All you need to know about Arterial leg ulceration

What is an arterial leg ulcer?

This is an area of damaged skin that usually occurs below the knee.

What causes an arterial leg ulcer?

Arterial leg ulcers may be caused by poor blood supply due to narrowed or damaged arteries. (This is the part of the body that carries the blood away from the heart)

What is the function of arteries?

Blood is transported throughout the body by the arteries and veins.

In order to function properly the body needs to be supplied with oxygen and nutritious food and this is done by the arteries. The heart pumps blood into arteries at high pressure so these vessels are strong, elastic and muscular. They deliver the food they carry into very fine blood vessels called capillaries and then into cells to feed the body. A good blood supply through the arteries is therefore essential to keep the skin & muscles of the legs healthy. With good arterial blood circulation and health the colour of your legs should appear as the rest of your body. They should feel warm to touch & the skin intact. It should not be painful to walk.

What happens if arteries don’t function properly?

With poor arterial blood circulation the skin & muscles are starved of oxygen and food. This prevents them from functioning in the normal way. Poor arterial circulation can be caused when arteries become thickened. This reduces their ability to transport blood efficiently.

This is known as arteriosclerosis.
What are the symptoms of arteriosclerosis?

- Legs may appear pale & dusky or deep red.
- They may feel cold & be very painful. The skin on your leg may be shiny & your toe nails may be thickened.
- A cramp like pain may be experienced when walking & stops when you rest. This is known as intermittent claudication.

Intermittent claudication (pain when walking)

When walking the muscles in the legs need more oxygen to work well. In narrowed or blocked arteries blood cannot flow properly to deliver oxygen & muscles are starved. A build up of acid occurs which results in pain.

Pain at rest

Pain may also be experienced when resting, especially at night. This is because when legs are elevated the blood supply to the feet is reduced. Pain may be eased when the legs are lowered such as when you sit or stand.

How does an arterial leg ulcer occur?

If you suffer with arteriosclerosis & you knock or injure your leg healing will be delayed due to the poor blood supply. This is known as an arterial leg ulcer.

How does arteriosclerosis occur?

There are conditions & habits that may contribute to the development of arteriosclerosis.

- Smoking.
- Eating a high fat/cholesterol diet.
- High blood pressure.
- Obesity (Overweight)
- Diabetes.
- Rheumatoid arthritis
- A history of heart disease
- Not taking much exercise
How to care for your arterial leg ulcer.

The treatment of your arterial leg ulcer may require you to take medication or consider surgery. Your doctor & nurse will be able to discuss the best treatment options. To help heal your ulcer you can help yourself.

Things to do

- **If you smoke** try to cut down or stop altogether. Smoking dramatically increases the narrowing of your arteries & reduces the amount of oxygen in your blood. If you stop smoking the damage to your arteries will be reduced & any pain you are experiencing will also reduce. Ask your GP or nurse for information on how to stop. There are also support groups that can help.
- **Eat a healthy diet.** Try to cut down on fatty foods & eat more fruit & vegetables. Eat a healthy balanced diet to encourage your ulcer to heal. If you are over weight you maybe advised to try and diet. Your nurse may offer advice or you maybe referred to a dietician.

Ideally you should include in your diet sources of:

- **Vitamin C:** examples of these are potatoes, leafy vegetables, and fresh fruit.
- **Calcium and Vitamin D.** These help to keep bones strong. Protein is necessary for growth and repair. Sources of these are found in milk, cheese, yoghurt, oily fish, margarine, meat, fish, lentils bread and eggs.
- **Iron** is needed to make blood cells. Good sources of these are found in liver, kidneys, red meats, dried fruits, tinned fish, baked beans, peas, lentils, and leafy green vegetables.

Remember that you do not have to buy expensive exotic foods to be healthy.

**Pain Control**

- **If you are experiencing pain** you will be prescribed pain killers. You should take these according to the instructions. You will need to be pain free to be able to exercise. By exercising regularly you will increase the formation of new blood vessels & greatly increase your circulation.

Discuss your exercise regime with your nurse or GP - Do not undertake exercise until you have discussed this with your GP or nurse.

- Support yourself with a chair, rise up & down on your toes. Repeat this up to 10 times.
• Bend your knees – support yourself with a chair & bend gently up & down. Repeat this up to 10 times.
• Exercise your feet. Rotate your ankle in a circular motion then up & down.

Do this on both feet.

Remember that a little exercise is better than none! If you experience pain then discontinue the exercise and talk to your nurse.

• Skin care: if you have dry skin apply a bland ointment or cream (one that does not contain preservatives as this could lead to allergic reactions). Apply this in a downward motion to prevent blockage to hair follicles.
• Wear comfortable shoes & take care not to bang or knock your feet & legs, being alert for sharp objects & table corners.
• Look at your legs & feet regularly checking for new sores or changes in colour. If you are unable to do so ask a friend or use a mirror.

**Things you should not do**

• You should avoid extremes of temperature as damage can occur to tender skin. Be careful with hot water bottles, hot baths & never sit too close to a fire.

• Do not remove your bandage unless the bandage feels too tight or restrictive. If you have a problem with them contact your nurse.

• Do not stand or sit in one position for a long time.

• Do not cross your legs as this reduces blood flow.

• Do not scratch as this may damage the skin & lead to an infection.

Even after your leg ulcer has healed you are advised to follow these ‘do’s & ‘don’ts’.
Useful Information
www.nhs.uk/Conditions/Leg-ulcer-venous/Pages/Introduction
www.circulationfoundation.org.uk/help-advice/veins/leg-ulcers