



**SURGERY**

# Extensor Tendon Repairs

## What does this involve?

This involves sewing the two ends of a cut tendon together after they have been cut.

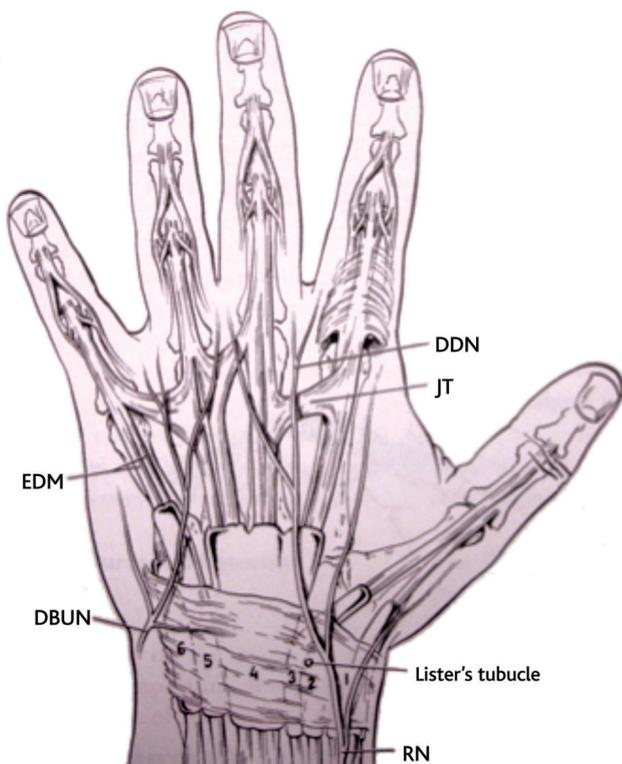
Tendons are attached to muscles which contract and pull the ends of a cut tendon apart. The extensor tendons are also attached to each other on the back of the hand so this tends to limit how far the tendon ends pull apart. The gap in the tendon ends means the tendon will not heal if the ends are not retrieved and put back together again.

Tendons are made out of a fibrous tissue called collagen. This tissue only has a limited blood supply. This means tendons heal very slowly and repairs take a long time to become strong. On the other hand tendons normally glide smoothly when they work. Damage around a tendon will tend to make the tissue layers in the hand stick together. This stops the tendons gliding properly. Getting the right balance between moving the tendon repair and pulling it apart before it is healed is tricky. The

Hand Therapists play a crucial role here. All extensor tendon injuries need supervised rehabilitation with the therapists for at least 6 weeks and often longer. Close adherence to the rehabilitation protocols will ensure you get the best possible result. Generally the results for extensor tendon repairs are better than those for flexor tendon repairs.

## When is this surgery needed?

When the extensor tendons are cut they need to be repaired or the finger will not straighten again properly. Fresh injuries should ideally be repaired within a week of the injury.



## Extensor Tendons in the Fingers

### Key:

DDN – Dorsal Digital Nerve

JT – Juncturae Tendinae – join the tendons to each other

EDM – Extensor Digiti Minimi – little finger extensor tendon

DBUN – Dorsal Branch Ulnar Nerve

RN – Radial Nerve

<b>Type of Operation</b>	Day case
<b>Length of Procedure</b>	0.5 – 2 hours (depending on how many tendons are cut)
<b>Anaesthesia</b>	Regional Anaesthetic (whole arm numb) or (rarely) 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 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.

### *Tendon Adhesions*

Even with your best efforts and the help of the hand therapists extensor tendon repairs show an extreme tendency to stick to the surrounding tissues. Occasionally this requires more surgery later on to try and free up the repair tendon to glide again.

### *Infection*

This is unusual in the hand - less than 1% of cases if the wounds were clean. Minor infections can often be treated with tablet antibiotics. Rarely deep seated infections may require re-admission to hospital, antibiotics into the vein and occasionally more surgery. The risk of infection is increased if your original injury was very dirty and/or if you also have other medical conditions, such as diabetes.

### *Tendon Re-Rupture*

With strong tendon repair techniques and carefully supervised rehabilitation only 1-2% of tendon repairs should fail. This risk increases if rehabilitation regimes are not followed. Re-ruptured tendons and be repaired again but the results of surgery second time around are less good.

### *Nerve Injury*

The nerves supplying the skin on the back of the hand and fingers are most at risk with this surgery. They may already have been damaged when you injured your hand. Usually damage to these nerves will just leave you with a small patch of numbness which should not affect how your hand works.

## Post Operative Course

### *Day 1 - 7*

- A dressing and padded bandage with a plaster cast incorporated is applied after the operation
- Keep the dressings clean and dry
- Keep the arm strictly elevated in a sling or on pillows to reduce swelling
- Take painkillers before the anaesthetic wears off and as necessary thereafter

### *During the First Two Weeks*

- An appointment will be made for you to see the Hand Therapist. They will make you a removable splint and start your rehabilitation.
- The stitches will be removed between 10 and 14 days after the surgery. These arrangements will be made on the day of your surgery.
- Follow up with your surgeon will also be arranged on the day of your surgery

### *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 will be at least eight weeks before you will be able to drive. This will depend on your progress and should be discussed with your therapist.

### *Time off Work*

This will vary depending on the nature of your job. Discuss this with your surgeon.

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