



York and Scarborough
Teaching Hospitals
NHS Foundation Trust

Surgery and Exercises for Carpal Tunnel Syndrome

Information for patients, relatives and carers

Trauma & Orthopaedics

① For more information, please contact:

York Hospital

Orthopaedic Out Patient Clinic York Telephone:
01904 726537

Advance Practitioner Hand Surgery Telephone:
01904 725978

Hand Physiotherapist Telephone: 01904 725390

Wigginton Road, York, YO31 8HE

Bridlington Hospital

Kent Ward, Bridlington Hospital Tel: 01262 423110

Bessingby Road, Bridlington, East Yorkshire, YO16 4QP

Contents	Page
What is Carpal Tunnel Syndrome?	3
What options are available to me to help with Carpal Tunnel Syndrome?	3
What happens if I am referred for surgery?	6
What are the benefits of surgery?	7
How do I prepare for the operation?	7
What happens when I arrive?	9
What happens before the operation?.....	10
What kind of anaesthetic will I have?.....	10
What happens during the operation?.....	11
Are there any risks involved?.....	13
When can I go home?	15
What happens before I leave the unit or ward?	15
How do I care for my dressing and wound after my operation?	16
When can I remove the dressings?	16
When will the stitches be removed?	17
How will I feel after my operation?	17
When should I seek urgent advice?.....	19
Infection.....	19
Exercises to do after your hand surgery for Carpal Tunnel Syndrome	20
Additional questions that patients sometimes ask	23
What should I do if I have any problems or worries about my operation after going home?	25
Follow up.....	26
Tell us what you think of this leaflet	27
Teaching, training and research.....	27
Patient Advice and Liaison Service (PALS).....	27
Leaflets in alternative languages or formats	28

What is Carpal Tunnel Syndrome?

Carpal tunnel syndrome, sometimes called CTS is a painful condition that is caused by pressure on a nerve travelling from your forearm across your wrist, through the carpal tunnel and to your hand. The ligament in your wrist that passes over the nerve may cause the pressure.

What options are available to me to help with Carpal Tunnel Syndrome?

Your GP will discuss these options with you before referring you for further investigation or surgery.

You can find more information on carpal tunnel syndrome and treatment options on the NHS Choices website: www.nhs.uk.

What a nurse or therapist can do to help

- Provide hand splints to support the wrist
- Help identify aggravating activities and suggest alternative postures

What you can do to help

- Wait and watch: It has been shown that there is usually no urgency to have surgery when symptoms come and go. The same result can be achieved if surgery is delayed until the operation is really needed.
- As many as two out of three people with mild carpal tunnel syndrome will have some improvement with stretching exercises designed to relieve pressure within the carpal tunnel.
- A splint which supports the wrist, to use while sleeping. This prevents you from bending the wrist and stops you increasing the pressure on the nerve.
- “Over the counter” non-steroidal anti-inflammatory medication (NSAID), such as aspirin, and ibuprofen. Check with your pharmacist regarding possible side effects and drug interactions.

What a doctor can do to help

- Confirm that this is actually the problem. This may require special nerve tests done by a neurologist.

Sometimes carpal tunnel syndrome is associated with underlying conditions that cause swelling at the wrist. In these cases the underlying conditions are treated first which might make treatment or surgery for carpal tunnel syndrome unnecessary.

- Prescribe stronger NSAID medication or cortisone-type medication.
- Prescribe hand therapy and or a custom prescription splint.
- The most effective treatment without surgery is a cortisone (a steroid) injection into the carpal tunnel; your own GP may wish to give you this.
- Depending on several factors, these measures can provide long-term relief in a large number of patients. Non-surgical treatment is usually not recommended for patients who have evidence of nerve damage: permanent altered sensation (numbness) or weakness.
- Surgery for carpal tunnel syndrome is intended to provide more space for the nerve and tendons, so that swelling will not put excessive amounts of pressure on the nerve. It is usually done through an incision on the palm or the front of the wrist.

