

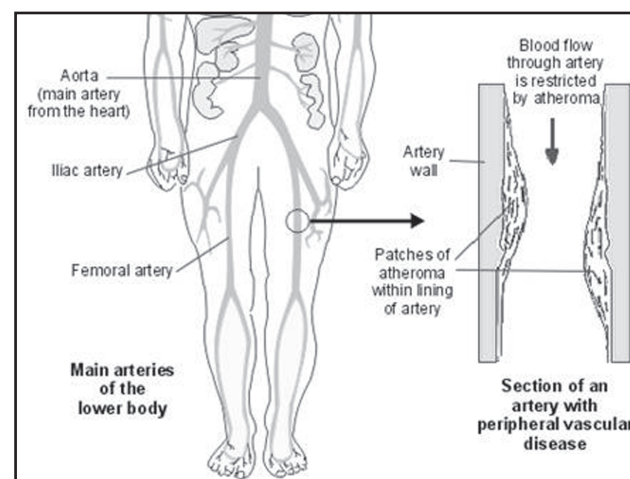
What is peripheral vascular disease (PVD)?

PVD is caused by furring of the large arteries, which carry blood to the legs, brain, heart, kidneys and abdominal organs. This furring up of the arteries is caused by atheroma, which is a thick deposit of fat and solid tissue inside the artery. It is a slow gradual process. If the disease is present in one artery then it is likely to be present in other arteries. The commonest arteries affected are the carotid arteries in the neck causing stroke, the coronary (heart) arteries causing angina and heart attack, the renal arteries causing renal failure and the arteries to the legs causing intermittent claudication and gangrene (death of tissue).

PVD affecting the legs

As the arteries to the legs are furred up, the blood supply to the leg muscles worsens. The calf muscles are the main muscles used for walking. The muscles demand more blood during walking. If not enough blood is getting to the muscle it becomes painful (claudicate) and you will start to limp. If you stop walking, the pain

will stop within a few minutes and then you can continue walking for about the same distance before stopping again. This is called intermittent claudication. Eventually the artery will become completely blocked. The distance that you can walk without pain will suddenly be less. The foot will become cold and at night you may be woken because of pain in your foot and have to get out of bed and walk around to relieve the pain. If this is ignored then there is a considerable risk that you will develop death of the tissues of the feet (gangrene) or ulcers on the toes, feet or ankles.



What causes atheroma and peripheral vascular disease?

- **Smoking Tobacco** – Smokers have 10 times the risk of PVD than non-smokers. The more you smoke the greater the risk.
- **Diabetes** – The risk of PVD is 2-4 times the normal risk and worse if the blood sugar is not controlled accurately.
- **Hypercholesterolaemia** - High blood cholesterol accelerates the development of atheroma.
- **Hypertension** – Uncontrolled hypertension (high blood pressure) is a major risk factor for atheroma.
- **Other factors** - The risk is greater in old age, males and in those with a previous history of angina, stroke and heart attack.
- **Family History** of Angina, heart attack, stroke or other symptoms of peripheral vascular disease.

How to stop the progress of atheroma and alleviate the symptoms of PVD affecting the legs.

1 Stop smoking – it is difficult to stop smoking. It is very important that you do stop smoking, and you will probably need help and support to do this. Please ask staff to refer you to the Whittington's smoking cessation clinic, or you can contact them directly on 0207 288 5236. If you prefer help is available in the community, your GP or local pharmacist will have details of services near where you live.

2 Exercise - plan a 1-mile circuit around your home. Walk the circuit twice per day. Walk till you begin to get pain in the calf, slow down and try to walk a little further each day before having to stop and rest. This makes your muscles fitter and will stimulate the development of new arteries to your muscles. Smoking blocks the development of these new arteries. Poor control of blood sugar in people with diabetes blocks the development of the new arteries.

3 Aspirin 75mg/day - aspirin has been shown to reduce the risk of heart attack and stroke. It may also inhibit the progress of intermittent claudication.

4 Statins - most patients who have atheroma will be prescribed statins by their GP. It helps stop the progress of atheroma, which is independent of their effect of lowering cholesterol.

5 Treat Hypertension – ideally there should be perfect control

6 Treat Diabetes – your blood sugar should be under perfect control

7 Obesity – eat a healthy low fat diet, this will help reduce cholesterol levels and make exercising easier

8 Alcohol – you can drink alcohol in modest amounts

(If you have atrial fibrillation there is a risk of blood clot developing in the heart, breaking off and suddenly blocking a major peripheral artery)

When to seek emergency help if you have intermittent claudication or atrial fibrillation

If you develop any of the following symptoms you **must** attend your nearest emergency department as quickly as possible. **Dial 999 for an ambulance.**

- Sudden onset of a cold white leg
- Constant severe pain in the foot and/or leg
- Blackness or infection of the toes and/or feet (i.e. foot infection is an emergency in diabetic patients)
- Pain in the chest, upper back, neck, jaw or shoulder
- Fainting or loss of consciousness
- Sudden numbness, weakness or paralysis of the face, arm or leg, especially on one side of the body
- Sudden confusion, trouble speaking or understanding
- Transient blindness in one or both eyes
- Sudden dizziness, difficulty walking, loss of balance or coordination
- Sudden severe headache with no known cause

Further information

British Heart Foundation

14 Fitzharding Street, London W1H 6DH

Tel (Heart Information Line):

08450 70 80 70

Web: www.bhf.org.uk

The Circulation Foundation

Web:

www.circulationfoundation.org.uk

Publishes a number of patient information leaflets to help identify and treat vascular illness. It also funds research into the prevention and causes of vascular disease.

**Department of
Surgery**

**Peripheral vascular disease
(PVD)**