

## **Carpal Tunnel Syndrome Surgical Management Information for patients**

If you have been diagnosed with Carpal Tunnel Syndrome (CTS) this leaflet will help to understand the procedure and recovery and advice on the process.

- **Surgery**

CTS surgery is an operation to relieve the symptoms of CTS by dividing the ligament in your wrist that runs across top of the wrist bones, and creates a narrow channel in the wrist. In doing so, this decompresses the nerve. The surgery is typically carried out under local anaesthetic. After surgery – as with any surgery, you are likely to experience discomfort/pain after the anaesthetic wears off.

- **Recovery after surgery**

Everyone recovers differently and it also depends of how severe the CTS was pre-operatively. After the first couple of days you can experience:

- Pain around the wound
- Stiffness
- Swelling
- Weakness in the grip
- Nerve irritation

After one-three months after the surgery you can look forward to getting back to everyday activities, aiming to gain full strength in your hand.

- **Scar/wound care**

Scars are produced as a result of the body normal healing process. They may become more red and raised. The scar can take up to 18 months to 2 years to fully mature.

Scar care- if you are seeing the nurses/wound clinic for your wound, they will provide you the support you need and will monitor the healing. If you have stiches (dissolvable do not apply to this) they are normally removed after 2 weeks by the clinic you have had the surgery with or by wound clinic, who will take care of the bandages. However, we recommend that you look out for any signs of infection that could potentially delay the healing process. The signs of infection:

- Yellow/green discharge, puss
- Swelling, redness, hot to touch
- Strong smell
- If you are worried that your wound might be infected, please contact local services you are under – GP, wound clinic or nurse (if private hospital)

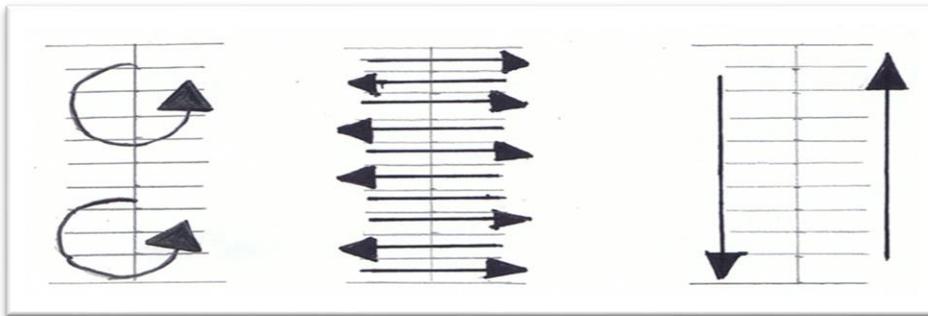
Details for wound clinic 0300 1233 444 following options: 1 -> 2 -> 2

Once the wound has healed fully and non-dissolvable sutures have been removed (usually 2 – 3 weeks after surgery), use your other hand to apply a small amount of non-perfumed moisturising cream to the scarred area. (Not savlon cream). If the wound is closed and you have dissolvable sutures, you can commence scar massage at this stage.



### Technique and Advice:

- Massage in circular motions as well as moving vertically and horizontally back and forth across the scar.
- Try to apply enough pressure to blanch/lighten the scar. You can press more firmly as it becomes comfortable to do so, but not so firmly that you cause your skin to become sore or open up.
- Try to move the skin away from any underlying tissue it is stuck to – but do not expect to release it completely
- Massage at least 4-6 times a day for 2 minutes each time
- Continue to massage until you feel the scarred skin feels similar to the rest of your hand, e.g. soft and mobile
- Cover new scars in the sun or use high factor sunscreen



### Scar sensitivity

Sometimes after a surgical intervention, the skin can become hypersensitive. In order to improve that, desensitisation is recommended.

How is it done?

- Controlled application of different textures (cotton, silk etc.) or movements (vibration, tapping, stroking)
- It is important that you are relaxed so you can concentrate on each texture/movement
- Practice little and often up to four times a day

### Desensitising programme:

**Massage:** using moisturising cream (E45, aqueous cream) make small circles around and on the sensitive area/scar. Gradually increase pressure over the next few days as the area becomes less sensitive.

### Texture massage:

Use different fabrics at home (up to 4 different textures)

Start with the most comfortable fabric, and gently stroke material over unaffected area, so then you can use your memory to remember what the feeling should be like

Then start on the edge of the affected area, and work inwards, making small circles over the area for about a minute

Repeat process by changing a different texture

### Immersion massage:

Chose different dry ingredients such as dry pasta, lentils, beans, rice.

