

Micro-invasive carpal tunnel release

You are considering having your carpal tunnel release performed by me using the new micro-invasive ultrasound guided technique. This information sheet is to guide you in what to expect and tell you about the risks of the procedure.

The ultrasound guided methods are very new with less than 1000 cases reported worldwide to date. The technique using the micro i-Blade is only currently available in Australia in Wangaratta and only one other practitioner (that I know of) in Australia is currently offering ultrasound guided carpal tunnel release.

The use of ultrasound to guide a needle based blade for carpal tunnel release has been a 10 year project of mine, I am the inventor of the micro i-Blade and may eventually receive a royalty payment for it's sale. I am recognised in Australia and worldwide as an advanced practitioner in the use of ultrasound to guide needles.

Procedure

The operation is done in an operating theatre or procedure room. It will be done under local anaesthetic so there is no need to stop eating and drinking. To reduce the risk of infection we use an antiseptic skin preparation and the equipment is sterile. After an ultrasound examination to map and mark out the location of the structures, local anaesthetic will be injected into the operation site, this will sting a bit. You will be lying down with your hand to the side on a table with a bolster under the wrist to bend the fingers back.

Under the guidance of the ultrasound the needle sized micro i-Blade is inserted under the carpal ligament and the blade extended, the ligament is cut on pulling the blade out with pressure over the heel of the hand. It often takes several cuts to completely sever the ligament. The effectiveness of the cut is assessed using the retracted micro i-Blade as a probe. When I decide that the ligament is completely cut the hand will be cleaned and a band-aid and light bandage applied. The bandage can be removed that night or next morning. The band aid can remain until the needle hole is sealed.

Recovery

If you are having one side operated on, a return to normal function can be within a few days but it depends on the type of activity you are doing. The hand will be weak for some time and heavy work such as pulling yourself up may take up to 6 weeks. There will probably be some discomfort in the heel of the hand for several months. Bilateral release will take longer however normal social activities should be possible within a few days and activities such as driving in about a week.

I will inject long acting local anaesthetic at the time of the procedure and this often makes the fingers numb for the first night. Once this wears off most people only need paracetamol.

Recovery from the symptoms of carpal tunnel syndrome will vary depending on the severity and duration of the problem. Pain and tingling are usually relieved from the time of the operation, numbness is slower to resolve and may not ever go completely.

Risks

The main risk of carpal tunnel release is damage to the nerves, particularly the nerve to the thumb. This may occur with any form of carpal tunnel release and fortunately, this risk is rare. Because the nerves are imaged and identified on ultrasound imaging it is possible that this risk may be lower with ultrasound guided release however the worldwide experience is still limited. With surgical procedures there are always risks of bleeding, infection and damage to other structures such as the tendons. Other risks include non-relief of your symptoms and persistent pain in the hand.

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