spills
- Forceps and scissors if needed
- Dressings

Remove the Old Dressing

1. Clean your hands with soap & water or an alcohol-based hand rub.
2. Slowly lift the corners or edge of dressings, if it is sticky use the adhesive remover to loosen.
3. Hold down the skin and pull tape across the skin rather than pulling. If you have an adhesive dressing, anchor the dressing with one hand and stretch it away from the wound to loosen it. Do not tear your skin.
4. Throw away the used dressings in plastic bag.

5. Clean your hands again.

Clean the Wound

6. Place a towel under the wound.
7. Cleanse the wound with the saline the way your nurse showed you.
8. Use gauze to blot the surrounding skin around the wound.
9. Discard used gauze into the plastic bag.
10. Check the wound for redness, drainage, swelling or odour.

Apply New Dressing

11. Open new dressing & remove from the package. Only touch the corners.
12. Apply skin barrier or skin prep to the skin around the wound.
13. Center dressing over wound.
14. Secure with tape or, if the dressing is adhesive, smooth out the adhesive borders.
15. Discard packaging into plastic bag and seal the bag.
16. Clean your hands.
17. Put the plastic garbage bag in a larger garbage bag for disposal with your regular household garbage.

How to Clean my Equipment

Each time after wound care is completed, follow these directions to clean the instruments:

1. Fill a clean bowl with warm water and add dish soap,
2. Wash each instrument in the warm water removing anything visible,
3. Rinse the instruments under the tap with warm running water,
4. Lay instruments on a clean towel or paper towel and air dry them,
5. Once the instruments are completely dry, put them in a clean, plastic container with a lid or a clean, sealable plastic bag,
6. Close the lid of the container or seal the bag,
7. When it is time to do your wound care, remove the instruments from the container or bag and complete your wound care,
8. Repeat the cleaning procedure each time wound care is completed,
9. Once the wound is closed and no more wound care is required, safely dispose of the instruments.

When to Call my Nurse

Call your nurse if any of the following occur:

1. Increased pain at wound site or in your leg,
2. Redness or swelling around the wound or spreading out,
3. Warmth around the wound site,
4. Foul odor from wound after you have cleaned it,
5. Change in colour or amount of drainage,
6. A dry toe becomes wet or boggy,
7. Fever chills or nausea.

I am Ready for Discharge. What do I Need to Know?

You and your nurse have agreed that it is time to discharge you from the home care program because your wound is closed or because you now have all the skill you need to look after it yourself.

There is still a lot going on under the surface of your wound. It can take up to 2 years for your wounded area to get back its strength. Even then it won't be as strong as it was before your injury because the new tissue is scar tissue and doesn't have all the characteristics of uninjured skin.

Always protect the area from pressure, trauma and other forms of injury.

If you have stopped or reduced smoking keep doing it!!!

Glossary of Terms

Antimicrobial dressings: are used to reduce the number of micro-organisms in the wound which reduces the risk of infection.

Autolytic debridement: uses the body's own enzymes and moisture to re-hydrate, soften and finally liquefy hard eschar (scab) and slough (wet dead tissue) in the wound. Only dead tissue is liquefied. It is virtually painless for the patient.

Conservative sharps debridement: conservative sharp wound debridement (CSWD) is the removal of loose avascular tissue without pain or bleeding.

Deep tissue infection: infection in a wound that has reached the deeper layers of the body. A deep infection means that the whole body is infected, not just the wound and oral or IV antibiotics are needed for healing.

Germs: microorganism, especially one that causes disease.

Hand hygiene: cleaning hands to remove soil, dirt, and germs. If water and soap are not available, hands can be cleaned with alcohol based hand rub.

Healable wound: a wound that is ready to heal and all the patient factors make it able to heal; these factors include circulation, diet, devices etc.

Maintenance wound: a wound where healing has stalled due to factors that need to be corrected such as blood sugars in the person with diabetes or the purchase of specific equipment or perhaps remedial surgery.

Non-healable wound: a wound that cannot heal due to factors that cannot be corrected such as poor circulation.

Superficial infection: A wound infection that is localized to just the wound. The body is not infected and the patient does not need systemic antibiotics to heal.

Swab: a test that the nurse can perform by touching a special cotton tip applicator to a cleaned wound and then sending the applicator to a laboratory to see what microorganisms grow. The results from a swab tell the doctor what kinds microorganisms are growing on the wound and what antibiotics might work to treat infection.