

About Your Injury

You have been told you may have a **scaphoid fracture**. The scaphoid is a small bone on the thumb side of your wrist. It is the most commonly broken wrist bone, accounting for around 70% of all carpal fractures, and typically affects young active adults.

Scaphoid fractures usually happen when you fall onto an outstretched hand. The bone can be very difficult to see on a standard X-ray — up to **1 in 5 fractures** are missed on the first X-ray taken.

Your Symptoms

- Pain and tenderness in the 'anatomical snuffbox' — the hollow at the base of your thumb on the back of your wrist
- Swelling on the thumb side of the wrist
- Pain when you grip, pinch, or put weight through the wrist
- Stiffness or reduced movement at the wrist

■ *It is easy to mistake a scaphoid fracture for a simple wrist sprain. If you have ongoing wrist pain after a fall, always seek specialist review — untreated fractures can lead to serious long-term problems.*

Investigations You May Need

Scaphoid X-rays (4 views)

The first test ordered. The BSSH recommends a dedicated series of at least **four X-ray views** (posteroanterior, lateral, semi-prone, and elongated scaphoid view) to reduce the chance of missing a fracture.

MRI Scan

The best test for detecting a fracture not visible on X-ray. The BSSH recommends **urgent MRI** if your X-rays are normal but a fracture is still suspected — ideally arranged **within 1 week**. MRI is sensitive and does not use radiation.

CT Scan

Used to assess the exact position and displacement of a confirmed fracture, and to monitor healing. The BSSH recommends CT at **6–8 weeks** to check whether the bone is uniting satisfactorily.

■ **BSSH Standard (April 2024):** All patients with suspected scaphoid fracture should have scaphoid radiographs from at least 4 angles. If X-ray is negative but clinical suspicion is high, urgent MRI should be requested and the patient reviewed within 1 week.

Source: BSSH Trauma Standards — Scaphoid Fractures (April 2024 / GIRFT Pathway)

Types of Scaphoid Fracture

Where the fracture sits within the bone matters greatly — it determines your treatment and risk of complications.

Waist fractures (~70%)

The most common location. Many heal well with casting. Fractures displaced by more than 2 mm need surgery.

Proximal pole fractures (~20%)

Near the wrist joint. The blood supply here is poor because it enters the bone at the far end. **Any displacement at the proximal pole is an indication for surgery** due to the high risk of the bone dying (avascular necrosis).

Distal pole / tubercle fractures (~10%)

Near the thumb. The blood supply is good and these heal reliably. Treated with 4–6 weeks in a splint followed by patient-initiated follow-up.

■ **Important: Proximal pole fractures carry the highest risk of complications. Any displacement here requires urgent surgical assessment within 2 weeks of injury (BSSH 2024).**

Your doctor or specialist will use your X-rays, MRI, and/or CT to classify your fracture and plan the right treatment.

Non-Surgical Treatment (Casting)

Many scaphoid fractures heal well without an operation. A **below-elbow cast** (covering the thumb) is applied to hold the wrist still while the bone heals. This is the recommended first treatment for:

- Undisplaced or minimally displaced waist fractures (<2 mm)
- Distal pole / tubercle fractures
- Patients who prefer not to have surgery

How long will I be in a cast?

- **6–10 weeks** for most undisplaced waist fractures
- **4–6 weeks** for tubercle fractures, then discharged
- CT scan at **6–8 weeks** to check healing progress

■ **The SWIFTT Trial (Lancet, 2020)** — the largest RCT of its kind, run across 31 hospitals in England and Wales — found **no significant difference in patient outcomes at 52 weeks** between immediate surgery and cast treatment for minimally displaced scaphoid waist fractures. Cast treatment is the recommended first-line approach for eligible fractures.

Dias J et al. SWIFTT Trial. Lancet 2020; 396(10248):390–401

Surgical Treatment

Surgery involves placing a small titanium screw inside the bone to hold the fracture together while it heals. The screw is **fully buried within the bone** and does not need to be removed.

Surgery is recommended when:

- The fracture is displaced by **more than 2 mm** at the waist
- There is **any displacement at the proximal pole**
- There is an associated perilunate injury
- The fracture has been present for more than 4 weeks without healing
- You are an athlete or manual worker needing an earlier return to activity

What does surgery involve?

