



FINGER JOINT FUSION

Patient Information, Consent and Recovery Guide



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*This leaflet is designed to support, not replace, your conversation with Miss Edwards.
There is a list of questions you may find it useful to ask later in this leaflet.*

Written by Miss Alison Edwards, Consultant Hand Surgeon. Published: September 2026. Next review due: September 2028.

About the condition

Fusion joins the two bones of a finger joint together so that they heal into one solid piece of bone and the joint no longer moves. It is used for a joint that has been damaged — most often by arthritis, but sometimes by injury, deformity or instability — and is painful or no longer working properly.

Two joints are commonly fused:

- The **DIP joint** — the end joint of the finger, nearest the nail. This is the joint most often fused.
- The **PIP joint** — the middle joint of the finger.

The equivalent joint in the thumb, the IP joint, is treated in the same way.

Typical symptoms that lead to considering fusion include:

- Pain in the joint, particularly with gripping, pinching and fine tasks
- Bony swelling and enlargement around the joint
- A joint that is bent, drifting sideways, or unstable and gives way
- Stiffness and loss of useful function
- At the end joint, a mucous cyst over the joint or a ridge or groove in the nail

Diagnosis is made from your history and examination together with X-rays, which show how much of the joint surface has been lost and how the finger is aligned.

Your treatment options

You have a genuine choice here, and it is important you understand all of the options, including doing nothing, before deciding.

Doing nothing (watchful waiting) is a reasonable choice. Arthritis in a finger joint is not dangerous, and many people manage well for years. Symptoms often fluctuate, and for some people the pain lessens as the joint stiffens up naturally. The trade-off is that

pain and deformity may continue or worsen, and a finger that drifts further out of line can become harder to correct later.

Non-surgical treatment is usually tried first: painkillers or anti-inflammatory medication, splinting, activity modification, hand therapy, and steroid injection into the joint.

Joint replacement is the main surgical alternative and preserves movement at the joint. It suits some PIP joints well, particularly in the ring and little fingers where a strong sideways pinch is less important. It is not generally used at the end joint of the finger, where there is very little movement to preserve and the bone is small. Movement after replacement is rarely restored fully to normal, and the implant can loosen, break or need revising.

Fusion gives up the movement at that joint in exchange for reliable pain relief and a strong, stable, well-aligned finger, with no implant that can wear out. It is often the better choice for the end joint, for an index finger that has to take a firm pinch, and for people who need strength or who work with their hands.

The surgery — what it involves

An incision is made over the back of the joint. The worn joint surfaces are removed and the bone ends are shaped so that they sit closely together, with the finger set in a slightly bent position — the position that will be most useful to you for gripping and pinching. The bones are then held firmly together while they unite.

Miss Edwards holds the bones with a **headless compression screw**, at both the DIP and the PIP joint. The screw is buried completely inside the bone, so there is nothing on the surface and it does not normally need to be removed.

Bone takes time to unite, so the fusion is not immediate — it typically becomes solid over about three months.

The operation can be carried out under **local anaesthetic**, and takes around 45 minutes to an hour.

Benefits of surgery

- **Reliable pain relief** — this is the most predictable outcome of the operation
- **Correction of deformity** — the finger is straightened and set in a useful position
- **A strong, stable joint** that will not give way, with good pinch and grip
- **No implant to wear out** — once the bone has united, the result is permanent
- Most people are satisfied with the result

The trade-off is straightforward and worth being clear about: **the joint will not bend again**. Most people adapt to this quickly, because the neighbouring joints take up the movement and because the joint being fused was usually painful and stiff already.

Risks and possible complications

As with any surgery, there are risks:

- **Infection** at the wound

- **Problems with wound healing**, particularly over the back of a small joint where the skin is thin
- **Non-union** — the bones failing to unite. This is uncommon, occurring in around 5% of cases with headless compression screw fixation (Kocak et al., 2011), although reported rates across published series range from none to around 15%. When it happens it usually needs further surgery. Smoking makes complications after this operation significantly more likely, and stopping before surgery is strongly advised (Runkel et al., 2022).
- **Symptomatic metalwork** — in around 8% of cases the screw is felt under the skin or at the fingertip and occasionally needs removing (Kocak et al., 2011)
- **Injury to nerves, blood vessels or tendons** near the joint
- **Nail deformity**, when the joint fused is the end joint of the finger
- **Stiffness** in the neighbouring joints of the finger
- **Scar tenderness**
- **Complex regional pain syndrome (CRPS)** — uncommon but recognised

Everyone's circumstances are different, and something that seems minor to one person may matter a great deal to another. Please tell Miss Edwards about anything on this list — or anything else — that particularly concerns you, so your discussion covers what matters most to you personally.

Your consent

Before you have surgery, Miss Edwards wants to be sure you have been able to make a properly informed decision, in line with GMC guidance on decision making and consent. This means:

- You have the right to be as involved as you want in decisions about your care, and to be given the time and support you need to understand your options.
- The alternatives — including injection, splinting, joint replacement, and doing nothing — and their benefits and risks, should have been discussed with you.
- Miss Edwards will try to understand what matters to you personally, not just the clinical facts.
- You can ask questions at any point, and you are welcome to bring someone with you to appointments.
- **You can change your mind at any time** — including after signing a consent form — right up until the moment surgery begins, without needing to give a reason.
- Your discussion and decision will be recorded in your notes, and you will be asked to sign a consent form on the day of surgery.
- You have the right to seek a second opinion if you would like one.

