



**SURGERY**

# Ulnar Shortening Osteotomy

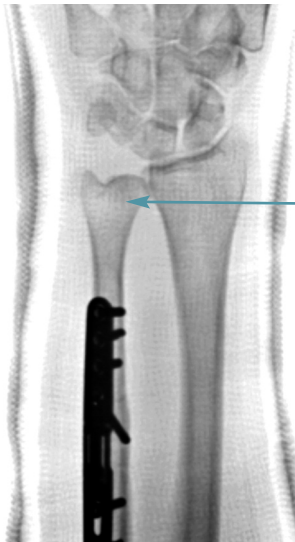
*MRI scan showing ulnar abutment*



Damage in the overloaded lunate bone (paler grey than other bones)

Ulnar longer than radius at the end

*Xrays after shortening osteotomy*



Ulnar now shorter than radius

### *What does this involve?*

This involves cutting the ulnar bone in the forearm, removing a thin slice and then fixing the bone together with a plate and screws (see x-ray on the left). This reduces the amount of load passing through the ulnar side of the wrist when it is used as more of the load passes through the radius bone. The operation also tightens up the supporting soft tissue structures on the ulnar side of the wrist which can make the joint more stable.

### *When is surgery needed?*

This operation is considered when there is painful ulnar abutment but also if there is ongoing pain from a TFCC tear (see relevant 'Conditions we Treat' pages).

All simple interventions such as painkillers, activity modification, aids to help with certain tasks (opening jars etc) and steroid injections are usually tried before surgery is considered. The majority of patients with ulnar sided wrist pain can manage their symptoms in this way without ever needing an operation.

**Type of Operation**

Day Case

**Length of Procedure**

45 mins

**Anaesthesia**

Regional Anaesthetic (arm numbed) and/or General Anaesthetic (asleep)



## 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. In most people the general swelling reduces dramatically in the first week after the operation.

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 nerve most at risk with this operation is a branch supplying skin sensation on the back of the little finger side of your hand. The lost patch of skin sensation from these injuries might be irritating but should not affect how your hand works.

### *Non-union of the cut bone ends*

This has been a problem in the past but modern surgical techniques using a standard plate and jig to make very accurate cuts has reduced this rate to less than 2%. If a non-union does occur it may well require further surgery.

### *Plate irritation*

This is a nuisance and up to 25% of patients will find the plate irritates the overlying tissues in the longer term. This usually settles rapidly with removal of the plate.

### *Residual Discomfort*

This operation is good at relieving pain, but rarely completely eradicates it. One study found an average pain score of 0.75 out of 10 after this surgery, as rated by the patients.

## Post Operative Course Ulnar Shortening Osteotomy

### *Day 1 - 14*

- A dressing and padded bandage with a plaster cast incorporated 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 any joints that are not immobilised immediately to prevent stiffness
- Take painkillers before the anaesthetic wears off and as necessary thereafter

### *Two Weeks*

- An appointment will be made for a wound check, dressing change and a new plaster cast to be fitted

### *Six Weeks*

- The plaster is removed and a check xray taken to see if the bone cut has healed
- Rehabilitation of the wrist and scar massage is started with the help of the Hand Therapists if necessary

### *Three Months*

- Most patients will be back to using the wrist normally by this stage.
- Contact sports can be re-introduced

## Plaster Cast Information

### *Contact your surgical centre if:*

- Your fingers become blue, swollen or numb and tingling with a plaster cast in place
- You see any discharge, wetness or detect any unpleasant smells from around your cast
- The cast becomes cracked, soft, loose or uncomfortable.

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. It is usually at least two months before you should consider driving again. You should discuss it with your insurer if you are considering driving with a splint in place.

### *Time off Work*

This will vary depending on the nature of your job.

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

*These notes are intended as a guide and some of the details may vary depending on your individual circumstance and at the discretion of your surgeon.*