Volar plate injury

Other names: sprain of the PIP joint, finger ligament injury
Read time: 4 minutes

On this page

- What is volar plate injury?
- Causes of volar plate injury
- Symptoms of volar plate injury
- Diagnosis of volar plate injury
- Treatment of volar plate injury
- Long-term outcome of volar plate injury
- FAQs

What is volar plate injury?

A finger volar plate injury happens when a strong band of tissue called the volar plate gets stretched, torn or pulls off a small piece of bone (Figure 1). This band sits on the palm side of the joint in the middle of the finger (called the PIP joint). It helps stop your finger bending too far backwards. When it is injured, the joint can become painful, swollen and stiff.

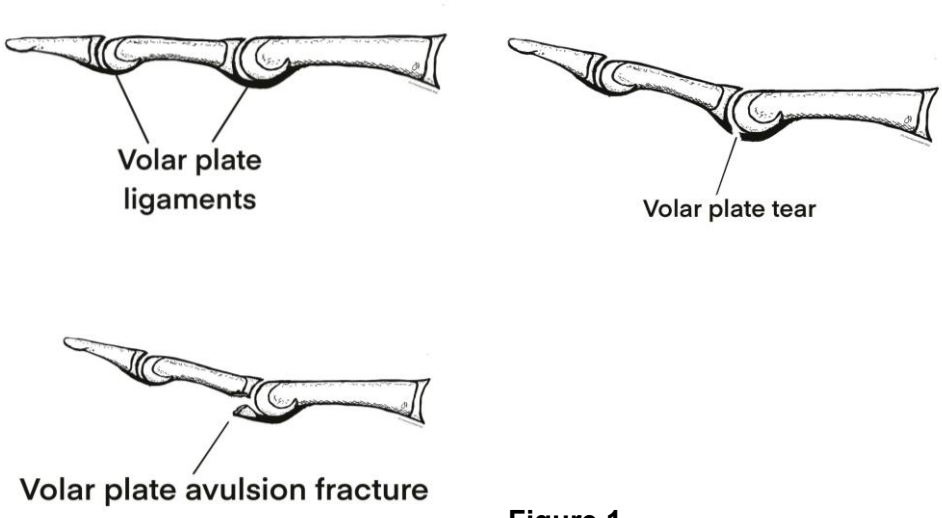


Figure 1.

Causes of volar plate injury

This injury usually happens when the finger is forced backwards too far.

Common causes include:

- catching a ball during sports
- a fall onto the hand
- a sudden knock to the finger
- fingers getting caught or bent awkwardly

When to seek medical attention for volar plate injury

Get medical advice if:

- your finger looks bent out of shape
- you cannot move the finger properly
- pain or swelling is severe
- the finger feels unstable or dislocated
- symptoms are not improving after a few days

Go to urgent care immediately if the finger is badly deformed or very painful.

Symptoms of volar plate injury

You may notice:

- pain at the middle joint of the finger
- swelling and bruising
- stiffness or difficulty bending the finger
- tenderness when you touch the joint
- the finger may look slightly bent or crooked

Diagnosis of volar plate injury

A healthcare professional will:

- ask how the injury happened
- examine your finger and movement

You may also need:

- an X-ray to check for a small fracture (break in the bone)

This is usually done in A&E or a minor injuries unit.

Treatment of volar plate injury

Most injuries get better without surgery. Treatment aims to reduce pain, protect the joint, and restore movement. During the early stage it is important to move your finger regularly to reduce swelling and increase your movement.

Self help for volar plate injury

Immediately after the injury you can help your recovery by:

- resting the finger
- using ice for 10–15 minutes to reduce swelling
- keeping the hand raised when possible
- taking simple pain relief like paracetamol if needed

Your finger may be supported for the first two or three weeks with:

- strapping to a neighbouring finger (“buddy strapping”)

  or

- placement in a small splint

Benefits: this reduces pain and protects healing
Risks: stiffness of your joint if you do not move the finger gently

---

Medical treatment of volar plate injury

These injuries are treated without surgery using exercises and support for the finger (strapping or splinting). A healthcare professional will:

- apply the strapping or splint
- advise on safe exercises
- arrange follow-up if needed

Benefits: supports healing and prevents further injury
Risks: stiffness if the finger is kept still for too long

Your injured finger is most often strapped to the next-door finger (‘neighbour strapping’ or ‘buddy strapping’) (Figure 2). Sometimes a splint is fitted on the back of the finger instead (Figure 3). Both treatments help to protect the finger while it heals. This part of the treatment usually stays in place for 3 weeks.