Start with the less aggravating by immersing hand on the these. Do this for up to 5 minutes

As it gets easier, chose a different ingredient

### Vibration/tapping

With your finger, gently tap on the affected area, or use a mini massager or end of a toothbrush. Gradually build up the intensity of the taps.



## Oedema

After a surgical intervention swelling (known as oedema) can be expected and they are part of healing process. However, if that is persistent, it can delay the healing process.

Management of oedema:

Elevation-Keep hand elevated when not using it during day time. Elevate and pump hand.

Ice- safe application of ice (roll in tea towel prior application) for 5-10 mins. Caution- do not use ice directly on skin as it can burn the area.

Contrast bathing. This method can be only used once the wound is fully closed, to avoid any risks of infections. Contrast bathing helps to stimulate the circulation in the affected hand, encouraging the blood flow hence decrease of the swelling in hand.

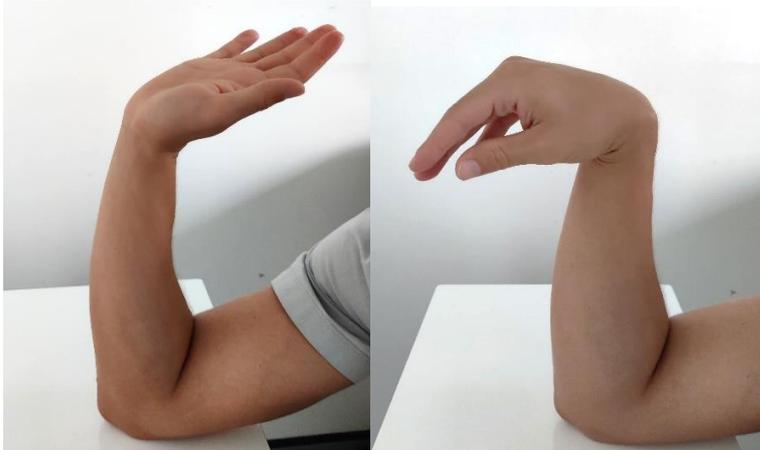
- Use one bowl with warm water and one with cold water
- Put hand in warm bowl and perform gentle finger exercises (make a fist, release) up to 10 times
- Put hand in cold water and rest for a minute
- Repeat this 4 times (should take approximately 6 minutes)

This process can be completed up to 4 times a day, depending of the level of oedema.

Exercises:

Wrist range of movement- bend wrist forward and back:

- Rest your elbow on a table
- Gently bend your wrist downwards (aiming for palm of hand towards forearm)
- Then aim to bend the wrist backwards (aiming for palm up)
- Do \_\_\_\_ repetitions



Wrist stretch:

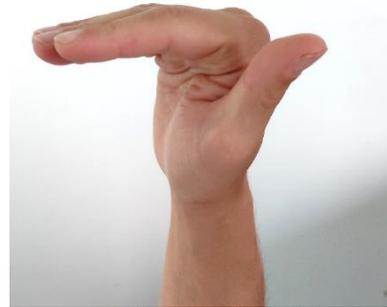
- Put your hands together under your chin in a prayer position
- Push your hands down to your waist **until** you feel a comfortable stretch
- Hold up to \_\_\_\_ seconds
- Do \_\_\_\_\_ repetitions



1. Straight fingers- straighten all your fingers



2. Table top – Keeping your fingers and wrist straight, bend at your knuckles



3. Straight Fist – Bend knuckles and middle joints, keeping tips straight.



4. Make a hook by bending the small joints with knuckles straight



5. Full fist- Bend all joints of the fingers into a full fist



#### Medial nerve glide:

- Stand with your affected hand out to the side, to shoulder level (if able) with palm up and elbow bent
- Slowly begin to straighten the elbow to the side, keeping your wrist extended, until you reach a comfortable point of tension
- Do not push any further
- Lift your wrist up (flex) and tilt your head away from the arm



- As you extend wrist (stretch) tilt your head towards the arm
- Do \_\_\_\_\_ repetitions

If you are not managing or improving post surgery, please seek further advice from your consultant or GP. If you are suffering with the complications mentioned above it might be beneficial to be referred into the hand therapy department at MCH house, however routinely therapy is not always required post this surgery.

If you have been referred to hand therapy and if there are any issues please ask for a message to be passed onto the hand therapy service. The number to call is 0300 1233 444 and follow options: 1 -> 2 -> 3 or email [medway.physiotherapy@nhs.net](mailto:medway.physiotherapy@nhs.net).

