
Buerger's Disease Factsheet

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Buerger's disease is a condition which causes inflammation of the small and medium-sized blood vessels of the arms and legs. It is also known as thrombophlebitis obliterans. People with Buerger's disease tend to get reduced blood flow, particularly of the hands and feet. This can cause pain and other symptoms. Buerger's disease is associated with smoking. If you are a smoker and have Buerger's disease, stopping smoking will help the condition get better.

Who gets Buerger's disease?

Buerger's disease occurs more commonly in some people than others. It affects about 5 people in a 1000 in Europe but it can be much commoner in people of oriental origin, including those who live in south-east Asia, India and the Middle East. It is commoner in men than women, but the increase in smoking in women has resulted in this gap narrowing. It usually develops between the ages of 20 and 45.

What causes Buerger's disease ?

Buerger's disease is caused by inflammation of the small and medium-sized blood vessels of the arms and legs. It particularly affects the hands and feet. Arteries are usually affected but it can affect veins as well. The inflammation causes the formation of small blood clots and this can block the blood vessel and stop the flow of blood. The inflammation often does not affect the whole blood vessel and some segments may be normal. The reasons why the inflammation starts are not certain but there are theories that there is a reaction between blood cells, the lining of blood vessels and nerve cells. This reaction is triggered by cigarette smoke in people whose genes make them prone to develop the condition.

What are the symptoms of Buerger's disease?

You may get slight swelling of the hands and/or feet and they may feel cold. You may notice that they become pale or develop a red or bluish colour. You may start to feel a burning pain in the hands and feet. Pain in the legs can sometimes develop after walking (this is called intermittent claudication). If the condition gets worse you may notice it occurring when you are resting as well. Night-times are often worst. Other symptoms may include numbness or tingling of the hands and feet. Your symptoms may get worse in cold weather. If the disease worsens, other features may develop such as painful ulcers on the hands or feet, and skin infections. If the blood supply becomes completely blocked tissue starts to die off and turn black (gangrene).

How is Buerger's disease diagnosed?

There is no one test that can be done to diagnose Buerger's disease. An examination may show that you have missing or reduced pulses in the arms or legs. You may need tests to rule out other causes of your symptoms such as diabetes, problems with your immune system, and conditions affecting the heart and circulatory system. An investigation called an angiography may be helpful. This involves you having an injection of a special dye called contrast media and then having xrays of the arteries of your arms, hands, leg and feet. A test which uses sound waves to show how blood circulates through the arteries (a Doppler ultrasound) may be helpful. You may also be offered a heart scan (echocardiogram). A biopsy of blood vessel tissue may be required in difficult cases.

What is the treatment for Buerger's disease?

There is no particular medicine that will cure Buerger's disease but if you stop smoking this can sometimes halt the condition in its tracks. Other things you can do to help yourself is to wrap up warm in cold temperatures, wear well-fitting footwear that will protect you from injury, and do some gentle exercise to keep the circulation in the arms and legs going. Don't sit around or stand in one position for long periods of time and avoid tight-fitting clothing.

You may need painkillers to control pain and antibiotics to cope with skin infections or infected ulcers. You may need an operation if you get a lot of tissue damage, if ulcers do not heal, if you get gangrene or if you get a lot of pain. Damaged or dead tissue may need removing and some people may need to have fingers or toes amputated. Sometimes a whole foot or the leg below the knee may need to be removed.

Does Buerger's disease get better?

If you develop Buerger's disease and keep smoking you will increase the risk of getting ulcers and gangrene and may eventually require amputations.

Further reading

Fazeli B et al, A review on thromboangiitis obliterans pathophysiology: thrombosis and angiitis, which is to blame?

<http://www.ncbi.nlm.nih.gov/pubmed/21652666>