



Intermittent Claudication Patient Information

What is Intermittent Claudication?

Intermittent claudication is a muscle pain in the form of tightness, or cramp that can affect the calf, thigh, or buttocks. This pain occurs when you are actively walking. This pain disappears with rest. If greater demands are made on the muscles, like walking uphill, the pain comes on more quickly.

Exercise can help improve how far you can walk and the medication can minimise the risk of developing heart attacks and stroke.

Causes

Claudication is most often a symptom of peripheral artery disease. The peripheral arteries are the large vessels that deliver blood to the network of vessels in your legs which in turn deliver the oxygen and nutrition to the muscles and other tissues in the leg. Peripheral artery disease means narrowing or blockage in an artery that restricts the blood flow in the leg. When you're at rest, the limited blood flow is generally still enough. When you're active, however, the muscles aren't getting enough oxygen and nutrients to work well and remain healthy.

Peripheral artery disease is usually caused by damage initiated by a process called atherosclerosis. This is the build-up of cholesterol and other fats, blood cells, and other cellular debris into abnormal structures (plaques) on the lining of an artery. Plaques cause narrowing and stiffening of the artery, limiting the flow of blood. If the plaques rupture, a blood clot can form further reducing blood flow.

Risk factors

The risk factors for peripheral artery disease and claudication include the following:

- Smoking
- High cholesterol
- High blood pressure
- Obesity (a body mass index or BMI of over 30).
- Diabetes
- Chronic kidney disease
- If you are aged 50 years or older
- If you are aged younger than 50 years and also smoke or have diabetes.
- A family history of atherosclerosis, peripheral artery disease or claudication.

Prevention

The best way to prevent claudication is to maintain a healthy lifestyle and control certain medical conditions. That means:

- Stop smoking
- Set up and establish a regular exercise routine like regular walking exercise
- Eat a healthy, well-balanced diet
- Maintain a healthy weight
- If you have diabetes, keep your blood sugar in good control
- Keep cholesterol and blood pressure within normal values

Treatment

Claudication is not usually limb threatening and it is not necessary to treat it if the symptoms are mild. Claudication often remains stable, with no deterioration in walking distance over long periods. However, if your symptoms worsen, there are treatments available which you can discuss with your vascular surgeon.

Best medical treatment includes:

Antiplatelet drugs - there is clear evidence that antiplatelet drugs reduce major cardiovascular events like heart attack and stroke. They prevent abnormal clotting in the arteries.

Statins - cholesterol medication can help lower the 'bad cholesterol' in the blood. There is also evidence that statins improve the symptoms of claudication, increasing walking distance and pain-free walking time.

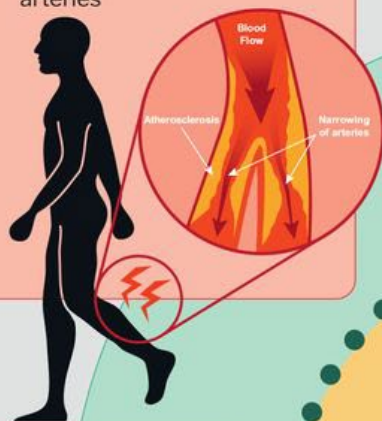
Exercise - regular exercise, at least three times weekly, has been shown to improve total walking distance and exercise time. Although walking can be frustrating because of the frequent stops when the legs are painful, it is important to persist and try to walk each day, increasing the distance as the legs improve. In addition, the blood flow in the legs will increase as smaller arteries increase in size.

Stop smoking – quitting smoking provides better mental health and physical health reducing the risks of cancer, lung disease, peripheral arterial disease, heart disease and stroke.

Exercise for Intermittent Claudication

What is intermittent claudication?

- Leg muscle pain or discomfort during walking
- Usually caused by narrowed arteries



NICE National Institute for Health and Care Excellence

RECOMMENDS EXERCISE

Supervised exercise classes produce the greatest benefits - ask your doctor or specialist if these are available locally

Benefits of exercise



Reduces pain



Reduces the need for vascular procedures



Improves heart and vascular health



Improves mood



Improves sleep



Maintains healthy weight

Walk at a speed that you can maintain for 3-10 minutes

to reduce pain and improve fitness

Walk regularly for exercise

some is good, more is better, make it a habit

Key recommendations

- Aim to complete 30-60 minutes of walking per session
- Follow the walk-rest-walk pattern (central diagram)
- 3-5 sessions per week

Rest until the pain subsides then walk again

Continue until moderate-to-strong leg pain develops

Further guidance

- Do not fear walking with leg pain – it will not harm you
- Build up gradually – your walking speed and time
- Be patient – it usually takes several weeks of exercise to improve symptoms

General tips

- Wear comfortable clothing, keep hydrated
- Choose routes with resting places
- Build in variety, involve others, keep it fun
- Do not exercise if you are unwell
- Seek medical advice if you experience chest pain, dizziness or sickness

Do strengthening and balance activities as well



... on at least 2 days per week

... to stay strong and reduce the risk of falling

Where can I find out more information about this condition?

The Circulation Foundation: www.circulationfoundation.org.uk

Source:

Based on the BASES Expert Statement by Tew, Harwood, Ingle, et al. in The Sport and Exercise Scientist, Issue 57 (Autumn 2018), https://www.bases.org.uk/imgs/autumn_2018_7601_bas_expert_statement_v2_569.pdf

Disclaimer:

This infographic is not a validated clinical decision aid. Any reliance placed on this information is strictly at the user's own risk.

Thanks:

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Information for Patients

Useful Contact Numbers:

Vascular Secretaries 0121 371 5517
0121 424 3423

Additional Sources of Information:

British Heart Foundation www.bhf.org.uk Search for Cardiac Rehabilitation Videos

Circulation Foundation www.circulationfoundation.org.uk

NICE guidelines on Peripheral Arterial Disease www.nice.org.uk/guidance/cg147

www.vascularsociety.org.uk

[Quit smoking - Better Health - NHS \(www.nhs.uk\)](http://www.nhs.uk)

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