

## Orthopaedic Department

# Proximal Interphalangeal Joint (PIPJ) Volar Plate Injury

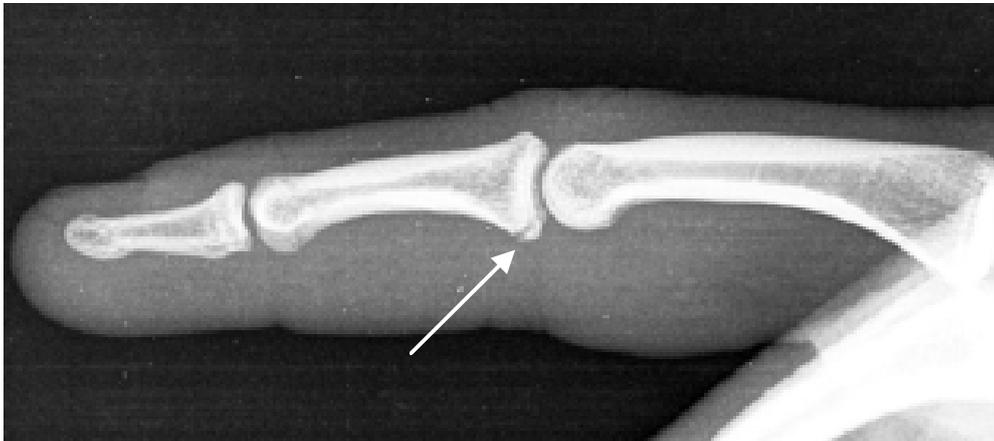
## Patient Information Leaflet

## 1. What is a PIPJ Volar Plate Injury?

The **Proximal Interphalangeal Joint (PIPJ)** is the middle joint of your finger. It is a hinge joint that allows your finger to bend and straighten.

The **Volar Plate** is a thick, strong ligament (fibrocartilage) located on the palm side of this joint. Its main job is to prevent the finger from bending too far backwards (hyperextension) and to keep the joint stable.

A volar plate injury occurs when the finger is forced backwards into hyperextension. This can cause the ligament to stretch, tear, or even pull a small piece of bone away from the middle bone of the finger. This specific type of fracture is called an *avulsion fracture*.



## 2. Common Causes of Injury

**Ball Sports:** Very common in basketball, netball, football, or cricket when a ball strikes the end of an outstretched finger.

**Falls:** Landing on an outstretched hand.

**Everyday Activities:** Catching the finger on a door handle or furniture.

Any incident where the finger is forcibly bent backwards.

### 3. Signs and Symptoms

**Pain:** Located principally on the palm side of the middle joint.

**Swelling:** The joint often becomes swollen and may appear "fat" or bruised.

**Stiffness:** Difficulty bending or fully straightening the finger.

**Tenderness:** Pain when touching the palm side of the joint.

**Deformity:** In severe cases, the joint may look crooked.

### 4. Treatment and Management Plan

Treatment depends on the severity of the injury and whether a fracture is present.

#### A. Soft Tissue Injury (Ligament sprain only) or small avulsion injury

- **Buddy Strapping:** The injured finger is taped to a neighbouring healthy finger for support. This is typically done for 3–6 weeks.
- **Early Movement:** It is crucial to start moving the finger early to prevent stiffness.
- **Ice & Elevation:** To manage swelling and pain.

#### B. Stable Bony Injury (Small fracture, <30-40% joint surface)

- **Extension-Blocking Splint:** You may be fitted with a splint that holds the finger slightly bent (20–30 degrees). This prevents the finger from straightening fully, which protects the healing bone/ligament.
- **Duration:** The splint is usually worn for 4–6 weeks.
- **Exercises:** Hand therapy exercises are started within the splint limits.

#### C. Unstable Bony Injury (Large fracture, >40% joint surface)

- These injuries are less common but more severe.
- They may require **surgery** to fix the bone fragments with pins or screws, or to repair the volar plate.
- Post-surgical rehabilitation will be guided by your surgeon and hand therapist.

### 5. Rehabilitation Exercises

**Important: DO NOT force your finger. Work within a comfortable range. Exercises should get easier over time. If pain increases significantly, stop and contact the hospital.**

## Week 1 - 2

**Protection:** Wear your splint or buddy strap as directed.

### **Exercises (Every 1-2 hours, 5-10 reps):**

- **Hook Fist:** Keep your large knuckles straight and bend only the middle and top joints of your fingers.
- **Full Fist:** Gently bend all finger joints to make a loose fist.
- **Active Movement:** Use your other hand to support the finger below the injured joint and gently bend and straighten the tip.

