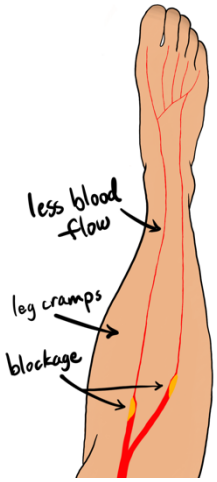
Blood Flow in Diabetic Feet

When we are sitting down, we don't need much blood to our leg muscles. When we walk however, our leg muscles are working much harder than when sitting, and so there is a bigger need for blood. A small blockage in an artery may allow enough blood to the leg muscles when sitting, but may not deliver enough blood when walking. The result is experiencing a leg cramp.

At first, the cramps will only be there with walking or exercise. If we stop to take a break, the cramps go away. After walking again for a bit, the legs cramp come back. This pattern is called **intermittent claudication**.



If the blockage worsens, we will start getting leg cramps even when we're sleeping. This is called **rest pain**. The cramps will go away when we dangle the leg off the edge of the bed.

A simple test that tells us if the leg pain is related to blood flow involves comparing the blood pressure of the leg compared to the arm, called an **ankle-brachial index (ABI)**. If the ABI shows a problem with blood flow, there are a few things we can do to treat it.

Exercise

Our bodies are amazing at adapting to problems. It can grow new arteries to go around the blockage, in a process called **collateralization**.

Surgery

Vascular surgeons can find the exact location of these blockages using a surgical technique called an **angiogram**. Using a small incision, the surgeon will insert a thin wire into the artery to find and treat the blockage by inflating a balloon to open up the artery, and maybe placing a stent. If the blockage is too big for stents to be effective, then **bypass** surgery may be considered. This surgical procedure involves using your body's vein and stitching it into the blocked artery, allowing blood to flow around the blockage.

Summary:
A test called an ABI tells us if the leg cramps are caused by a blood flow problem.
If you have poor blood flow, keep exercising and see a vascular surgeon.