



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



Ulna shorter than radius at the end

Plate and screws holding cut ends of bone together while they heal

What does this involve?

This involves cutting the ulna bone in the forearm, removing a thin slice of the bone and then pulling the two pieces of bone together and fixing them with a plate and screws. This shortens the ulna compared to the radius and so reduces the amount of load going through the ulnar side of the wrist after the operation. The operation also tightens up the supporting soft tissue structures on the ulnar side of the wrist which can make the joint more stable and comfortable.

When is surgery needed?

This operation is considered when there is painful ulnar abutment (see 'Ulnar Abutment') but also if there is ongoing pain from a TFCC tear (see 'TFCC Repairs').

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 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 (whole arm numb) 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

The bone ends not healing together after this surgery can occur in up to 10% of patients. 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

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 and dressing change
- The plaster will be removed and replaced with a removal splint to allow gentle exercises to start
- You should only use your hand for light activities

Six Weeks

- An appointment will be made for a review in clinic. A check x-ray will be taken to see if the bone cut has healed
- If the x-ray is satisfactory you can start to increase how much weight you put through the hand and wrist gradually over the next 6 weeks
- You should gradually stop using the splint at this point

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.