

Intermittent claudication and exercise



Introduction:

This information leaflet has been written to provide you with information surrounding your diagnosis of intermittent claudication and to give you advice on how to improve and monitor your claudication symptoms

What is intermittent claudication?

Intermittent claudication is caused by narrowing/s or blockage/s in the main blood vessel taking blood to your leg. This is due to hardening of the arteries (atherosclerosis). The blockage means that blood flow in the leg is reduced. Blood circulation is usually sufficient when resting, but when you start walking the calf muscles cannot obtain enough blood. This causes cramp and pain which gets better after resting for a few minutes. If greater demands are made on the muscles, such as walking uphill, the pain comes on more quickly.

Claudication usually occurs in people aged over fifty years, however it can occur much earlier in people who smoke and/or are overweight and those who have diabetes, high blood pressure, or high levels of cholesterol in the blood.

Unfortunately, the blockage which causes the claudication will not clear itself, but the situation can improve. Smaller arteries in the leg may enlarge to carry blood around the blockage in the main artery, this is called collateral circulation. Many people notice some improvement in their pain as the collateral circulation develops. This normally happens within six to eight weeks of the start of the claudication exercises.

Intermittent claudication is a common condition, thought to affect at least four million people in Europe. Claudication is not usually limb threatening and it is not necessary to treat with an operation if the symptoms are mild. Claudication often remains stable, with no deterioration in walking distance over long periods. Less than one in ten patients will notice any reduction in walking distance during their lifetime. However if your symptoms worsen then general measures to improve walking distance include stopping smoking, taking more exercise, and making sure you are not overweight. Blood tests to rule out other causes of hardening of the arteries are often done. These will include a blood sugar test to exclude diabetes and a cholesterol test.

If there is thought to be any risk to the limb a vascular surgeon will always act to save the leg if at all possible. You can minimise the risk of progression of your symptoms by following the advice below. It is the simple measures that are most effective. The vast majority of patients do not need x-ray or surgical procedures to treat their symptoms.

If you are a smoker, you should make a determined effort to give up completely. Tobacco is particularly harmful to claudicants for two reasons:

- Smoking speeds up the hardening of the arteries, which is the cause of the trouble.
- Cigarette smoke prevents development of the collateral vessels which get blood past the blockage.

The best way to give up is to choose a day when you are going to stop completely, rather than trying to cut down gradually. If you do have trouble giving up, please ask your doctor who can give you advice on additional help, or put you in touch with a support group.

Your local stop smoking advice helpline is;

Live Well Dorset

Freephone: **0800 8401628**

Or visit **livewelldorset.co.uk**

It is also important to maintain a healthy weight - please speak to your doctor or nurse practitioner for advice surrounding this.

How can exercise help?

Undertaking regular specific exercise has been shown in trials to more than double the walking distance of patients. By exercising 4-7 times per week you can increase blood flow by supporting the growth of smaller blood vessels that feed the leg muscles and in turn reduce your leg pain and increase your walking distance.

We recommend specific exercise in addition to your normal walking.

While you walk it is normal to feel:

- warm and a little sweaty
- slightly short of breath but able to continue normal conversation
- your heart beating a little faster than usual but not racing

It may help you to:

- wear comfortable clothing
- allow an hour after eating before exercise
- drink some water before and after your exercise session
- warm up and cool down after exercise
- pick a route that is flat and easy to stop and rest if necessary
- make a note of how long and how far you walk. You may wish to use a pedometer or an app on your mobile phone for this.

When shouldn't I exercise?

When you have:

- a heavy cold, high temperature, are very tired, or feeling generally unwell
- any injury to muscles or joints
- an acute episode of arthritis
- pain in ankles/knees/hips
- new or increased episodes of chest pain, dizziness, palpitations, or breathlessness
- a change in balance

