CQ HAND + UPPER LIMB
SPECIALIST ORTHOPAEDIC SURGEON

PATIENT INFORMATION

Forearm Shaft Fractures (including Monteggia and Galeazzi)

本页面由机器翻译，尚未经临床医生审核。**英文版本**为权威版本。

What you’ re feeling

A forearm shaft fracture happens in a moment. You might fall onto an outstretched arm, take a direct blow, or land hard during sport. It takes real force to break both forearm bones, and some of these injuries also involve the elbow or wrist being pushed out of joint at the same time. You will usually feel or hear a snap when it happens.

The pain is immediate and strong. Your forearm swells quickly, often with bruising. If the bones have shifted, you may see or feel a change in the shape of your arm. Turning your palm up or down hurts, and so does gripping or lifting. Most people hold the arm still and support it with the other hand, because any movement is uncomfortable.

Some of these injuries are easy to miss at first. A break in one forearm bone can look like a simple fracture on an X-ray, but the joint at the wrist or elbow may also be damaged. That is why your surgeon will want X-rays that include the elbow and wrist, not just the middle of the arm.

In the first days, the pain is there even when you are not moving, and it often wakes you at night. Simple things like dressing, carrying a cup of tea, or turning a door handle are hard. Over the first couple of weeks the pain settles as the bone starts to heal, though the arm stays tender and stiff if you push it too far.

How your arm recovers depends on which bones are broken and whether a joint is involved. A break in one bone, well lined up, often heals in a cast. Breaks in both bones, or injuries where a joint has been pushed out of place, usually need surgery to hold the bones steady while they mend. Getting the bones lined up early matters, because the forearm needs to rotate freely for you to use your hand normally.

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What’ s actually happening

Your forearm has two bones: the radius on the thumb side and the ulna on the little-finger side. They work as a pair. When you turn your palm up or down, one bone pivots around the other at two small joints, one near the elbow and one near the wrist. That turning movement is what lets you use a screwdriver, hold a bowl, or shake someone’ s hand.

A forearm shaft fracture is a break in the middle part of one or both of these bones. Some of these injuries come as a matched set. A Monteggia injury is a break in the ulna with the top of the radius pushed out of its socket at the elbow. A Galeazzi injury is the mirror image: a break in the radius with the wrist-side joint torn apart. Think of the two bones as the two halves of a ladder. Break one rung and the ladder still holds its shape. Break both, or knock one half out of its bracket, and the whole structure loses its shape and cannot carry weight.

Bone heals by knitting back together, the same way a broken plate glues itself with new bone. But it only knits properly if the pieces sit in the right places. If a bone heals even slightly twisted or shortened, the two bones can no longer glide around each other. The hand still works, but the turning movement of the forearm does not, and that is hard to work around in daily life.

That is why lining the bones up early matters so much. A clean break in one bone, well lined up, may heal in a cast. When both bones are broken, or a joint has been pushed out of place, the pieces need to be held steady with plates and screws while they mend. The joint surfaces themselves are the trickiest part of these injuries, and keeping them lined up is what protects your rotation for the long term.

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 examine your arm and take X-rays that show the elbow and wrist as well as the forearm itself. Then we talk through the options with you.

Some injuries can heal without an operation. A clean break in one bone, well lined up, may do well in a splint or cast while it knits. A break in the ulna alone can be treated with minimal support and early movement, and a full above-elbow cast is often more restrictive than it needs to be. We monitor the arm with repeat X-rays to make sure the bones stay in place, and a hand therapist guides your return to movement at the right stage.

Surgery is recommended from the outset for many of these injuries. When both forearm bones are broken, when a bone has shifted out of position, or when a joint has been pushed out of place, the pieces need to be held steady while they mend. That usually means plates and screws. The aim is to restore the length of the bones and keep the two small joints working together, so your forearm keeps its turning movement. Some injuries, such as a Galeazzi fracture, can be hard to spot on first X-

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rays, so we look closely for them. The choice is genuinely shared when a cast is possible but the pain or the final position of the arm may not be acceptable to you.

Whichever path you take, the first weeks are similar. We help you manage the pain while the bone starts to heal. You protect the arm and follow the movement plan your hand therapist sets out. Hand therapy after surgery is with Ruby Doolan at Extend Rehabilitation, and she also makes any splint you need.

What to expect

Healing starts quickly but finishes slowly. Most forearm fractures knit within about four months, and many people can use the arm for light daily tasks well before that. The turning movement of the forearm, palm up and palm down, is usually the last thing to come back, and it can take months of steady practice.

If your arm is in a cast or splint, you protect it while the bone knits, then work on movement once the pieces are stable. A break in the ulna alone often heals well this way, and some of these breaks need very little support at all. If you have surgery, the plates and screws hold the bones steady from day one, so you can usually start moving earlier. Your hand therapist will pace this with you.

Most people do well. Plating the bones is a well-established treatment for adult forearm fractures, and most patients regain good strength and turning movement. Some loss of grip strength or rotation is common, and it is usually modest. If both bones were broken, or the injury was open (meaning the bone broke through the skin), you can expect to lose more turning movement than with a single clean break, whichever treatment is used.

Some things can slow you down. The bone may heal slowly or not join at all, which is called non-union. A bone can also knit in a poor position, which limits rotation. If the ulna fails to heal, the other forearm bone can develop a stress fracture from doing extra work. These problems are more likely in bones that are thin or brittle (osteoporosis), and in those cases a longer cast may be the safer choice. Stiffness in the elbow or wrist can also develop, especially when a joint was involved.

Injuries around the elbow need special care. A Monteggia injury can be missed if the elbow is not X-rayed, so early diagnosis matters. Some patterns, particularly those with a broken radial head at the elbow, have less predictable outcomes. Even so, most people who follow their treatment plan and do their hand therapy get back to daily tasks, work and sport over the months after injury.

When to see someone

Seek urgent care if your arm looks out of shape, there is an open wound, your fingers feel numb or tingly, or you cannot use the arm at all. These injuries need checking straight away. If you have already been seen but the pain is not settling, or the swelling, movement or strength are not improving week on week as the bone heals, see your GP or ask for a specialist review. Some of these

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injuries are easy to miss early on, especially when the elbow or wrist joint is involved as well as the bone, so it is worth having the whole arm checked again if things do not feel right.

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