

Volar Plate Injury

The volar plate is a thick ligament joining two bones within the finger together. These injuries often occur when the finger is bent in the wrong direction further than what it is supposed to be, thus tearing or spraining the ligament.

Often people report this type of injury as a jammed finger. Common causes of this injury are when playing sports with balls where the ball ends up hitting into the finger and pushing it backward. Volar plates are ligaments that separate the space between the PIP joints and the flexor tendons. These types of injuries can be to the ligament alone, or they can be an avulsion fracture where the ligament pulls a small piece of the bone where it is attached. This might also cause damage to the collateral ligament, which is referred to as a finger sprain.

It is worth noting that volar plate injuries can take several months to completely heal. They can also cause a visible bump to appear in the finger, and the finger can be stiff when trying to bend or straighten it fully.

Volar Plate Injury Anatomy

All of the fingers have three distinct bones in them, while the thumb only has two bones. At each one of the joints, the bones are held into place with ligaments. Muscles within the forearm or hand turn into tendons, which attaches the bones to the finger. It is the muscles that move the fingers by pulling the tendons back. All of the bones are attached to the five metacarpal bones making up the body in the hand.

How to Treat a Volar Plate Injury:

1. Immobilization

An x-ray is often used to determine if there is an avulsion fracture or not, as well as whether there is any damage to the soft tissue. If the injury only involves the ligament, it needs to be placed into a finger splint for a week to give the finger the time it needs to heal.

2. Exercises

To prevent any stiffness from occurring in the finger joint, you will need to partake in gentle movement exercises. Don't overdo it, but make sure your finger is being moved to help prevent the joint from tightening up on you.

3. Buddy Taping

Between any exercises, you will want to use buddy taping until the pain is completely gone. Protecting the finger is important during the healing process, otherwise you could cause the injury to get worse and prolong the healing process.

4. Therapy

Hand therapy, physiotherapy and other manual therapies can help to improve mobility and reduce inflammation, as well as promote healing. Finger exercises are likely to be prescribed to help.

5. Surgical Fixation

If there is a fracture present, it might require surgical fixation with pins or wires before it is immobilized. Depending on the injury, the treatment between surgery and immobilization is going to vary for each individual.

Tips:

- Anytime your finger is bent backwards there is a chance that this injury can occur, so make sure to get it checked out.
- Applying ice to the site for 5-10 minutes at a time three to five times per day can help to relieve swelling.
- Follow the exercises and advice from your physio. You will need to do daily exercises to help improve the mobility to the finger and prevent stiffness.