Questions you may want to ask your surgeon

It's easy to forget questions in the moment, so you may find some of these useful:

- Would fusion or replacement be better for this particular finger, and why?
- What position will the finger be fused in, and how will that affect what I can do?
- What will I not be able to do afterwards that I can do now?
- How likely is it that the bones won't unite, and what happens if they don't?

- Will I be able to feel the screw, and might it need taking out later?
- How long will I be off work, given what my job involves?

On the day of surgery

- The operation is a day case and can be done under local anaesthetic, in which case you do not need to starve beforehand and can eat, drink and take your usual medications as normal. If you are having a different anaesthetic the hospital will send you fasting instructions, which you should follow carefully.
- Do let Miss Edwards know in advance if you take blood-thinning medication.
- Remove rings and nail varnish (including false nails) from the operated hand before you arrive. You may be asked to change into a gown.
- Your hand will be cleaned with antiseptic and covered with a sterile drape before starting.
- You will have a dressing and a protective splint on the finger afterwards.
- Miss Edwards recommends that you arrange for somebody to drive you home on the day.

Recovery and rehabilitation

The first two weeks

Your dressing and splint stay in place for 10–14 days, protecting the finger while the wound heals. Keep them dry. Keep your hand elevated above heart level as much as you can — this is the most effective thing you can do to limit swelling. Move the other fingers, your wrist and your elbow freely to prevent them stiffening up. Paracetamol and ibuprofen are usually enough for pain relief.

2–6 weeks

The stitches come out at 10–14 days. The fused joint still needs protecting while the bone unites, but you can begin using the hand for light everyday tasks. Work on keeping the neighbouring joints moving — this matters, because it is those joints that will take over the movement the fused joint has given up. Once the wound has healed, begin scar management: massage the scar with an unscented moisturiser, vitamin E oil or silicone gel — small circles over the scar, then strokes along and across it — for a few minutes, 2–3 times a day, and keep it out of the sun. You can usually take the splint off at around 3–4 weeks.

6–12 weeks

The fusion typically becomes solid at around three months, and an X-ray is often used to confirm this. As it does, you can build up gripping and pinching, increasing gradually and stopping short of pain. Avoid heavy lifting and forceful gripping until Miss Edwards has confirmed the bone has united.

3–12 months

Once the fusion is solid, the finger is permanently strong and stable. Swelling around the joint and tenderness of the scar continue to settle over several months, and the final result is usually apparent somewhere between 6 and 12 months.

Most people are back to desk-based work at 2–3 weeks and driving at 3–4 weeks. Manual work usually takes 6–8 weeks, depending on what your job involves.

When to seek help

Contact the clinic promptly if you notice:

- Increasing redness, swelling, warmth, discharge or fever (signs of infection) — please contact us before anyone starts you on antibiotics
- Pain that is uncontrolled by the painkillers you've been given
- New numbness or tingling in the finger
- Movement returning at the fused joint, or a sudden change in the shape of the finger
- A feeling that you are not recovering at the pace described here — we can arrange for you to see the hand therapist or Miss Edwards quickly

Summary Table: Recovery Milestones

Time after surgery	What to expect
First 2 weeks	Dressing and splint on, kept dry; hand elevated; other fingers, wrist and elbow kept moving
2–6 weeks	Stitches out at 10–14 days; light everyday use; scar massage begins; desk work at 2–3 weeks, driving at 3–4 weeks
6–12 weeks	Bone unites, usually by about 3 months and confirmed on X-ray; gripping built up gradually; manual work at 6–8 weeks
3–12 months	Fusion solid and permanent; swelling and scar tenderness settle; final result apparent

Contact details

Mendip Hand Clinic Practice Plus Group Hospital, Old Wells Road, Shepton Mallet, Somerset BA4 4LP

Bookings: 0330 818 8981

If you think anything in this leaflet is unclear or needs updating, please tell us using the contact details above. For further background on this condition, the British Society for Surgery of the Hand also publishes patient information at bssh.ac.uk/patients.

A final note

This leaflet is general information and does not replace individual advice. Your own risks, alternatives and expected recovery should be discussed personally with Miss Edwards, in line with GMC guidance on decision making and consent.

References

Kocak E, Carruthers KH, Kobus RJ. Distal interphalangeal joint arthrodesis with the Herbert headless compression screw: outcomes and complications in 64 consecutively treated joints. *Hand* (New York), 2011;6(1):56–59.

Runkel A, Bonaventura B, Sundermann B, Zajonc H, Eisenhardt S, Leibig N. Risk factors in distal interphalangeal joint arthrodesis in the hand: a retrospective study of 173 cases. *Journal of Hand Surgery (European Volume)*, 2022.

Note: the published figures for non-union and for metalwork above come from a series of DIP (fingertip) joint fusions. Comparable figures for PIP joint fusion using the same screws have not been published.