

## Patient information

### **Base of Thumb Replacement**

## Trauma and Orthopaedic Directorate

Royal Liverpool Hospital and Broadgreen Hospital

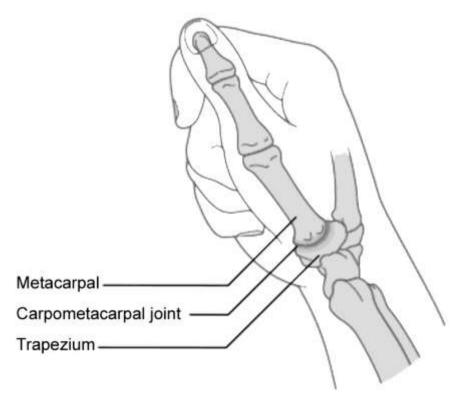
PIF 1995 V1

Your Consultant has advised you that you are suitable to have a base of thumb replacement. The aim of surgery is to ease your pain by replacing the damaged parts of the bones within your thumb joint.

Following surgery it is essential that you attend for regular outpatient hand therapy treatment involving Physiotherapy and Occupational therapy.

During the operation, artificial joint parts are implanted to replace the old surfaces. The artificial joint (prosthesis) comes in various sizes to fit you.

#### How and why is it done?



Base of thumb replacements are done because of arthritis of the carpo-metacarpal joint which is causing you pain. This joint is between the thumb metacarpal (finger) bone and the trapezium (wrist) bone. This is usually as a result of wear and tear of the joint.

Base of thumb replacement surgery is usually carried out under a general anaesthetic and you should expect to return home later the same day as your operation. Very occasionally you might need to stay overnight.

Your surgeon makes an incision (cut) over the side of your thumb joint to allow access to the joint. A thin slice of bone is removed from the end of the metacarpal (finger bone) and the top of the trapezium (wrist bone) and the artificial joint is inserted and the wound is stitched up.

A dressing is applied and your thumb is placed into a protective half plaster cast, from your thumb to wrist level, while still in theatre, which should remain on until we see you in clinic.

## What are the benefits of having a base of thumb replacement?

The expected benefits are to reduce your thumb pain, restore hand function and to give you a functional pinch grip.

#### What are the risks of having a base of thumb replacement?

All surgical procedures carry risks of wound infection and delayed wound healing. You need to keep your arm elevated to prevent swelling and to keep the wound clean and dry. Any infection around the prosthesis is very serious as it causes pain and failure of the new joint. Initially, the infection may be treated with intravenous (drip) or oral antibiotics, rest and elevation of your arm.

However if this treatment is not effective, the new joint sometimes needs to be removed completely. However we do our best to avoid this and the risks are less than 2%.

Damage to the small nerves around the operated area can also happen, which may result in numbness and / or painful scarring.

Sometimes the bones on either side of the thumb can break during surgery. Your hand would be protected for a longer period of time in plaster cast after the surgery. Occasionally, we may no longer be able to do a joint replacement, in which case an alternative will be performed, which will be discussed with you beforehand.

Procedures are often undertaken to try to improve your pain, but this is sometimes unsuccessful and your pain may continue and may even increase.

There is also a risk that you do not produce enough new bone around the artificial joint parts within the joint so they are not solidly fixed into place. With time, there is a risk that the joint replacement will wear out and / or loosen. After four years, the survival rate of the Maia base of thumb replacement prosthesis itself is around 95%.

If you are a smoker, **we strongly advise you to stop smoking** at least one week before your surgery and for the duration of your treatment to help your wound heal and the success of your surgery. Wound healing and production of sufficient bone to fix the prosthesis are greatly affected if you smoke even one cigarette.

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#### Are there any alternative treatments available?

If you decide not to proceed with this surgery, your surgeon may offer you a different type of surgery where the worn trapezium wrist bone is removed (excised), a **trapeziectomy**. This removes the pain but the thumb may shorten slightly as it sinks down into the gap where the wrist bone was. To stop this happening, your surgeon may offer you a **Ligament Reconstruction and Tendon Interposition** (LRTI) during the same operation. This is when the thumb is supported with a tendon from the forearm.

It is also possible to perform an arthrodesis (fusion), where the thumb joint is stiffened, or in milder cases perform an osteotomy, where the bone is broken and reset at a different angle, to redirect the loads through a less worn part of the joint.

Alternatively, your surgeon may offer you non-operative treatment in the form of special splints. The aim is to relieve your symptoms and delay further damage by restricting movement at the affected joint itself.

If your surgeon feels it's appropriate he may refer you for a steroid injection into the joint, placed with the help of an ultrasound or X-ray machine, which may also help relieve your symptoms temporarily.

#### What will happen if I don't have any treatment?

If you decide not to receive treatment, it is likely that your symptoms and condition will continue to worsen.

#### What sort of anaesthetic will be given to me?

You will be given a general anaesthetic or a regional anaesthetic.

A general anaesthetic is drug-induced unconsciousness: an anaesthetist, who is a doctor with specialist training, always provides it. There is a risk of damage to teeth, particularly caps or crowns and veneers. Your anaesthetist will take every care, but occasionally damage can occur.

General anaesthetic can cause side effects and complications. Minor side effects are usually are usually short-lived, including nausea, vomiting and feelings of disorientation. Serious complications are extremely rare and include paralysis and death.

A regional anaesthetic involves being given an injection in the neck or shoulder (nerve block) to numb the area being operated on. You remain conscious and relaxed throughout the surgery but free from any pain. If the nerve block is not effective then you will have to have a different type of anaesthetic, such as general anaesthetic.