- Usually performed as a **day case** — you go home the same day
- Done under general or regional (nerve block) anaesthetic
- A small stab incision (percutaneous) or larger incision if needed
- A post-operative cast or splint for 4–6 weeks
- Wound review at 10–14 days

■ **The BSSH (April 2024)** recommends surgical fixation within **2 weeks of injury** for displaced waist fractures (>2 mm) and all proximal pole fractures.

BSSH Trauma Standards: Scaphoid Fractures, April 2024

Treatment of Suspected Fractures

If your X-ray does not show a clear fracture but your wrist is very painful and tender, your clinician may still treat you as though you have a fracture while awaiting further imaging.

If your hospital has an MRI pathway:

You may receive a patient information leaflet and a supportive splint and be reviewed once your MRI result is available — usually within 1 week.

If no same-day MRI is available:

You may be placed in a below-elbow backslab and referred to the fracture clinic to be seen **within 7 days**, where further imaging will be arranged.

■ **The SUSPECT Trial (2023)** found that for patients with suspected scaphoid fracture and **non-concerning initial X-rays**, a supportive bandage with early specialist review gave outcomes no worse than routine casting. Some hospitals are now adopting this approach.

SUSPECT Trial. J Hand Surg Eur Vol. 2023

Treatment for Non-union

If the bone fails to heal (non-union), surgery with a **bone graft** is usually needed. Bone is taken from your forearm or pelvis and used to fill the fracture gap. In severe cases involving bone death (avascular necrosis), a **vascularised graft** — with its own blood supply — may be used.

Your Recovery Timeline

Timeframe	What to Expect
0–2 weeks	Immobilise; keep hand elevated above heart level to reduce swelling
Within 7 days	Fracture clinic review (BSSH standard); further imaging if needed
Within 2 weeks	Surgical fixation if displaced fracture / proximal pole (BSSH 2024)
6–8 weeks	CT scan to assess whether fracture is uniting (BSSH standard)
8–12 weeks	Cast removal for conservatively managed fractures; physiotherapy begins
12–16 weeks	Gradual return to light work and non-contact sport
4–6 months	Return to contact sport and heavy manual activities
Up to 1 year	Full grip strength and function may take up to 12 months

Hand Therapy

A hand therapist will guide your recovery after your cast comes off:

- Wrist flexion, extension, and rotation exercises
- Progressive grip and pinch strengthening
- Scar massage and desensitisation (if surgical)
- Tailored programme for return to sport or manual work

Possible Complications

Non-union

The fracture fails to heal. This occurs in approximately **10–12%** of conservatively treated fractures. It is more common in proximal pole fractures, smokers, and cases where diagnosis was delayed. Non-union almost always leads to arthritis if untreated. Further surgery including bone grafting is usually required.

Avascular Necrosis (AVN)

The blood supply to part of the bone is lost, causing it to die. This affects **15–50% of proximal pole fractures**. The bone eventually collapses, causing pain and arthritis. May require complex reconstructive surgery or partial wrist fusion.

Scaphoid Non-union Advanced Collapse (SNAC Wrist)

The long-term consequence of untreated non-union: progressive wrist arthritis causing pain, weakness, and reduced movement. Avoided by prompt diagnosis and treatment.

Surgical Risks

- Wound infection (superficial or deep)
- Nerve or blood vessel injury
- Screw malposition or prominence
- Stiffness or complex regional pain syndrome (CRPS)
- Anaesthetic complications

■ **Smoking significantly increases the risk of non-union. Please speak to your doctor or pharmacist about stopping smoking during your recovery.**

Seek Help Urgently If...

Please contact your fracture clinic or attend A&E immediately if you experience:

- Pain that is getting **worse**, not better
- Numbness, tingling, or colour change in your fingers
- Wound redness, increasing swelling, discharge, or fever
- Your cast feels too tight, has cracked, or become wet
- Any concern about your wrist or wound

Your Contacts

Service	Contact / Number
Fracture Clinic	_____
Hand Therapy Unit	_____
Pre-assessment Nurse	_____
Surgical Ward	_____
Emergency Dept (A&E)	_____

Further Information

- British Society for Surgery of the Hand: www.bssh.ac.uk
- NHS patient information: www.nhs.uk

This leaflet is based on the BSSH Trauma Standards: Scaphoid Fractures (April 2024), the GIRFT pathway, the SWIFT Trial (Lancet 2020), and the SUSPECT Trial (2023). It is intended for patient information only. Individual treatment decisions rest with your clinical team.

