



SURGERY

Volar Plate Release and Flexor tenolysis

What does this involve?

This involves freeing up thickened scar tissue on the front of your finger to allow your joints and tendons to glide more normally.

What is the 'Volar Plate' and a 'Flexor tenolysis'?

The volar plate (or palmar plate) is a piece of smooth fibrocartilage, a bit like what you can feel between the skin of your ear. It sits on the front of each of the joints of your fingers. It normally helps the joint to glide smoothly below it and the flexor tendons to run easily over it.

Flexor tenolysis' just means freeing up the flexor tendons.

When is this surgery needed?

You can see from these diagrams that the soft tissues on the front of each finger are very precisely arranged to allow normal motion. Any injury (stretches, sprains, dislocations, breaks or surgery) will damage the soft tissues to a greater or lesser extent. As the damaged soft tissues heal themselves they have a tendency to thicken up (like a scar you see on your skin as it heals) and become less supple and flexible. Also the usual gliding surfaces become sticky and attach to each other, further limiting movements.

With minor injuries you just notice a slight stiffness for a few weeks that gradually wears off as you use the finger normally.

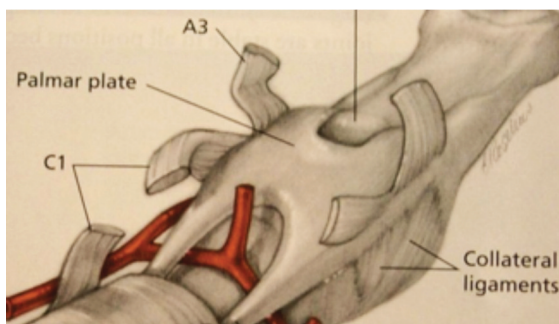
With more significant injuries the stiffness can be a real nuisance. If you don't know to work hard on stretching the scar tissue as it forms or are unable to perform early stretches, for instance whilst you wait for a broken bone to heal up, the scar tissue can become tough. At this stage simple stretching exercised or splints might not be enough to allow normal motion to return. It takes about 6 months for the healing tissue to become so tough that stretches alone are likely to greatly improve the flexibility of the scar.

If all else fails and you are left with a very stiff finger after an injury an operation to try and free up the gliding tissues might be considered.

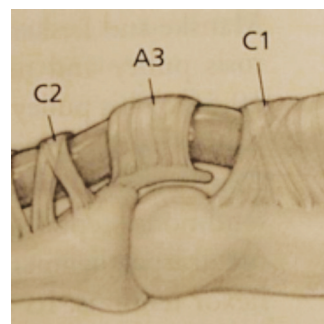
Front view of a finger to show the position of the volar plate from the outside



Front view of volar, or palmar, plate (tendons not shown)



Side view of joint with plate and tendons seen



Type of Operation

Day case

Length of Procedure

0.5 – 1 hour (depending on how much scar tissue needs to be released)

Anaesthesia

Local or Regional Anaesthetic



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 nerves most at risk with these operations are the small branches supplying skin sensation on the back of the thumb and index fingers. The lost patch of skin sensation from these injuries might be irritating but should not affect how your hand works.

Worsening of Carpal Tunnel Syndrome

Patients with evidence of carpal tunnel syndrome before thumb base surgery may find that these symptoms are much worse around the time of the operation, probably because of increased swelling in the area. Many surgeons would, therefore, consider decompressing the carpal tunnel at the same time as the thumb base surgery if you already have some signs of carpal tunnel syndrome.

Residual thumb base discomfort

No operation for thumb base arthritis is perfect. Some patients will still have some discomfort at the base of the thumb with any of the operations described above. In most cases the pre-operative pain is much reduced and the residual symptoms are a manageable nuisance only. Occasionally the symptoms are so marked as to require further surgery.

Reduced pinch grip strength (thumb to index finger)

This is likely to be less than in a normal thumb after these operations but more than before the operation, when the joint was very painful. If your job or hobbies need you to put very heavy loads through your thumb a different operation might be better for you. You should discuss this with your surgeon in clinic.

Post Operative Course

Day 1 – 14

- A dressing and padded bandage with a plaster 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 all the joints that are not immobilised as soon as possible to prevent stiffness
- Take painkillers before the anaesthetic wears off and as necessary thereafter

10 – 14 Days

- An appointment will be made for you to see the hand therapy team
- They will check your wound and make you a removable splint and start further rehabilitation.

3 Months

- By this stage most people will have returned to most activities.
- Hand therapy will continue if needed.

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. For this surgery it can be up to two months before many people feel this confident. The Hand Therapy team will discuss this with you in more detail.

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.