Figure 2.

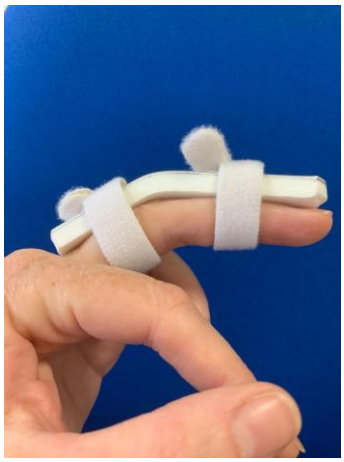


Figure 3.

During the early stage it is important to move your finger regularly to reduce swelling and increase your movement. This means carefully following finger exercises given by your healthcare team. A hand therapist or physiotherapist may continue the treatment of your injury.

Hand therapy

Hand exercises are important once pain settles. These may include:

- gentle bending and straightening of the finger
- grip exercises

A hand therapist may guide you if needed.

Benefits: improves movement and strength
Risks: mild discomfort at first, but this should improve

Buddy strapping based exercise

Exercise 1

Bend your top two knuckles into a hook position keeping the big knuckles straight. Return your fingers to an open position. Repeat 10 times 4 to 6 times/day.



Exercise 2

Bend your fingers to the palm to make a full fist. Straighten your fingers back to the splint. Repeat 10 times 4 to 6 times/day. All movements should be done within comfort.



Splint based exercise

Exercise 1

Loosen the top Velcro strap but retain the bottom strap around the base of your finger. Bend your fingertips towards your palm to try and make a hook. Straighten your fingers back to the splint. Repeat 10 times 4 to 6 times/day.



Exercise 2

Retain the bottom strap around the base of your finger as above. Bend the fingers to the palm to make a full fist. Straighten your fingers back to the splint. Repeat 10 times 4 to 6 times/day.



Long-term outcome of volar plate injury

These injuries usually heal well and your finger returns to good use over the course of a few months. Your healthcare team will give specific advice. You may:

- Return to light everyday activities with your strapping or splint on, avoiding heavy activities that cause pain.
- Return to work with the strapping or splint on if the type of job allows.
- Avoid sporting activities while your finger heals.
- Return to driving when you feel safe to control the vehicle. As the driver, you are responsible to drive safely.

However:

- Your injured finger can take longer than expected to heal. This means some mild swelling and some mild pain may be present into the longer term
- Your finger is sometimes sensitive to touch or cold for one or two years.

Less often, stiffness in your finger joint can become a long term problem. Early movement helps to prevent this. **If your finger movement is becoming worse six weeks after the injury, please contact your healthcare provider.**.

FAQs

1. Can I still use my finger?
Yes, but avoid heavy use or sports until it improves.

2. How long should I wear a splint or strapping?
Usually 2 to 3 weeks, depending on the injury.

3. Will my finger go back to normal?
Most fingers recover well, but slight swelling or stiffness can be longer term.

4. Can I play sports again?
Yes, once pain has settled and movement has returned. Your healthcare provider will guide you.

5. Do I need physiotherapy?
Many people recover with simple exercises, but some benefit from hand therapy.

6. What happens if I do not treat it?
The finger may stay stiff, painful, or unstable.

7. What should I do if my finger is becoming more stiff months after the injury?

The exercises for your finger are very important, so continue these. If the stiffness is worsening, seek advice from your healthcare provider

Sources

This information was adapted from guidance by:

- NHS (UK)
- National Institute for Health and Care Excellence (NICE)
- British Society for Surgery of the Hand (BSSH)
- Getting it Right First Time (GIRFT)