The risks of anaesthetic and surgery are lower for those who are undergoing minor surgery, and who are young, fit, active and well.

You will be given an opportunity to discuss anaesthetic options and risks with your anaesthetist before your surgery. For more information, please ask for a copy of the leaflet **"You and Your Anaesthetic"** (PIF 344).

#### If you are worried about any of these risks, please speak to your Consultant or a member of their team before you are due to have this treatment.

#### Getting ready for your operation

You will usually be seen in the pre-operative clinic before you are admitted to hospital.

Here you will have blood tests and sometimes a heart trace and a chest X-ray, if appropriate. You will be assessed to see if you are fit for the anaesthetic.

The staff will ask routine questions about your health, the medicine you take at the moment and any allergies you may have. You will be given instructions on when to stop eating and drinking pre-operatively and provided with details of any of your usual medication you will need to take, or not, on the morning of your surgery.

It may be that certain medication will need to be stopped for a few days before surgery and, if appropriate, you will receive instruction about this also.

You may have already signed a consent form during your clinic consultation and therefore confirmation of your wishes to proceed with surgery will only be required on the day of your operation. If you have not already signed a consent form you will be invited to sign one on the morning of your surgery to say that you understand the procedure, and what the operation involves.

You will also have opportunity to discuss the operation with a doctor. After the operation you will need to see a hand therapist who will give you exercises

#### The day of your operation

• You will come into hospital on the day of your operation.

- Please bring any medication you are taking to hospital with you.
- Please leave all cash and valuables at home. If you need to bring valuables into hospital, these can be sent to General Office for safekeeping. General Office is open between 8.30 and 4.30 Monday to Friday.
- Therefore, if you are discharged outside these times we will not be able to return your property until General Office is open. The Trust does not accept responsibility for items not handed in for safekeeping.
- You will be asked to remove jewellery. Plain bands can be worn but they will need to be taped.
- Please leave body piercings at home.
- False nails and nail polish will also need to be removed.
- If you have not already had one, you will be asked to take a shower and put on a gown and disposable underwear.
- A bracelet with your personal details will be attached to your wrist.
- You may be prescribed some medication to take before your operation by the anaesthetist. A member of the nursing staff will give this to you.
- You will be escorted to theatre and normally you walk into the theatre area, if you are able.
- Your dentures, glasses or hearing aid can stay with you on your journey to the operating theatre.
- When you arrive in the waiting area, a theatre nurse will check your details with you.

#### What should I expect after my operation?

- After your operation you will be kept in the theatre recovery room before being transferred back to your ward. You will return to the ward with a temporary thumb and hand plaster cast, which will have already been applied in theatre.
- This allows for post-operative swelling, which occurs after any operation, whilst also helping to protect your new thumb joint. This may then be changed to a light cast at your clinic appointment, when an X-ray may also be carried out to check the position of your new thumb joint.
- Swelling is normal after any operation however this swelling can be minimised by ensuring that your arm is elevated (raised) so that the level of your hand is higher than your heart level.
- A nurse will check your pulse, blood pressure, breathing rate, evidence of excessive bleeding through the cast and thumb circulation / movement regularly. It is important that if you feel any pain you must tell the nursing staff, who can give you painkillers to help.
- The nursing staff will also advise you when you can start taking sips of water. Anaesthetics can make some people sick. If you feel sick we advise you not to drink until this feeling has passed. The nursing staff may offer you an injection to help this sick feeling go away.
- A post-operative check X-ray may also be carried out prior to discharge, if required.

#### **Going Home**

You may be able to be discharged later on the same day, or the following day following surgery, depending on how comfortable you are and how you recover from the anaesthetic.

#### **Further Appointments**

You will be given an outpatient follow-up appointment nine to fourteen days following your surgery, when you will have your cast and dressing(s) removed, wound checked and sutures (stitches) taken out, if required.

You may then be transferred into a lighter, removable cast, in order to provide continued protection of your operated thumb. During this appointment, you will meet a hand therapist to begin guided hand exercises.

At around six weeks and three months post-op you will be reviewed again by your specialist and have a thumb X-ray carried out at this appointment to be sure that the prosthesis has bonded to the bone.

Further appointments at six months post-op and then yearly, will be arranged so that we can keep you and your new thumb under review. X-rays may be also carried out at these future appointments.

#### Scar massage

Scar massage and stretches will be taught and must be continued for up to 18 months after your surgery (a separate leaflet will be given to you).

It may take six to twelve months for you to feel the full benefit of this surgery.

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#### **Discharge Information**

#### Pain relief and medication

The nursing staff will advise you about painkillers before you leave the hospital. Please tell the nurses what painkilling tablets you have at home. You should elevate your hand to help reduce post-operative swelling and pain.

If following discharge you notice increased pain, smell or oozing from your wound, please contact the hospital.

#### **Returning to work**

You can self-certify for the first seven days of sickness. Before you are discharged, a medical certificate (fit note) may be given by your hospital doctor to cover the expected time off you will need.

Your Consultant will inform you how long you are likely to need off work. This will depend on your occupation.

#### **Further Information**

If you have any queries or concerns following your discharge, please contact the ward or the specialist nurse below.

**Further information** 

### Hand Therapy Unit Royal Liverpool Hospital Tel: 0151 706 2760 Text phone number: 18001 0151 706 2760

#### Hand Therapy Unit Broadgreen Hospital Tel: 0151 282 6276 Text phone number: 18001 0151 282 6276

# Author: Trauma and Orthopaedic Directorate Review Date: March 2020

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