

Carpal Fractures Other Than the Scaphoid

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What you're feeling

These fractures usually happen in a single moment: a fall onto your hand, a direct blow, a sporting tackle, or a road accident. Some people feel or hear a snap or click as the wrist gives way. The wrist is made up of eight small carpal bones, and a break in one of them is uncommon. Together they account for about 1.1% of all fractures.

Straight away, you will usually feel pain in the wrist. Swelling and bruising appear over the injured area, often within hours. Your hand, wrist or forearm may look out of line. If the injury is severe, there may be an obvious lump or deformity at the back of the wrist. The clearest sign is tenderness in one spot: pressing on one exact place hurts, while the rest of the wrist may not. Some people feel a catch or clunk when they move or load the wrist. Everyday actions hurt: gripping a kettle, pushing up from a chair, turning a door handle, or pinching with the thumb and fingers. With some injuries, pinching is hard to hold at all, or pain shoots through the palm or the thumb side of the wrist.

In the first days, the pain is often there at rest and worse at night. Moving the wrist, gripping, or putting weight through your hand makes it sharper. Over the first two weeks or so, the pain and swelling usually begin to settle as healing starts.

One thing worth knowing: these fractures are easy to miss. Ordinary wrist X-rays show less than half of them, and some bones hide behind their neighbours on a standard image. That is why your surgeon relies on where the wrist is tender, and often arranges a CT or MRI scan, which give a much clearer picture. Getting the diagnosis early matters, because a missed fracture can lead to the bone failing to heal or the wrist becoming unstable later.

What's actually happening

Your wrist is built from eight small bones arranged in two rows. They work together as a bridge between your forearm and your hand. When you fall onto your outstretched hand, the force squeezes through these bones. Depending on the force and the angle of your wrist, you might sprain a ligament, break one bone, or both.

Think of the two rows like two stacks of building blocks that must move smoothly against each other. The back row is stiff and moves as one unit. The front row is more flexible, with each bone gliding as you bend or turn your wrist. A break in one of these bones disturbs that smooth gliding. The wrist loses its normal rhythm, so bending, gripping and turning become painful and weak.

The most commonly broken bone here is the triquetrum, on the little-finger side of the wrist. Others, such as the capitate, trapezium or pisiform, are much rarer. Most of these injuries come from a fall onto the hand. Some happen when a ligament pulls a small piece of bone off its attachment point.

Bone heals by knitting back together, the same way a broken arm does. If the pieces sit in their normal positions, they usually knit well with rest and protection. If the bone has shifted out of place, or if the ligaments holding the bones together are torn, the picture changes. The bones can then be unstable, meaning they no longer line up and move as they should. That is why your surgeon checks carefully for shifted bone and torn ligaments, not just for the break itself.

Some bones have a limited blood supply, which they need to heal. A few of the rarer bones in this group depend on a single small vessel. If that supply is damaged, part of the bone may struggle to heal. This is another reason early diagnosis and treatment matter.

What we can do about it

Dr Kieran Hirpara, an upper-limb surgeon at Mater Private Hospital Rockhampton, matches the treatment to your specific injury. Patients are generally referred to our clinic by their GP; if a physiotherapist has suggested you see us, you will still need a referral from your GP in order to be eligible for the Medicare rebate. At the clinic we take a history, examine your wrist, and arrange imaging where it is needed. Most carpal fractures are treated without surgery. For a stable break, or one that has barely shifted, we usually hold the wrist still in a cast or splint for 3 to 6 weeks. Some injuries need even less: a small piece of bone pulled off by a ligament is treated much like a wrist sprain, with a splint for comfort and gentle stretching as pain allows, to keep the wrist from stiffening. We monitor healing with repeat X-rays or scans where needed, and a hand therapist guides your return to movement at the right stage.

Surgery is recommended from the outset when the bone has shifted out of place, when the wrist is unstable, or when the injury pattern calls for it. Examples include a capitate fracture with dislocation, a displaced trapezium or trapezoid fracture, a hamate fracture affecting a nerve, and a lunate fracture where the fragments have been pushed apart. The operation aims to put the bone back in line and hold it there while it heals. Sometimes the choice is genuinely shared: a break can be treated without surgery, but the pain or the final position of the bone may not suit what you need from your wrist, and surgery becomes the better fit for you.

Whichever path you take, the early weeks are similar. We will help you manage the pain, protect the wrist while the bone knits, and keep the rest of the arm moving within safe limits. Once healing is under way, hand therapy restores movement, strength and grip. After surgery, your rehabilitation is with Ruby Doolan at Extend Rehabilitation. Ruby is a hand therapist: she directs your therapy and makes any splint you need.

What to expect

Most of these fractures heal well. For a stable break held in a cast or splint, the bone usually knits within the 3 to 6 weeks we described earlier. Your wrist may still feel stiff and weak for some weeks after that, and grip strength often returns last. Over the following months, everyday tasks like dressing, cooking and typing come back gradually as pain settles.

Healing is checked with repeat X-rays or scans. One thing worth knowing: the bone can feel better long before a scan shows it has fully knitted. That is normal, and it is why we ask you to keep protecting the wrist until healing is confirmed rather than going by feel alone.

Outcomes for a single broken bone, treated early, are generally good. Most people return to their usual daily activities as the wrist settles. For work and sport, the timing depends on your job and the injury: a light-duty role is possible sooner than heavy lifting or contact sport. Some athletes with minor injuries can return to sport early, while others need longer treatment to avoid lasting problems.

Surgery follows a similar course, with the added step of the bone being held in place while it heals. Your hand therapist, Ruby Doolan at Extend Rehabilitation, guides your return to movement and strength at each stage.

There are honest risks to name. If diagnosis or treatment is delayed, the bone can fail to heal, lose its blood supply, or heal in a poor position. A delayed diagnosis can also let the bone shift further out of place. The wrist can become unstable, meaning the bones no longer line up and move as they should. If the joint surface is damaged, pain and stiffness can persist. Even after healing, a small dip in wrist function can remain one year on. These risks are the reason we move quickly on diagnosis and keep a close eye on healing.

When to see someone

Seek urgent care if your wrist is visibly out of shape, if there is an open wound, if you feel numbness or tingling, or if you cannot use your hand at all. These signs need assessment straight away.

For everything else, start with your GP. Ask for a specialist review if the pain is not settling, or if the swelling, movement or strength in your wrist are not improving week on week as healing progresses. This matters because these fractures are easy to miss on ordinary X-rays, and a delayed diagnosis can let the bone shift further or fail to heal. If your GP suspects a break but the first X-rays look clear, the wrist is usually protected and checked again within two weeks, when repeat images often show what the first ones did not.