

## Volar Plate Injury

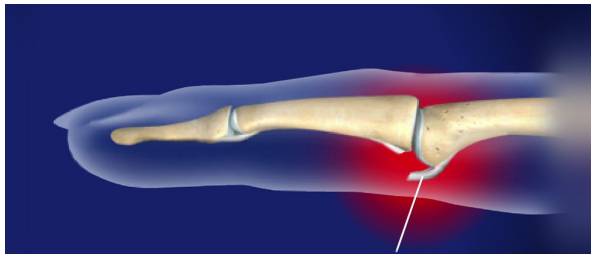
### WHAT IS VOLAR PLATE INJURY AND HOW DOES IT HAPPEN?

The volar plate is a ligament on the inside of the joint in the middle of your finger (called the proximal inter-phalangeal or PIP joint). It attaches to the bones on each side of the joint to stop it from bending too far backwards.

If your finger gets bent backwards some of the ligament fibres can be stretched or torn. If the volar plate gets stretched too far, it can tear completely. This usually happens where it attaches onto the middle bone in your finger.

Sometimes a piece of bone gets pulled off from where the volar plate attaches. This is called an avulsion fracture. This injury often occurs when playing ball sports such as when a ball pushes your finger backwards forcefully.

When your finger has had a volar plate injury it swells up at the PIP joint and can often be bruised. It usually hurts to straighten your finger fully and to make a fist. The PIP joint will often rest in a slightly bent position. Your finger can get stiff quickly which makes it even harder to bend or use normally.



**Torn volar plate**



### WHAT CAN I EXPECT FROM MY REHABILITATION?

Your hand therapist will refer you for an x-ray to check if there is a fracture and to make sure the joint is in a good position.

If you have a mild sprain, taping your finger to the next one (buddy-strapping) can be enough support. If you have a moderate to severe sprain or an avulsion fracture a plastic splint will be made to protect your volar plate from being stretched while it heals. This is called a dorsal blocking splint. The splint keeps your PIP joint still and protected, but allows you to start bending your finger so that it doesn't get stiff.

You will need to wear the plastic dorsal blocking splint for 2-4 weeks. After that you should be able to use buddy straps or a soft splint for most activity. You may need to keep using a plastic splint or taping for sport or heavy tasks until 12 weeks after the injury.

Your hand therapist will tell you how often you need to attend hand therapy depending on how swollen, painful or stiff your finger is. You will be shown exercises to restore full movement and strength and given advice about how to return to normal activity.

It is normal for your PIP joint to remain mildly swollen for many months after this injury. This is because healing soft tissue is thicker than normal tissue.

#### Do

- Wear your splint.
- Follow your hand therapists' instructions about exercises and using your hand.
- Avoid daily tasks that involve any strong gripping or lifting.

#### Do Not

- Remove your splint without guidance from your hand therapist.
- Play ball sports until your hand therapist tells you it is safe.

### HOW IS A VOLAR PLATE TREATED?

#### Hand Therapy

Your hand therapist will assess your finger and ask you questions about what activities effect the pain. Your hand therapy treatment may include

- A splint or strapping to protect your finger so the volar plate can heal.
- Management of your swelling and pain.
- Exercises to restore movement and strength to your finger.
- Advice about returning to work and sport.

#### Surgery

If your injury involves a large avulsion fracture you may need surgery to hold the fracture in place. This is not very common as most of these injuries heal well without surgery. Your hand therapist can review your xray and decide if you may need to be seen by a hand surgeon.



## Volar Plate Injury

### WHAT SHOULD I LOOK OUT FOR?

- It is important to protect the healing ligament from getting overstretched, especially in the first 2-4 weeks. This means you need to stop the finger from being bent backwards by using your splint.
- Tell your hand therapist if your splint or plaster is too tight or uncomfortable, if your splint becomes loose or if you have any numbness or pins and needles.
- If your finger becomes red, swollen and painful you should stop your exercises and book an appointment to see your hand therapist. Elevation and ice may be helpful to reduce swelling.
- If your symptoms are getting worse book an appointment to see your hand therapist.

### WHAT WILL HAPPEN IF I DO NOT HAVE TREATMENT?

If you choose not to have this injury treated, you may keep damaging the volar plate if your finger gets knocked backwards. Your finger may also remain very swollen and then become stiff.

Your finger may get stuck in a bent position and not be able to straighten fully or it may be so unstable that it keeps over-bending in a backwards position which is called a "swan neck" deformity.

### CONTACT DETAILS AND REFERENCES

Your hand therapist is

---

Merivale Hand Clinic (03) 3559775

Orthobullets.com

Rehabilitation of the Hand and Upper Extremity, Sixth Edition. Ed Skirven, Osterman, Fedorczyk, Amadio.