Intermittent Claudication

What is Intermittent Claudication?

The pain you can feel in your legs is known as intermittent claudication. This is caused by a narrowing in the main artery supplying the blood to your legs. This is due to hardening of the arteries or ‘atherosclerosis.’ Over the years there is a build up of cholesterol and calcium in the arteries. As this builds up it restricts the blood flow as the artery is narrowed. In smokers and diabetics this is accelerated and can occur much earlier in life. It can also happen earlier for those with high blood pressure, high cholesterol or a diet high in saturated fat.

The blockage/narrowing means the blood flow in your leg is reduced. The circulation is enough when resting but when you start to walk the muscles cannot get enough blood. This causes cramp and pain in either the calf muscles or in your thigh muscles and buttocks, depending where the narrowing in the artery is. When you rest the blood flow becomes enough and the pain goes away. If greater demands are made on the muscles such as walking uphill the pain comes on quicker.

Does the blockage ever clear itself?

Unfortunately not. However things can improve. The smaller arteries (the collateral circulation) can enlarge to carry blood and the muscles may adapt to the new circulation. Some people may notice an improvement six to eight weeks after the symptoms start.

How is claudication detected?

A blockage can be detected by feeling for pulses in the leg. If there is a blockage then there will be a loss of one or more pulses.

Using an ultrasound device (a hand held Doppler) the blood pressure in the arms and legs can be compared. This measurement is called the ABPI (ankle brachial pressure index) and provides an objective measurement of the lower limb circulation.

A duplex (ultrasound) may be carried out. This tells us the size of your vessels. It gives us a good indication of who will be suitable for further intervention and what type of intervention may be required.
A magnetic resonance angiography (MRA) may be done to help further examine the blood supply to your legs and arms. This is done as an MRI scan.

An angiography may be done. This is an X ray of the arteries performed by injecting contrast in at the groin. This is rarely done now as MRA or a CT scan can give good pictures and is less invasive.

**What can I do to help to myself?**

Stop smoking. Some studies have shown stopping smoking to be more effective then angioplasty (balloon dilation). Stopping smoking is the most important thing you can do for two reasons. Firstly, smoking speeds up the process of hardening of the arteries. Secondly smoking prevents development of the collateral blood vessels which get blood past the blockage. You must stop completely rather then cut down. There are nicotine replacement therapies available to you and there is help and support available. Please ask for it.

If you are overweight then try to lose weight as this can also help you. The more weight your legs have to carry the more blood they need. Also, if further surgical intervention is required then you are more at risk of complications if you are overweight.

Exercise is also effective in increasing your walking distances and helping the circulation. Take a brisk 30 minute walk three times a week. If the pain becomes too much, stop, then carry on when it goes. Each time try to increase the distance you walk without stopping. This will noticeably increase your walking distance over three to six months. This provides a long term solution for the majority of people and more importantly it is safe.

**Will I need surgery?**

It is not necessary to treat claudication surgically if the symptoms are mild. It is not limb or life threatening.

Use it as a warning signal to control risk factors that mean you are more prone to a heart attack or stroke. Your blood pressure, cholesterol, weight, diabetes and smoking habits all need good control.

Claudication often remains stable with no deterioration noted in walking distances or pain. Less then two people out of every ten with intermittent claudication will notice a reduction in their walking distance in their lifetime. However if a deterioration is noted then there are treatments available

**What treatments are available?**

As already mentioned there are things you can do for yourself which will improve things
There are some drugs on the market which claim to improve walking distance and these may be prescribed for you by your GP or surgeon.

There is evidence that taking an aspirin a day, or an alternative if you have history of ulcers, is good for people with circulation problems.

There is evidence that even if you have normal cholesterol there is a benefit from taking a statin, usually used to reduce cholesterol. So this may be prescribed even if your cholesterol is normal.

An angioplasty is where the artery is stretched where it has narrowed and is carried out in a similar way to an angiogram. It may help to increase walking distance in some people but overall exercise therapy can be just as effective. Angioplasty is limited to narrowing or short complete blockages.

Bypass surgery is usually saved for long blockages where the symptoms are much worse. Surgery is not always successful and comes with a risk so should only be carried out if the claudication is truly disabling and the limb is perceived to be threatened, for example, pain at rest, ulcers on the feet or even gangrene of the foot or toes. Half of bypass surgery needs some kind of maintenance procedure at some point in the future. This may be further surgery or may be an x-ray procedure.

**What is the risk of losing my leg?**

Very few people with claudication will ever be at risk of losing their leg. However it is your job to look after your health and prevent this outcome. If you follow the advice in this leaflet you are helping to minimise the progression of symptoms. If there is ever thought to be any risk to your limb your surgeon will always act to save your leg where possible. It is the simple measures which are the most effective and the vast majority of people with claudication should not need further intervention.