DO YOU GET A cramp-like pain in your leg when you walk that goes away when you rest?

This is one of a series of leaflets based on recent research evidence and guidelines. It aims to help you with decisions about your health care.
Who is this leaflet for?
This leaflet is for people who get a cramp-like leg pain when they walk which goes away when they rest. This problem is known as ‘intermittent claudication’.

The leaflet explains:
• what causes ‘intermittent claudication’;
• what you can do about ‘intermittent claudication’;
  and
• what you can do to help prevent related health problems from developing or getting worse.
What is ‘intermittent claudication’?
‘Intermittent claudication’ is a cramp-like pain that some people get in the calf muscle in one or both legs when they walk or take exercise. This pain goes away when they rest. The pain can also happen in the thigh muscles or buttocks. Some people may only get this pain when they walk uphill. Others will get pain when they walk just a short distance on flat ground.

This problem happens when there is not enough blood getting to the leg muscles. The blood carries oxygen that the muscles need to work. If the muscles do not get enough oxygen, they will start to feel painful. Your muscles need more oxygen when you are walking or exercising. If you stop walking or exercising, the muscles will need less oxygen again and the pain will wear off.

If you get this type of pain, you should go and see your GP.

What causes ‘intermittent claudication’?
‘Intermittent claudication’ is a sign that the arteries that carry blood to the legs are getting narrower. The arteries get narrower because there is a build-up of fatty deposits inside the walls of the arteries. The fatty deposits make it more difficult for the blood to flow to the muscles. This condition is called ‘atherosclerosis’ or ‘hardening of the arteries’.
Who usually gets ‘intermittent claudication’?
Some people are more likely to get this type of pain than others. Because the build-up of fatty deposits on the inside walls of the arteries can take many years to happen, it is more common in people aged 50 and over. At present it is more common in men than in women.

You are also more likely to get ‘intermittent claudication’ if:
• you smoke;
• you have a high level of certain fats in your blood (for example, cholesterol or triglyceride);
• you have high blood pressure;
• you have diabetes; or
• you have a family history of heart or blood-vessel disease such as peripheral arterial disease.

The more of these risk factors you have, the more likely you are to get ‘intermittent claudication’.
Why should I be concerned about ‘intermittent claudication’?
If you don’t do anything about ‘intermittent claudication’, the arteries that carry blood to your legs will continue to get narrower. The pain on walking or exercising may get worse. You may start to get pain in your toes when you are not moving. If this happens, you may need to have surgery to help improve the blood flow to your legs.

Important
If your leg suddenly becomes cold and painful when you are not moving, you should go and see a doctor straight away. This can be a sign that a blood clot has formed and blocked a very narrowed artery. If you do not get treatment, and the blood supply to part of your leg remains blocked, you might develop gangrene. If this happens, you might have to have part or all of your leg amputated.

If you have problems with the arteries that carry blood to your legs, you are more likely to have or develop the same problem with other arteries. If the arteries that carry blood to your heart or your brain are too narrow, you are more at risk of having a heart attack or stroke.

This leaflet tells you what you can do to help yourself avoid these problems.
What will happen when I see my GP?
If your GP thinks you might have ‘intermittent claudication’, he or she will usually ask you to describe:
- the type of pain you get;
- where in your legs you get this pain; and
- when you get this pain.

Your GP may also examine the pulses in your legs to check how well the blood is flowing in the arteries in your legs.

You and your GP can then discuss what you can do to:
- help reduce the pain you get in your legs and improve your quality of life;
- slow down the damage to your arteries; and
- reduce your risk of having a heart attack or stroke.

What can I do about ‘intermittent claudication’?
There are several things you can do to reduce the pain you get in your legs and improve your quality of life.

- If you smoke, stop
The chemicals in cigarettes reduce the oxygen in the blood and make your arteries narrower. If you stop smoking, more oxygen should be able to get to your muscles and you should get less pain in your legs.

You and your GP or nurse can discuss what help you can get to stop smoking.
• **Keep walking**

Exercise increases the amount of blood that the arteries can carry to the muscles in your legs. Research shows that regular exercise such as walking can help reduce the pain of ‘intermittent claudication’. It also helps people to walk longer distances before they get pain. However, nobody can say for sure how much better you will feel and how much more you will be able to do if you exercise regularly.

You and your GP or nurse can discuss how far and how often you should walk. This may depend on how far you can walk now before getting leg pain. They will usually advise you to:

- walk as far as you can until the pain forces you to stop;
- try and do this every day; and
- try to increase the distance you walk every day.

Your GP or nurse can also discuss other kinds of exercise that might suit you.

• **Drug therapy**

At present there is no drug that you can take that will cure the pain of ‘intermittent claudication’. The best ways to reduce the pain are to stop smoking and keep walking. There are several drugs that doctors in the UK are allowed to give people for ‘intermittent claudication’. Guidelines for doctors based on the research carried out on these drugs to date suggest that the drugs are not very helpful.
However, new drugs are being developed and tested. If research shows these new drugs are helpful, they may become available in the future.

Some drugs for high blood pressure might make ‘intermittent claudication’ worse. If you are taking beta-blockers for high blood pressure, you can ask your GP if another drug would suit you better.

• Complementary therapies
Some people think that taking food supplements or complementary medicines might be helpful. Some research has looked at the effects of vitamin E, ginkgo biloba and garlic supplements on ‘intermittent claudication’.

