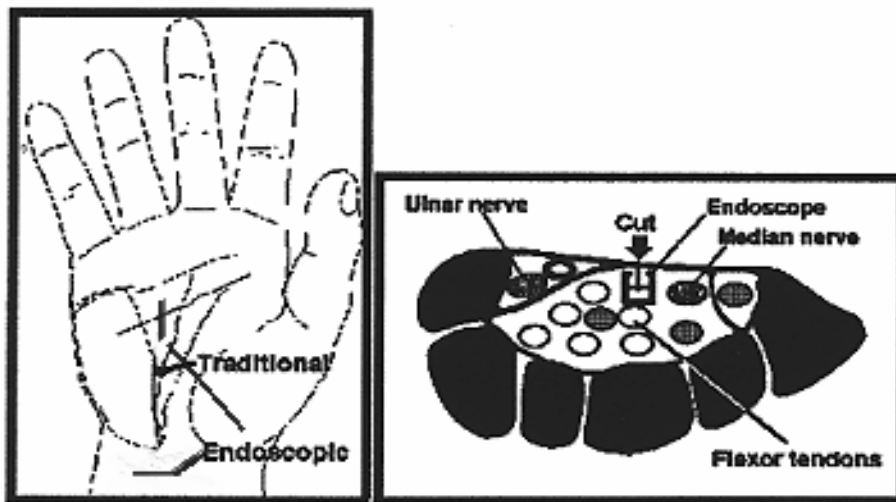


# Carpal Tunnel Release

## Introduction

Carpal tunnel syndrome is due to compression of the median nerve within a tunnel comprising a "U" shaped collection of bones with a tight ligament at the top. The nerve gradually withers if the condition is not treated. This causes permanent loss of sensation and wasting of thumb muscles which cannot be relieved by surgery.

This problem is corrected by cutting this ligament, to relieve the pressure within the tunnel. This can be achieved in two ways:



- **Traditional technique** - A cut is made in the palm and the carpal ligament is reached by cutting through the underlying tissues and muscle. The ligament then is cut under direct vision.
- **Endoscopic technique** - This technique allows the carpal ligament to be reached from small cuts in the area of the wrist and palm. The ligament is seen using a small telescope which provides a magnified image on a television screen that the surgeon watches whilst performing the surgery.

**Choice** - The endoscopic approach produces a smaller scar in a less sensitive area and it allows the surgeon to be more selective as to which tissues are cut. It therefore shortens the time taken for you to get back to your normal activities. However, it is not always possible to perform the operation with the endoscope and it may be necessary for the surgeon to convert to the traditional technique. There are arguments for and against both techniques and your surgeon will discuss these with you. In the long term, the results of the two techniques are equal.

## Post-Operative Care

The operation is usually performed under general anaesthetic. Local anaesthetic is often injected around the cuts at the end of the operation. This area and possibly some of the fingers will remain numb for up to ten hours after surgery. As this effect wears off, it may be worth taking some pain killers.

Hand elevation is important to prevent swelling and stiffness of the fingers. Please remember not to walk with your hand dangling, or to sit with your hand held in your lap. Hand movement should be continued and you should perform normal light activities after the operation.

You will be discharged with a bulky dressing, consisting of gauze, wool and a crepe bandage. Please remove the entire dressing after 24 hours and inspect the wound. There obviously will be some swelling and bruising. Look out for any redness or tenderness in the area around the wound which might indicate an infection. Do not apply antiseptic. Please contact my secretary if you have any worries.

Now it is safe to get the hand wet in a bath or shower. The wound and the surrounding skin often becomes very dry and will be more comfortable if a moisturiser is applied.

You can drive a car after 1 week as long as you are comfortable and have regained full finger movements. Timing of your return to work is variable according to your occupation and you should discuss this.

Your pain at night should settle immediately. Any tingling in the fingers may take some weeks to disappear.

## **Complications**

**Nerve Damage** - Nerves running in the region can be bruised or damaged during the surgery and form a painful spot in the scar (neuroma) or numbness. The most commonly involved areas are the heel of the hand (traditional) or the space between the middle and ring fingers (endoscopic). This complication is rare (2%) but may require a further operation to correct.

**Recurrence** - If you continue to have attacks of tingling and numbness, it might mean that not all the ligament has been cut. This is rare(1%) but the operation would need to be repeated to correct this.

**Infection** - Any operation can be followed by infection and this would be treated with antibiotics.

**Scar** - You will have a scar with either technique which will be somewhat firm to touch and tender for 6-8 weeks. This can be helped by massaging the area firmly with the moisturising cream.

**Grip** - You will find that your grip is weaker than previously and slightly painful, causing discomfort in the heel of the hand. This will gradually improve over six months.

**Stiffness** - About 5% (1 in 20) of people are sensitive to hand surgery and their hand may become swollen, painful and stiff after any operation (reflex sympathetic dystrophy). This problem cannot be predicted but will be watched for afterwards and treated with physiotherapy.

**Recovery** - Patients who had very numb fingers or wasting of the thumb muscles before surgery will probably never regain full nerve function. Recovery can be very slow (6-12 months). As the nerves grow back, the fingers can actually feel tingly or even unpleasant.