In this case, cutting the ligament can relieve the condition.

What happens if I am referred for surgery?

This leaflet explains a little about carpal tunnel surgery; what will happen before, during and after your operation. It tries to answer some of the questions you may have.

The doctors and nurses are there to help you. They will always make time to listen to you and answer your questions. If you do not fully understand anything about your operation, please ask.

If you have been given an admission form to complete, please bring the completed form with you when you come for your operation.

If you become ill or cannot keep your appointment for any reason, please tell us as early as possible so that another patient can be offered treatment.

We will rearrange your appointment.

Here are the department telephone numbers. Please ring the department where you are being treated:

Day Unit Waiting List for York Hospital
Tel: 01904 725541

York Clifton Park Clinic: Tel: 01904 721963

Waiting List for Scarborough/Bridlington Hospitals
Tel: 01723 342078

Kent Ward at Bridlington Hospital
(If cancelling on the day of your appointment)
Tel: 01262 423110

What are the benefits of surgery?

The operation is performed to relieve pins and needles and pain. Permanent numbness and weakness in the hand are due to damage to the nerve and recovery may take months or be incomplete. The procedure is also carried out to prevent the symptoms getting worse and progressive damage to the nerve.

How do I prepare for the operation?

Before you come into hospital, on the day of your operation, wear garments with loose and wide sleeves, as you will have a large bandage on your hand after the operation. Ladies may find it helpful to wear a front fastening bra if they have one.

Please help us to make sure that your surgery will go ahead by following these instructions:

If you are taking medication to 'thin the blood' you may need to stop this before your operation. Please let us know you are taking these as we need to give you advice. It may be necessary to stop your medication for as much as ten days before your operation. You may need to come to another appointment at the hospital before your surgery to plan your care.

If you are having a general anaesthetic, you will need to come to a pre-operative assessment. We will give you advice about preparing for your surgery and after care.

Please follow the rules below:

- 1. Do keep all jewellery at home.** You can keep your wedding ring on if it is on the hand we are not operating on. However, you do need to remove all rings from the hand we are operating on. If you are unable to remove it, there is a risk that swelling in your hand will interfere with the circulation in your finger. You should be aware that we may have to cut off the ring when you come to hospital, or you should be able to get to an emergency department in case the ring becomes too tight after you have gone home. This is uncommon, but we feel you should be made aware of this possibility.
- 2. Nail varnish must be removed before surgery** so we can observe your circulation after surgery.
- 3. If you need to take any medications whilst you are at the hospital, please bring these with you in their original packets.** Please tell the nurse about these when you arrive.
- 4. Do bring something to help pass the time while you wait** e.g. books, magazines.
- 5. Please let us know if you have any additional needs.**

Please ask if there is anything about which you are uncertain or do not fully understand about your treatment.

What happens when I arrive?

The nurses introduce themselves to you and explain what will happen to you during your stay. You will be asked about your present medicines, any allergies you may have, your arrangements for going home and who is to look after you.

Please expect to be at the hospital for two to three hours.

Your nurse will complete all the necessary paperwork and safety checks.

The surgeon or specialist nurse will check your details with you and (if this has not already been done) ask you to sign a consent form (FYCON49-1 Surgery to Release Carpal Tunnel Syndrome) saying that you:

- Fully understand your operation and anaesthetic
- Fully understand the risks and benefits
- Are aware of the alternatives and
- Agree to have the operation

The form will be kept in your patient notes and you will also be given a copy for your own records.

What happens before the operation?

You may be taken to the recovery area to have a local anaesthetic put in before going into theatre.

You will be taken to the operating theatre where your identity is checked again as part of safety procedures.

What kind of anaesthetic will I have?

Your operation will normally be carried out under a local anaesthetic where you will be awake throughout the operation. Local anaesthetic is injected into your wrist to numb the area of skin where the cut will be made. You will still be able to feel your fingers and your hand being moved around, you will not feel pain.

If you need or prefer having a general anaesthetic, there are extra preparations before surgery. We will advise you about things you need to do at a pre-assessment.