## Week 2 - 4

**Protection:** Continue splinting/strapping as advised.

### **Progression:**

- Continue previous exercises.
- **Assisted Stretches:** Use your uninjured hand to gently help bend the injured finger towards the palm. Hold for 10-60 seconds. Do not force it.

## Week 4 - 6

### **Activity:**

You may begin light activities and light work tasks (e.g., typing, eating).

### **Exercises:**

- Start gentle resistance exercises using a soft stress ball, putty, or a sponge.
- Night splinting may still be required depending on your specific injury.

## Week 6 - 12

### **Return to Function:**

- Gradually increase resistance in exercises.
- Return to normal work activities.
- **Sports:** Return to ball sports is usually permitted after 6–12 weeks when the finger feels strong and pain-free. Taping for protection during sports is often recommended.

## 6. Expected Outcomes

Most volar plate injuries heal well within **6 to 12 weeks**, but the final result often depends on how well you follow the exercise program.

- **Swelling:** It is completely normal for the joint to remain thickened and swollen for 12 to 18 months. This is often permanent but does not usually affect function.
- **Stiffness:** Some mild stiffness or loss of full extension (straightening) is common.
- **Strength:** Full grip strength typically returns around 3 months post-injury.
- **Sensitivity:** The joint may be sensitive to cold weather or knocks for several months.

## 7. Potential Complications

If not treated properly or if exercises are neglected, complications can occur:

- **Flexion Contracture:** The finger becomes stuck in a bent position and cannot straighten.
- **Swan Neck Deformity:** The middle joint bends backwards (hyperextends) while the end joint bends forwards. This can cause functional problems.
- **Chronic Pain or Instability:** The joint may feel loose or painful with heavy gripping.

## 8. Frequently Asked Questions

**Q: Can I work?**

**A: Yes**, generally you can perform light duties as long as the pain allows and you can wear your splint/strapping. Avoid heavy manual work initially.

**Q: Can I drive?**

**A:** You can drive only when you feel safe to control the vehicle and can perform an emergency stop without pain. You are responsible for this decision. Driving with a splint is generally not recommended.

**Q: Why is my finger still swollen?**

**A:** Scar tissue is thicker than normal tissue. The finger joint will likely remain larger than it was before the injury. This is cosmetic and usually improves slowly over 1-2 years.

## 9. When to Seek Further Help

Please get in touch with the department immediately if:

- Pain is getting worse rather than improving.
- You are physically unable to perform your exercises due to pain.
- Your finger stiffness is getting worse after 6 weeks.
- Your splint is broken, rubbing, or causing skin soreness.
- You notice signs of infection (redness, heat, increasing swelling, or discharge).

Nursing Staff	Opening Times
Orthopaedic Department	Monday - Friday
Huddersfield Royal Infirmary	09.00am - 16.30pm
Telephone No 01484 342559	

Accident & Emergency	Out of Hours
Halifax	
Telephone No. 01422 223842	
or	
Huddersfield	
Telephone No. 01484 342020	

**If you have any comments about this leaflet or the service you have received you can contact :**

Nursing Staff  
Treatment Room  
Orthopaedic Department

Huddersfield Royal Infirmary  
Telephone No. 01484 342559

[www.cht.nhs.uk](http://www.cht.nhs.uk)

**If you would like this information in another format or language contact the above.**

Potřebujete-li tyto informace v jiném formátu nebo jazyce, obraťte se prosím na výše uvedené oddělení

Jeżeli są Państwo zainteresowani otrzymaniem tych informacji w innym formacie lub wersji językowej, prosimy skontaktować się z nami, korzystając z ww. danych kontaktowych

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ਤਾਂ ਕਿਰਪਾ ਕਰਕੇ ਉਪਰੋਕਤ ਵਿਭਾਗ ਵਿੱਚ ਸਾਡੇ ਨਾਲ ਸੰਪਰਕ ਕਰੋ।

اگر آپ کو یہ معلومات کسی اور فارمیٹ کی زبان میں درکار ہوں، تو  
برائے مہربانی مندرجہ بالا شعبے میں ہم سے رابطہ کریں۔

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المذكور أعلاه"