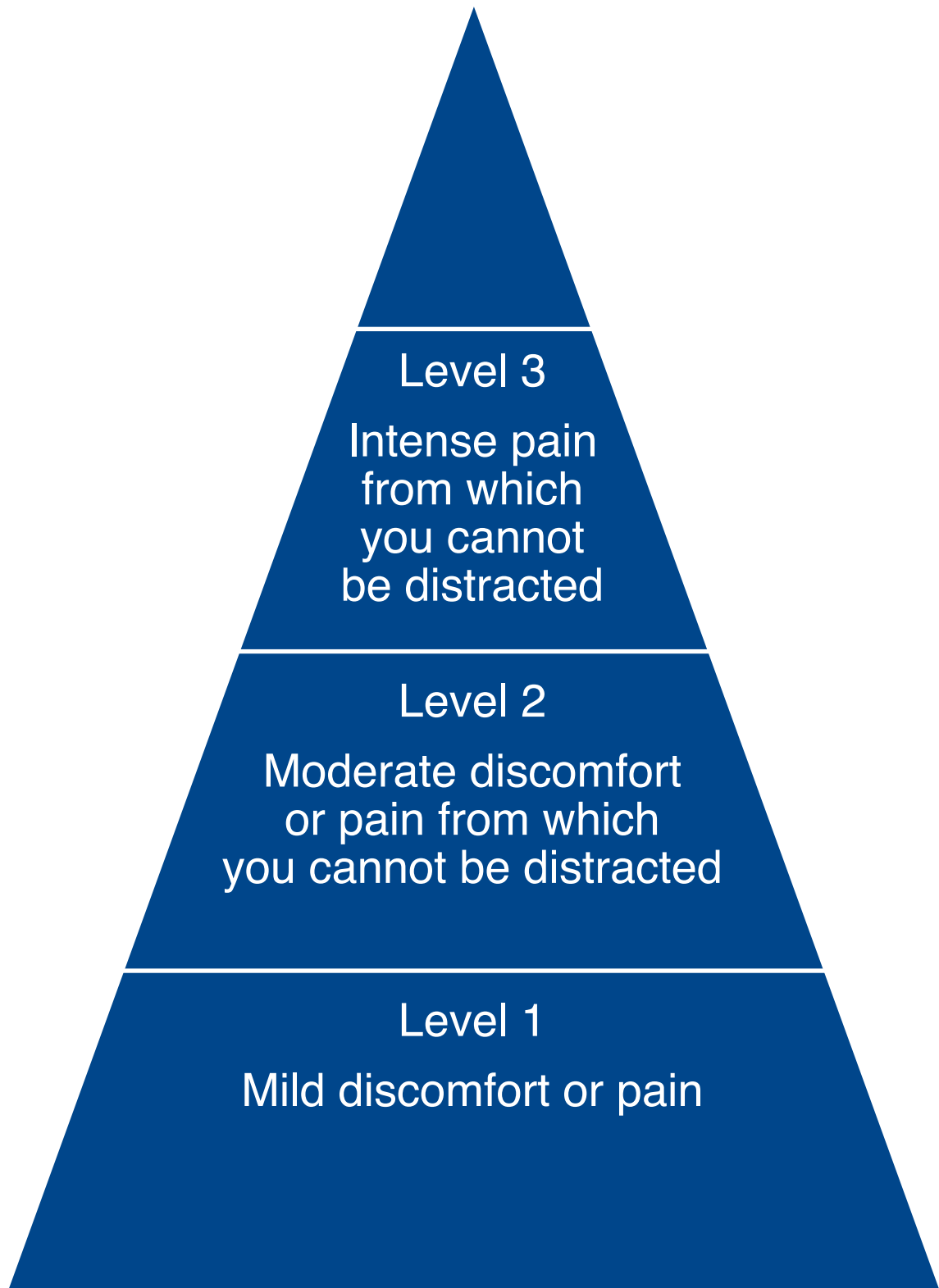
What are the benefits of exercise?

- Increase in blood flow
- Improvement in general fitness
- Reduction in the need for surgical intervention
- Reduction of pain on walking
- Weight loss

Walking is the best form of exercise, but the exercises below are specifically designed to improve the circulation in your legs.

To gain benefit from your claudication exercise regime, you should walk or exercise to **level three** of the claudication pain scale and then rest before the pain has completely gone until you resume your next activity. Do the exercises in any order you wish, at any time of the day.

Claudication Pain scale



You should not need to purchase any special equipment, just ensure you are wearing loose, comfortable fitting clothes, with flat supportive shoes.

If at any time you feel any of these symptoms, stop and seek emergency help if necessary and speak to a healthcare practitioner before restarting your exercises.

Heel raises



Hold onto a stable surface and raise your heels off from the floor and hold for 5-10 seconds in order to stretch your calf muscles. Repeat until you reach level 3 on the claudication pain scale.

Leg raises



Choose a straight backed chair. Make sure your bottom is well back into the back of the chair so that your lower back is well supported with your feet on the ground.

Raise one leg off of the ground keeping it as straight as you can, tightening your thigh muscle and straightening your knee, pointing your toes towards the ceiling, you can feel your calf muscle pulling. Hold this for at least 5-10 seconds then put your foot back down to the floor.

Repeat this until you reach level 3 on the claudication pain scale and then repeat with the other leg.

Step ups



Stand in front of a 20-40 cm high step. Step up with one leg leading and then down. Continue until you reach level 3 on the pain scale.

Toe walking

Choose an area such as a hall or living room and walk on your toes, do not put your heels down unless necessary. Walk to the end of the area you have chosen, turn (while remaining on your toes) and walk back. Repeat until you reach level 3 on the claudication pain scale and stop and rest.

Following walking/exercising please ensure you cool down, you can do this with gentle walking for a few minutes or by sitting in a chair and tapping your toes and gently circling your ankles.

You can access exercises for claudication by visiting these YouTube videos:

Copy and paste into your browser:

www.youtube.com/watch?v=F3wGuzFKSWk

And

www.youtube.com/watch?v=gD5g7vAyEiU

Please follow these exercises accurately within the booklet and seek advice from your GP or your claudication team if you have any concerns or questions.

We will usually invite you to attend our evidence based claudication programme or offer to refer you to your local gym participating in the referral for health scheme.

The claudication team at University Hospital Dorset are here to help you so, if you have any non-urgent questions please contact us via the vascular secretaries on **0300 019 4601** and leave a message.

Please see the circulation foundation website for any further information

www.circulationfoundation.co.uk

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