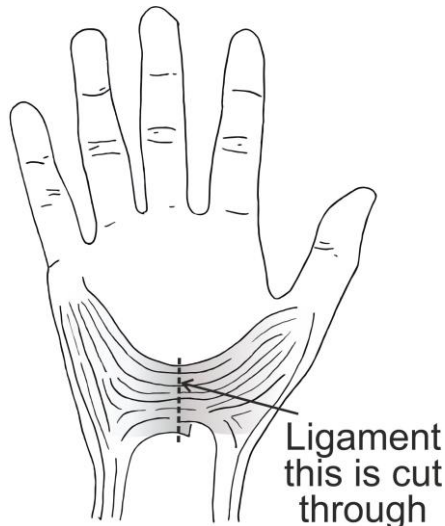
Rarely if you are having more than one operation at the same time you will need a regional (numbing the nerves higher up) or general anaesthetic. In this case you will be asked to attend pre assessment and be given instructions on your admission and discharge.

Carpal tunnel syndrome can be associated with other medical conditions, such as rheumatoid arthritis, and may require a more extensive cleaning out of the tissue around the tendons, referred to as a synovectomy. This may need further surgery under a different anaesthetic.

What happens during the operation?

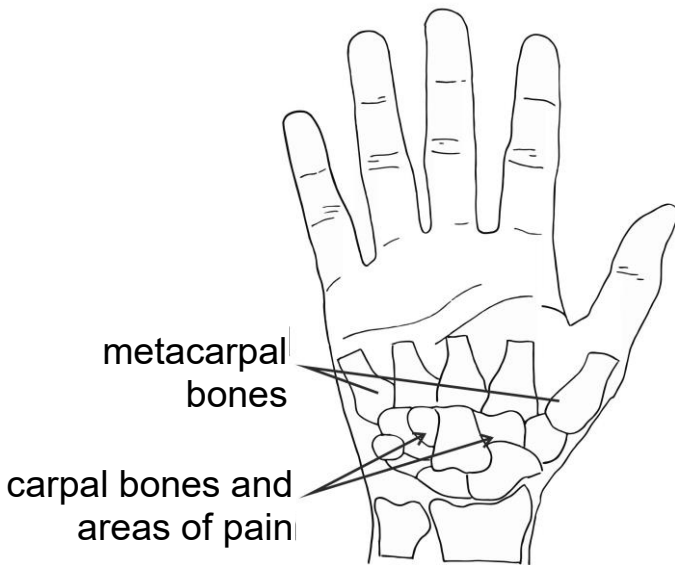
There are many different techniques used for the surgery; whether it involves a cut in the palm, wrist, smaller or longer cuts or different instruments, the one thing in common is that the thick layer of ligament on top of the nerve is cut to release the pressure on the nerve.

We need to reduce bleeding/blood flow to your hand for the operation. To do this we will either stop the circulation around your upper arm using a tight band (tourniquet) or we may give you your local anaesthetic along with a small amount of adrenaline. The method is chosen by your consultant team and will discuss this with you on the day. If we are using a tourniquet, we will put this around your upper arm like a blood pressure cuff. This stays in place for around five minutes and can be very uncomfortable.



The skin is closed with stitches and a dressing is applied. You should keep your hand elevated to reduce swelling, bleeding and pain.

After surgery, the healing edges of the ligament, beneath the skin, are usually tender for at least six weeks to three months after the procedure. Temporary tenderness on each side of the palm, where the ligament is attached to the bones on each side of the palm, is common after surgery and is called “pillar pain”. This generally resolves gradually. Hand therapy including exercises and splints is often helpful during recovery.



Are there any risks involved?