The research done so far cannot say for sure how useful these therapies are. However, it suggests that:
• vitamin E may have some benefits;
• ginkgo biloba might help people walk longer distances before they get pain but it can have side effects; and
• more research is needed to study the effects of garlic supplements.
What can I do to look after my arteries?
As well as reducing the pain of ‘intermittent claudication’, stopping smoking and taking regular exercise such as walking can also help prevent other health problems.

• If you smoke, stop
Stopping smoking is the most important thing you can do to slow down the damage to your arteries. Research has clearly shown that if you stop smoking, you reduce your risk of having a heart attack or stroke.

• Keep walking
Walking regularly or taking other forms of exercise increases the amount of blood that the arteries can carry to different parts of the body. This reduces your risk of having a heart attack or stroke.

Other things you can do to help look after your arteries include the following.

• Eat a healthy diet
A healthy diet can slow down the damage to your arteries. Your GP or nurse can give you more information about ‘healthy eating’. If you are overweight or have high blood pressure or high levels of certain fats in your blood, you can ask for special advice on what to eat to help with these problems.
• **Control your blood pressure**
  High blood pressure damages the inside walls of the arteries. It increases the build-up of fatty substances inside the walls of the arteries. If you can keep your blood pressure under control, it will help slow down the damage to the arteries. This will lower your chances of having a heart attack or stroke.

If you are taking drugs for your blood pressure, it is important that you remember to take them regularly. You should also try to have your blood pressure checked every six months.

• **Control the levels of fat in your blood**
  If you have very high levels of certain fats such as cholesterol or triglyceride in your blood, your doctor might advise you to take a drug to help you reduce these.

• **Take aspirin**
  If you have ‘intermittent claudication’ you might benefit from a low dose of aspirin every day (75 milligrams). The aspirin makes your blood less likely to clot. Research has shown that people who are at high risk of having a heart attack or stroke can reduce the risk by taking aspirin.

If you are allergic to aspirin or have a stomach ulcer, your doctor can give you advice about drugs that might suit you better than aspirin.
• **Do you have diabetes?**

People with diabetes are more likely to have problems with their arteries. If you have diabetes, it is important to keep your blood glucose levels as near normal as possible. This will help slow down the damage to the arteries.

**What if my ‘intermittent claudication’ gets worse?**

For some people the pain on walking becomes worse and may happen even after walking very short distances. If your condition gets worse, surgery may help improve the blood flow in your legs.

You and your GP or surgeon can discuss which type of operation would suit you best. If the arteries in your legs are not completely blocked, you might need a simple operation to widen them. This is called an angioplasty. If the arteries in your legs are completely blocked, you might need an operation to replace the arteries. This is called bypass surgery.
Where can I get more information?
The following organisations can give you more information about diseases of the arteries, how they can be prevented and how they can be treated.

**Chest Heart and Stroke Scotland**
http://www.chss.org.uk
Helpline phone: 0845 077 6000
(Monday to Friday 9.30am to 4.30pm)

**British Heart Foundation**
http://www.bhf.org.uk
Phone: 0131 226 3705 (Scottish office)

**Scottish Heart and Arterial Risk Prevention (SHARP)**
Phone: 01382 660111

You can also get information about your health care from NHS Helpline
Helpline phone: 0800 22 44 88 (7 days a week, 8am to 10pm)

You can find more information about healthy eating and exercise on the Health Education Board for Scotland (HEBS) website: http://www/hebs.co.uk
You can find the guidelines for doctors on the drugs currently available in the UK for ‘intermittent claudication’ on the Internet or by contacting the organisation below.

**Drug Therapy for Peripheral Vascular Disease (1998)**  
Scottish Intercollegiate Guidelines Network (SIGN)  
Website: [http://www.sign.ac.uk](http://www.sign.ac.uk)  
SIGN Secretariat  
The Royal College of Physicians of Edinburgh  
9 Queen Street  
Edinburgh EH2 1JQ

We got our information about research on the effects of exercise and other therapies on ‘intermittent claudication’ from the Cochrane Library. This information might be available at your local library. You can find summaries of this research on the following website.  

You can find more information about research into the benefits of stopping smoking, taking exercise, diet and aspirin for preventing heart disease and stroke in:  
**Clinical Evidence:** a compendium of the best available evidence for effective health care, Issue 4. BMJ Publishing Group (December 2000).  
Website: [http://www.clinicalevidence.org](http://www.clinicalevidence.org)
This leaflet has been written by researchers at the Health Services Research Unit at the University of Aberdeen. They have used the best research evidence available to make sure that the leaflet is as accurate as possible. They have checked the content with:

- health professionals;
- consumer representatives; and
- people who have ‘intermittent claudication’.

The authors of this leaflet have made every effort to be as accurate and up to date as possible. They checked the information in this leaflet in March 2001. However, medical knowledge is always changing. Many factors affect how well medical knowledge applies to particular individuals. You should also get advice from qualified health-care providers.

Chest, Heart and Stroke Scotland provided the picture of the artery.

Those involved in producing this leaflet will not be responsible for any mistakes or missing information in the leaflet. And, they will not be responsible for any action that you may take as a result of using this leaflet.

April 2002
You can get more copies of this leaflet by phoning the NHS Helpline on 0800 22 44 88 (7 days a week, 8am to 10pm) or from the Scottish Health on the Web (SHOW) at http://www.show.scot.nhs.uk

If you need this information in another language, please contact the Health Planning and Quality Division of the Scottish Executive Health Department at St Andrew’s House, Regent Road, Edinburgh EH1 3DG, or phone 0131 244 2839.