

Volar Plate Ligament Injury of the Finger

"Working with a knowledgeable hand therapist can make the difference between success and failure in complex hand surgical cases. The therapist extends the continuum of our care, as well as functioning as coach and trainer for our patients."

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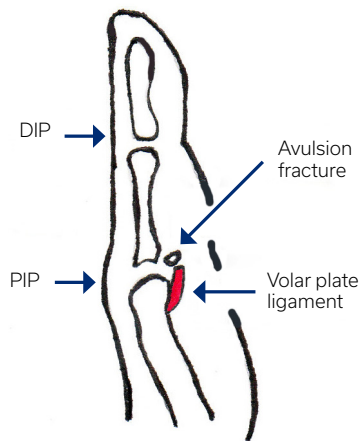


Illustration of a volar plate ligament (red) with an avulsion fracture

What is a volar plate injury?

The volar plate is a ligament on the palm side of the finger made of tough tissue connecting the finger bones together for stability. The most common joint of the finger to have a volar plate injury is the one closest to the knuckle called the proximal interphalangeal joint, or PIP. The volar plate tightens as the PIP joint is straightened and keeps the joint from being bent backward or hyperextended. The volar plate can be sprained, ruptured or avulsed. A sprain occurs when the ligament is stretched or some fibers are torn. A rupture is when the ligament is completely torn. An avulsion is when the ligament is torn away from the bone causing a fracture.

What are the symptoms of a volar plate injury?

Initially, the finger may be painful, swollen and bruised around the PIP joint. Finger motion may be decreased due to pain and swelling. If the PIP joint has been dislocated, it may look out of place.

What are the causes of a volar plate injury?

The most common causes of volar plate injuries are sports or falls when the finger is bent back forcefully. The volar plate can also be injured if the PIP joint is dislocated.



Catching a ball in sports is a common cause of volar plate injury

What is the treatment for a volar plate injury?

Most volar plate injuries can be treated without surgery. A physical examination and X-rays may be taken. Treatment may consist of a short period of protection by wearing an orthosis and early exercise. If the volar plate injury is not stable, surgery might be required.



Example of a finger-protection orthosis for a volar plate injury

What can a hand therapist do for me?

It is important to see a hand therapist after having a volar plate injury. A therapist may make a custom orthosis to protect the finger as it heals. Exercises to prevent stiffness, reduce swelling and improve strength and function of the hand will be taught in therapy.