1. Wound infection (less than one in 100 cases), this risk is increased if your dressing gets wet whilst the stitches are in.
2. Bleeding that can lead to a haematoma (blood clot under the skin) formation (less than one in 20 cases).
3. Nerve damage. This risk is very rare (less than one in 100 cases).
It could result in temporary or more permanent numbness and possibly weakness. The numbness can be in the palm of the hand or the fingers or thumb if nerves in this area are damaged.
4. Failure to stop symptoms. This affects around one in 20 people and may be due to damage or scarring of the nerve that happened before you had surgery. In this situation recovery often takes months while the nerve repairs but the weakness and numbness can be permanent if the nerve is unable to recover.
5. Tenderness on each side of the palm, where the ligament is attached to the bones. This is called “pillar pain”. This does not always happen and generally disappears. Troublesome, persisting pillar pain is not common (less than one in 50 cases).
6. The scar may feel sore or tender for around six weeks to three months after surgery.

7. A rare complication of any hand surgery or injury whether simple or complex is Complex Regional Pain Syndrome (CRPS) or Reflex Sympathetic Dystrophy (RSD). Less than one in 500 people suffer from this. It results in a painful stiff hand that can persist and be difficult to treat.

8. CTS can reoccur, years after the operation is carried out. This is uncommon (less than one in 20 cases).

When can I go home?

You will be able to go home after a short stay after routine observations to make sure you are recovering well from surgery. You won't be able to drive yourself as you will have a thick bandage on your hand and legally you cannot drive. Please organise transport home before you come in for your surgery.

What happens before I leave the unit or ward?

A nurse will go through the discharge instructions with you and tell you about the care you need at home. The nurse will give you any necessary follow-up papers and appointments. Please ask if you are unsure of any of the instructions.

You will have a small white dressing over your wound. This will be protected with a large, bulky dressing of cotton wool and a crepe bandage that will cover most of your hand and wrist.

The bulky dressing is for padding to prevent excessive bleeding and swelling and for protection of the wound. We suggest keeping it in place for two to three days following your operation. You will need to keep your hand elevated over the next two weeks. You may be provided with a sling to help this until your bulky dressing is removed. You do not need to wear this at night.

How do I care for my dressing and wound after my operation?

All dressings must be kept dry; if the dressing gets wet it needs to be changed straight away. It is very important that you keep your dressings dry, to minimise the risk of infection. When washing with the bulky dressing in place, you may fit a plastic bag over your hand and arm and seal it with tape to keep it dry. Remove the bag as soon as you have finished washing so that perspiration does not wet your dressing.

Your wound may become hard along its scar. This is due to the swelling and formation of the scar tissue, which eventually disappears. Some patients experience tingling, numbness, pulling and itching as their wound heals. These sensations are part of the healing process. Itching can be relieved by cooling the area.

When can I remove the dressings?

You can remove the bulky dressing after two to three days unless you have been instructed otherwise by your surgeon. You must keep the small white dressing in place and keep it clean and dry. If it is blood stained, gets wet or dirty, you should change the dressing and we will give you spare dressings on discharge. Keep the wound clean and dry until your stitches are removed. Wearing a household rubber glove when you are washing will help you do this but not for prolonged periods of time.

When will the stitches be removed?

The stitches are usually removed after 10 to 14 days. You can usually have this done at your GP surgery. The nurse will discuss this with you before you leave.

How will I feel after my operation?

Usually you will have moderate pain in your hand or wrist for two to three days. You should have some simple painkillers (such as paracetamol or ibuprofen) at home ready for after your operation. You are advised to take painkillers regularly over the first few days following your operation so that your pain is under control and you recover more quickly. As you begin to feel better, you will not need as many painkillers. You should reduce the amount you take gradually rather than stopping abruptly.

You should keep your hand **raised as much as you can with your hand higher than your elbow**. This will help to reduce pain and swelling. You should feel the need to do this gradually reduces over a couple of weeks. Support your hand on cushions when you are sitting. You should not walk with your hand at your side, as this will cause pain and swelling. It will help to wear a sling. Some swelling around the scar is normal for several months.

We will tell you how to loosen the bandage should swelling occur in the 72 hours following surgery.

You should move your fingers and thumb regularly after your surgery. Your exposed fingertips may have bruising following the operation but they should not stay white, blue or feel cold. The bruising should fade over the next couple of weeks.

