

Nerve Blocks for Lower Limb Surgery

Lower limb surgery may cause considerable pain in the first 24 hours after the operation. One of the most effective methods of relieving this pain is to use nerve blocks, which numb the nerves carrying pain sensation from the operation site.

There are two major nerves to the leg, the *femoral nerve* and the *sciatic nerve*. Either or both may need to be blocked, depending on the operation.

The *femoral* nerve is usually numbed in the groin, just to the outer side of the pulse at the top of the leg. Alternatively (and less frequently), it is numbed through the back, to the side of the spine.

The *sciatic* nerve may be blocked through the buttock, on the inside of the thigh, or behind the knee. The route depends on what operation you are having and how easy it is to feel the landmarks at the various sites.

These nerve blocks may be performed after general anaesthesia (sleep) has been started or while you are awake.

It is necessary to identify where the nerves are before they can be successfully blocked. This is done with the aid of a nerve stimulator, which passes a tiny electrical current through a special needle. When this needle is next to a nerve, the muscles to which the nerve goes will twitch. In an awake patient, this comes as a surprising sensation, but not one that is usually painful. Nerves can be identified using ultrasound. Most of the time we use combination of ultrasound and nerve stimulation.

When the needle is accurately located, local anaesthetic solution is injected through the same needle, and produces numbness in the leg, usually for 12 - 24 hours (there is considerable variation), abolishing pain. You may not be able to move your leg or foot during this time - it may feel like a "lump of lead", similar to the feeling in the jaw after a local anaesthetic at the dentist.

There are occasional problems from this procedure - as with anything we do in medicine. Most of these last only as long as the local anaesthetic lasts. Damage to nerves, blood vessels and other structures is rare. The most frequent problem is altered sensation in part of the leg or foot, which may persist for some weeks, but which usually resolves on its own. Long-term nerve problems are very rare (the largest survey estimated an incidence of less than 2 in 10,000).

Occasionally the block is unsuccessful. You will then be given another form of pain relief after the operation.

When the block wears off after the operation, you may feel pins and needles in your leg, which gradually disappear. If the operation site starts to feel painful, it is important that you let your nurse know at once so that you can receive a pain-killer immediately, by injection, tablet or suppository.