

Hand therapy department

Flexor tendon injury

Information for patients

Introduction

You have had surgery to repair one or more flexor tendons in your hand/arm. This leaflet provides valuable information on your injury, surgery and rehabilitation after your operation.

What is a flexor tendon?

Tendons are tough flexible bands of tissue which connect muscle to bone and allow your joints to move. A flexor tendon is a specific type of tendon that lies in the front of your forearm, crosses the wrist and extends to your fingertips and thumb. They enable your fingers and thumb to bend towards your palm so you can close your hand during activity and are essential in allowing your hand to function normally. You have two flexor tendons in each finger and one in your thumb. The two finger tendons are called Flexor Digitorum Profundus (FDP) and Flexor Digitorum Superficialis (FDS) and the thumb tendon is called Flexor Pollicis Longus (FPL).

- FDP attaches to the bone at the end of each finger and allows you to curl your fingers into a full fist.
- FDS attaches to the bone above your middle finger joint and helps you to bend this joint and grip firmly.
- FPL attaches to the bone at the end of your thumb and allows you to bend your thumb fully into your palm.

Your injury and surgery

The plastic surgery team have repaired your damaged tendon with complex microsurgery by bringing the two cut ends together and putting some stitches inside and around your tendon.

Nerves, blood vessels, ligaments and bones can also be damaged in the same injury. This will be discussed with you by your surgeon and hand therapist, as every injury is different.

After the operation you will have been placed in a Plaster-of-Paris slab and you will need strict care to protect and prevent re-injury of your repaired tendon (rupture).

Referral to hand therapy

You have been referred to the hand therapy department who will guide you through your recovery following your operation. Your first hand therapy appointment should be within the first week of your operation and then on a regular basis following this.

On your first hand therapy appointment your therapist will remove the plaster of Paris and replace this with a lighter custom-made plastic splint which will be moulded to your hand. The splint will help to prevent movements and activity that will risk rupturing your tendon as your tendon repair is very weak after surgery. You will require protection in this splint for up to six weeks. You will also be taught specific exercises to do within your splint.

Splint

- This must be worn all the time for a minimum of four weeks from your surgery, including when you are sleeping and when showering or in the bath. After four weeks your splint will still be required for night and for protection in busy environments such as on public transport, while your tendon continues to heal.
- Do not place your splint near anything hot such as a radiator, as this will affect its shape/fit and result in the splint becoming uncomfortable.
- Check your skin regularly for red or sore areas using a safe technique shown to you by your therapist. Contact your therapist if you have any concerns or if your splint is uncomfortable.
- Use a plastic bag over the whole of your arm when in the bath or shower (please do not remove your splint)

Exercises

It is beneficial to start hand exercises soon after surgery. This helps avoid stiffness, reduces swelling, encourages tendon healing and improves movement in your finger/ thumb.

Normally as your finger/ thumb moves your flexor tendons slide up and down in a tunnel called a sheath. As your tendon heals scar tissue is formed which can restrict the sliding movement of your tendon and makes it difficult for you to bend and straighten your finger/thumb. Exercises can help improve the sliding motion of your tendon and improve your movement.

Your hand therapist will teach you the exact exercises to do within your splint at your first appointment and you will be provided with a separate exercise hand-out. You will be guided through the stages of tendon healing and your exercises will be progressed as the weeks pass, to help maximise the recovery of your hand.

Swelling management

- It is beneficial to try and minimise your swelling after surgery, as this can cause stiffness in your hand during your recovery process. To minimise swelling try to keep your hand lifted to your shoulder, above the level of your heart. This is particularly important during the first few weeks after your surgery.
- When sitting or lying use pillows to support your arm, especially when you are asleep.
- When you are out and about support your arm in a sling or use your arm muscles to hold your arm across your chest towards your opposite shoulder.

Wound care

Prior to coming to hand therapy and having your splint applied, you should have had your surgical dressings removed, your wound checked and cleaned, and a new dressing applied in the hand dressing clinic.

- It is important to keep your wound clean and dry to prevent the risk of infection.
- If you have been prescribed antibiotics make sure you complete the course.
- Smoking is associated with a delay in wound healing therefore consider reducing the amount you smoke or stop altogether. If you smoke, the best way of stopping is with a combination of specialist support and medication. If you would like to be referred to a smoking cessation service then please ask your therapist or GP to refer you, or you can self-refer through the NHS website.
- Signs of wound infection include; swelling, expanding redness and pain in the affected area, pus forming in or around the wound or feeling generally unwell with a high temperature (fever).
- If you suspect a wound infection go straight to A&E as you may need antibiotics.

Scar massage

You can start **scar massage** when your stitches have been removed and your wound looks dry

- Use a simple moisturiser, e.g. aqueous cream or E45, over your scar.
- Rub over you scar to encourage the skin to move normally.
- You can also do some massage without moisturiser.
- Perform this 3-4 times per day for approximately 5 minutes.

Tendon healing times

It takes 12-14 weeks for the healing tendon to return to its full strength. You will be guided through the different stages of tendon healing and given advice on what you can and can't do with your hand.

Time off work

Depending on your job/activity we would advise:

Type of work/ activity	Approximate time frames for using your injured hand
Office based	6-8 weeks
Driving	8-10 weeks
Manual work	10-12 weeks
Cycling	10-12 weeks
Contact sport	12-14 weeks

If you need a sick note for work, please visit your GP.

Important points to remember

Do

- ✓ Keep your arm/hand up to minimise swelling
- ✓ Keep your hand clean and dry
- ✓ Lift your arm above your head regularly to maintain shoulder movement
- ✓ Complete your exercises as advised by your hand therapist
- ✓ Contact your surgeon or hand therapist immediately or go straight to A&E if you are concerned about a wound infection or a tendon rupture (if you feel a sudden 'ping' or 'snap' or if your finger stops moving)

Do not

- ✗ DO NOT use your hand for any activity for the first four weeks. Your tendon is not strong enough and you are at risk of pulling your tendon repair apart (tendon rupture).
- ✗ DO NOT remove your splint during the first four weeks
- ✗ Drive

Useful contact details

To reschedule an appointment:

- 1) Phone: 020 3311 0333
Option 1: If your appointment is on the same day.
Option 2: If your appointment is another date in the future.
- 2) Email: appointments@imperial.nhs.uk

To contact a therapist: imperial.handtherapyimperial@nhs.net

How do I make a comment about my visit?

We aim to provide the best possible service and staff will be happy to answer any of the questions you may have. If you have any **suggestions** or **comments** about your visit, please either speak to a member of staff or contact the patient advice and liaison service (**PALS**) on **020 3313 0088** (Charing Cross, Hammersmith and Queen Charlotte's & Chelsea hospitals), or **020 3312 7777** (St Mary's and Western Eye hospitals). You can also email PALS at imperial.pals@nhs.net The PALS team will listen to your concerns, suggestions or queries and is often able to help solve problems on your behalf.

Alternatively, you may wish to complain by contacting our complaints department:

Complaints department, fourth floor, Salton House, St Mary's Hospital, Praed Street
London W2 1NY

Email: ICHC-tr.Complaints@nhs.net

Telephone: **020 3312 1337 / 1349**

Alternative formats

This leaflet can be provided on request in large print or easy read, as a sound recording, in Braille or in alternative languages. Please email the communications team:
imperial.communications@nhs.net

Wi-fi

Wi-fi is available at our Trust. For more information visit our website: www.imperial.nhs.uk

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