Your fingers may feel numb for several hours following surgery due to the effects of the anaesthetic.

If your fingers feel tingly or painful, this is normal and should reduce when you elevate your hand and exercise your fingers and hands as instructed.

If this is not relieved by raising your hand and moving your fingers you must loosen the bandage. If there is no improvement you must contact the day unit, the ward, the outpatient clinic or your GP on the same day. If you cannot get in touch with the above please attend your local emergency department.

If you loosen your bandage and the problems lessen, you will need to get the bandage checked unless it is after three days after your surgery.

If you are worried about your circulation, a quick test you can do is to press on the end of a finger and then release it. The colour should return to normal within two seconds or a similar length of time to fingers on your other hand. If this does not happen, it may be a sign of problems with circulation caused by the surgery.

When should I seek urgent advice?

Please contact or attend your local emergency department:

If you have any of the following signs:

- Swelling or tingling “pins and needles” in your hand that is not relieved by raising it, exercises or loosening the bandage
- Your fingers remain white, blue, cold or numb
- You have pain that does not go away after pain relief or exercise

Infection

If you think you have an infection in your wound (three of the signs below) after surgery please seek advice from your GP or Practice Nurse

- You feel generally unwell or feverish
- Have a temperature
- Increased redness, swelling and pain around the wound which feels hard when you touch it
- A cloudy or smelly discharge from your wound
- The wound does not seem to be healing properly

Exercises to do after your hand surgery for Carpal Tunnel Syndrome

Following your hand operation you will get some swelling in your hand and or fingers, this is normal. The surgical procedure causes swelling. Swelling can hinder wound healing because it obstructs the circulation from taking nutrients to the wound to aid in the healing process.

Swelling restricts movement of fingers as it takes up flexibility in the soft tissues that is present to allow movement of joints. If swelling is allowed to sit around joints it will lead to joint stiffness.

To keep swelling to a minimum

1. Always rest with your hand higher than your elbow
2. When walking, do not hang your arm by your side for more than a minute at a time

It is very important that you start the following exercises as soon as you have had your operation. These exercises work the small muscles in your hand, returning the blood to the heart and helping reduce the swelling in the soft tissues.

You will have a bulky bandage on your hand after the operation over the next three days.

Carry out the following exercises as soon as you get home and over the next two weeks as your bandage will allow. Do not worry about stretching your skin as the stitches will stay in place.

- every 30 minutes
- until your stitches are removed

Put your arm straight up in the air then:

1. bend and straighten the joints of your fingers that protrude out of the bandage
2. spread your fingers and thumb so that the skin on the side of the fingers feels tight and hold for 10 seconds
3. Then press the fingers together really tightly and hold for 10 seconds

Do not worry about your stitches; they will not be affected by the exercises.

To prevent the nerve getting stuck

Once the bandage is removed, three times a day you should stretch your arm out to the side and then bend your wrist backwards, until it is uncomfortable then relax.

To prevent the scar getting too tight

Once the skin is healed, you should massage the scar with cream e.g. E45, or whatever suits your skin. This helps to remove the dry skin which will become harder if not moisturised, it will then act as a splint preventing the soft tissues from moving easily. You should also stretch your thumb and fingers out to their fullest extent at least three times a day.

If you have any problems with these instructions, or wish to obtain further information please ring one of the following:

York Hospital

Hand Physiotherapist	01904 725390
Orthopaedic Out Patient Clinic:	01904 726537
Advance Practitioner Hand Surgery:	01904 725978

Bridlington Hospital

Kent Ward:	01262 423110
------------	--------------

or

Phone your consultant's secretary through the hospital switchboard (01723 368111) to make an appointment.

Additional questions that patients sometimes ask

Can I bath or shower?

If you have had a local anaesthetic, you can bath or shower as usual. Please keep your dressings dry. If you had a general anaesthetic, it is not recommended that you use a bath until you are fully recovered from your anaesthetic the next day.

