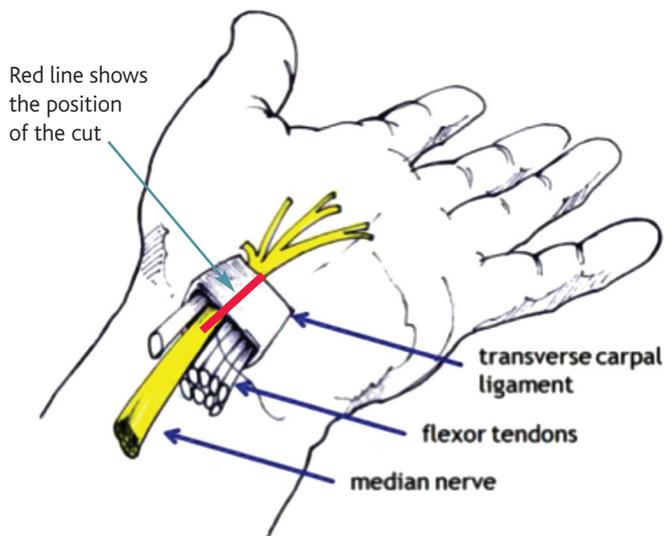




**SURGERY**

# Carpal Tunnel Decompression

## Diagram of Carpal Tunnel area



### What does this involve?

This involves cutting the tight strap (transverse carpal ligament) over the top of the median nerve on the front of the wrist.

### When is this surgery needed?

This operation is performed to relieve pressure on the median nerve but also to avoid long-term damage to the nerve which can result in poor hand function.

Many people occasionally wake from sleep with numbness and tingling in the thumb and index and middle fingers. Surgery might be considered if you have:

- Unpleasant, regular symptoms interfering with your day to day activities
- Persistent numbness all the time in the finger tips – this implies the start of permanent damage to the nerve which might not recover even if you have the operation

For milder symptoms splints worn at night to keep the wrist flat or steroid injections around the nerve at the wrist might help settle things down without surgery.

### Which operation is the right one for me?

The vast majority of hand surgeons use a small skin incision (about 2-3cm long) to find the transverse carpal ligament and divide it under direct vision. Surgery through smaller incisions using a light and knife down a tube (endoscopic carpal tunnel decompression) has also been described. No consistent benefits from this approach have been documented.

|                            |                   |
|----------------------------|-------------------|
| <i>Type of Operation</i>   | Day case          |
| <i>Length of Procedure</i> | 15 minutes        |
| <i>Anaesthesia</i>         | Local Anaesthetic |



## What are the main risks of this operation?

### *Swelling, Stiffness and Scar pain*

This can be reduced by keeping the arm elevated and moving all the free joints as soon as possible. Local swelling around the surgical site can persist for several months. Local swelling can be helped by massaging the tissues and this may also improve any irritability in the surgical scar. Occasionally patients are troubled by more swelling and stiffness than average. In this case complex regional pain syndrome (CRPS) is sometimes the cause (see relevant information sheet in 'Conditions we Treat'). Severe CRPS occurs in less than 1% of cases.

### *Infection*

This is unusual in the hand (less than 1% of cases). Local wound infections can often be treated with oral antibiotics. Rare, deep seated infections may require re-admission to hospital, antibiotics into the vein and occasionally more surgery.

### *Nerve Damage*

The nerves most at risk with this operation are small branches supplying the skin next to the scar. Occasionally the ends of these nerves can be very tender after the operation but usually this responds well to time and massage.

Significant direct damage to the median nerve or its main branches is extremely rare with this surgery if your operation is performed by an experienced hand surgeon.

Very occasionally some of the local anaesthetic used for the operation may go into the median nerve. This can damage the nerve. Usually this is temporary but may result in increased numbness in the finger tips for some weeks after the operation. Whilst the local anaesthetic injection is uncomfortable it should not result in shooting pains into the finger tips. If you have this sensation when your surgeon is putting in your local anaesthetic you should tell them immediately so they can adjust the position of the needle.

### *Wrist Pain (pillar pain) or increased Thumb base pain*

Some patients find they have an aching discomfort on either side of the wrist for a few weeks after this operation. This is called 'pillar pain' and probably relates to the bones of the wrist adjusting to a slightly different resting position after the transverse carpal ligament is cut. This discomfort usually settles within a few weeks.

Patients with pre-existing arthritis in the joints at the base of the thumb may find that this pain also increases for a while after carpal tunnel surgery. Again, this usually settles down after a few weeks.

### *Residual numbness in the fingers*

If your finger tips were permanently numb before the operation they may not recover immediately after the operation. Recovery of sensation may continue even up to two years after surgery, but some people never regain full, normal sensation in the tips of the fingers. Pressure symptoms (pain, increased pins and needles at night and in certain wrist positions) should be relieved immediately after the operation.

### *Residual pressure symptoms and recurrence*

On-going symptoms relating to pressure on the nerve after the operation imply that some of the ligament over the nerve has not been divided.

Symptoms that return years after a successful operation imply that the ligament has re-grown over the nerve and further compression is occurring. Either of these two problems may require further surgery.

Other conditions can cause nerve symptoms and need to be carefully excluded.

## Post Operative Course

### *Day 1 & 2*

- A sticky dressing and padded bandage is applied after the operation
- Keep the dressings clean and dry
- Keep the arm elevated in a sling or on pillows to reduce swelling
- Start moving all the joints immediately after the operation to prevent stiffness (see Carpal Tunnel Decompression rehabilitation sheet)
- Take painkillers before the anaesthetic wears off and as necessary thereafter

### *Day 3 - 14*

- You can take off the padded bandage but keep/replace the sticky dressing over the wound to protect it.
- Keep the wound clean and dry
- Continue gently exercising the hand and wrist. You can use the hand for light activities but avoid heavy loading and prolonged periods with the hand dangling down below your waist.

### *2 Weeks*

- A wound check and removal of stitches should occur between 10 and 14 days after your surgery. The details will be arranged on the day of your surgery.
- Continue gradually increasing activities with the hand and wrist as comfort allows.
- Once the wound is completely sealed a daily session of 10 minutes massaging the scar with unscented hand cream is often useful to disperse swelling and desensitise the scar.

### *6 Weeks*

- Most people are back to normal activities by this stage although scar massage may still be useful

### *3 Months*

- It may take this long for residual discomfort in the scar and wrist to settle down.

### *Post Operative Difficulties*

Contact your surgical centre at any stage if:

- Your fingers become more swollen, stiff or painful than you expect
- You see any discharge, wetness or detect any unpleasant smells from below your dressing

Outside normal working hours you may need to attend your local Accident and Emergency Department for help with these issues.

### *Driving*

You may drive when you feel confident to control the car, even in an emergency.

Many patients, particularly if they have had right sided surgery, find they can drive within a week of this operation. Left sided surgery (for the gear stick and hand brake) may take a little longer.

### *Time off Work*

This will vary depending on the nature of your job. A light desk job may only require a few days off work. If you have a very heavy job you may need up to 6 weeks off work.

Sick notes can be provided on the day of your operation, at your clinic visits and by your own GP.