

Extensor tendon (EPL) rupture of the Thumb

What is the EPL tendon?

The long extensor tendon to the thumb is called the Extensor Pollicis Longus (EPL). This tendon straightens the end joint of the thumb and also helps pull the thumb in towards the index finger. The tendon runs around a bony prominence on the back of the wrist called Lister's tubercle. In this area it is confined to a tight tunnel. (See diagram)

Why does it rupture?

This tendon is vulnerable to rupture in the tunnel at the wrist. There are two situations that are associated with rupture. The first is after a fracture of the wrist, in particular where the fracture is not very displaced. The second is in Rheumatoid Arthritis where there is inflammation round the tendon in this area.

What are the signs of rupture?

There may be pain felt at the wrist but not always.
Inability to straighten the end joint of the thumb easily.
Inability to place the hand flat on the table and lift the thumb off the table. (See diagram)

Some patients may be able to feel a "ping" when the tendon ruptures. Many patients simply notice the thumb has an abnormal posture and isn't working as it should be.

Investigations may include an x-ray of the wrist and hand. Ultrasound is often used to confirm the rupture.

What is the treatment?

When this tendon ruptures it is not possible to repair it directly as the tendon ends have frayed. There is therefore usually no urgency to have surgery, unless the surgeon believes that other tendons are vulnerable and surgery is needed to protect those tendons. Some patients find that they can use their thumb and hand satisfactorily despite the tendon being ruptured. However many patients find it awkward and difficult to use the hand and thumb properly.

Surgical treatment is to either place a piece of tendon, taken from elsewhere, between the two ends (Tendon graft) (See diagram) or to take another tendon in the hand and move it to take over the function of the ruptured tendon (Tendon Transfer) (See

diagram). The tendon most often used as a transfer is one of the two extensor tendons to the index finger.

You should discuss the precise details of any planned surgery with your Surgeon.

Following any surgery you are likely to be required to wear a splint to support the graft or transfer. This will be for a period of three to six weeks and your Surgeon and Therapist will explain what programme is being used.