Will my bowels be affected?

Due to the changes in your usual routine and if you are taking painkillers containing codeine, you may experience a change in your bowel habit. This could take several days to return to normal. Drink plenty of fluids and try to eat a high fibre breakfast cereal and wholemeal bread every day. If you feel constipated and the problem is not improving, ask your local pharmacist or GP for advice.

When can I have sex again?

You can resume usual sexual activities when you feel able to without too much pain and discomfort.

How soon can I resume my normal activities?

You will usually need to take one to two weeks off work unless you do heavy manual work where you might need longer.

Because the bulky dressings cover most of your hand, you will need help with jobs such as shopping and cooking for a few days.

When can I start driving again?

Driving your car is not advisable until the bulky bandage is removed, and your wound has healed a little. You may need to wait until your stitches are removed. As a licence holder you are responsible for only driving when you feel confident that you are safe to drive. You will need to be able to do an emergency stop without damage to your wound. You are also advised to check with your insurance company when you will be covered to drive again after your operation. If the condition of your hand prevents you from driving safely, you must not drive.

What should I do if I have any problems or worries about my operation after going home?

In the first 24 hours following your operation, please telephone the following, depending on where you were treated:

York

Day Unit 01904 726010
(between 7.30am and 7.30pm)

or

The nurses on the 01904 726537
Orthopaedic outpatient clinic

Out of hours contact:

Extended Stay Unit 01904 721265
(overnight Mon-Thurs)

Ward 29 (Fri - Sun) 01904 726029

Bridlington

Kent Ward 01262 423110

Or phone your consultant's secretary through the hospital switchboard (01723 368111) to make an appointment.

If you have problems out of hours or more than 24 hours after your operation, please contact your GP or attend your local emergency department if serious.

York emergency department: 01904 726587

Scarborough A&E department: 01723 387111

Follow up

You may be asked to attend a follow up appointment. This will be an outpatient appointment with the hand team. If you are better and feel there is no need to attend, then please cancel the appointment.

If you are expecting a follow up appointment and have not heard from us in two weeks, please contact us:

York: Orthopaedic Appointment desk:

Tel: 01904 726588

Bridlington: Phone your consultant's secretary through the hospital switchboard (01723 368111).

Tell us what you think of this leaflet

We hope that you found this leaflet helpful. If you would like to tell us what you think, please contact:

Jayne Lenighan, Advanced Nurse Practitioner,
Hand Surgery, Orthopaedics, York Hospital, Wigginton
Road, York, YO31 8HE or telephone
01904 725978.

Teaching, training and research

Our Trust is committed to teaching, training and research to support the development of health and healthcare in our community. Healthcare students may observe consultations for this purpose. You can opt out if you do not want students to observe. We may also ask you if you would like to be involved in our research.

Patient Advice and Liaison Service (PALS)

PALS offers impartial advice and assistance to patients, their relatives, friends and carers. We can listen to feedback (positive or negative), answer questions and help resolve any concerns about Trust services.

PALS can be contacted on 01904 726262, or email yhs-tr.patientexperienceteam@nhs.net.

An answer phone is available out of hours.

Leaflets in alternative languages or formats

If you would like this information in a different format, including braille or easy read, or translated into a different language, please speak to a member of staff in the ward or department providing your care.

Patient Information Leaflets can be accessed via the Trust's Patient Information Leaflet website:

www.yorkhospitals.nhs.uk/your-visit/patient-information-leaflets/

Owner	Jayne Lenighan, Advanced Nurse Practitioner Mr Spiros Stavropoulos, Consultant Orthopaedic Surgeon
Date first issued	September 2001
Review Date	November 2027
Version	5 (reissued November 2024)
Approved by	Orthopaedic MDT
Linked to consent form	FYCON49-1 Surgery to release Carpal Tunnel Syndrome V4.3
Document Reference	PIL 213 v5.3
© 2024 York and Scarborough Teaching Hospitals NHS Foundation Trust. All Rights reserved.	