CQ HAND + UPPER LIMB
SPECIALIST ORTHOPAEDIC SURGEON

PATIENT INFORMATION

Distal Radius Fracture

X-ray of a displaced distal radius fracture — the most common adult fracture pattern. The end of the forearm bone has snapped just above the wrist joint and shifted out of line.

Kieran Hirpara 4.0

What you're feeling

Your wrist and forearm will likely hurt where the break occurred. This pain often feels sharp at first, then settles into a deep ache. You may notice swelling and bruising that spreads down your hand. Your surgeon's main goal is to prevent complications from this injury. Early diagnosis and treatment are important to avoid long-term consequences.

Simple movements can become difficult. You might struggle to reach behind your back to fasten a bra. Tucking in a shirt or turning a doorknob may feel stiff or painful. Lifting even light objects can trigger a flare-up. Your surgeon will work to restore the normal shape of your bones. This helps you regain function and reduces pain over time.

Pain may worsen at night or after you have been active during the day. Some days feel better than others as healing progresses. While bone healing is the primary focus, soft tissue issues can also cause discomfort. These include tendon irritation or nerve sensitivity. In rare cases, combined nerve issues occur, but this is exceedingly rare. Your surgeon will monitor these areas closely.

You might worry about long-term stiffness or arthritis. Delayed diagnosis of certain ligament injuries can lead to arthritis within 10 years if not treated. However, with proper care, most people recover well. The risk of the bone failing to heal is minimal. Your surgeon may use specific techniques to stabilize the fracture. These methods aim to provide structural stability and help you return to daily tasks sooner.

Avoid pushing through severe pain. If you experience sudden numbness, tingling, or increased swelling, contact your care team. These could be signs of soft tissue complications. Your surgeon will guide you on safe movements. Resting the arm and keeping it elevated can help manage swelling. Follow your surgeon's advice on when to start gentle motion. This balance protects the healing bone while keeping your joints mobile.

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What's actually happening

A distal radius fracture is a break in the large bone of your forearm near the wrist. This area acts as a critical shock absorber for your hand. When you fall on an outstretched hand, the force travels up your arm and can snap this bone. The break often causes the bone ends to shift out of place, a process known as displacement. This misalignment disrupts the smooth surface of the joint, making movement painful and stiff.

Your surgeon's primary goal is to restore the natural shape and alignment of your wrist. Think of your wrist joint like a hinge on a door. If the door frame is bent, the door will not close or swing properly. Similarly, if the radius is not aligned correctly, your wrist will not function smoothly. Optimal outcomes depend on restoring and maintaining this anatomic alignment. This ensures that the bones fit together correctly, allowing you to regain strength and range of motion.

In many cases, the break involves the metaphysis, the wider part of the bone just above the joint. If the bone shatters in this area, it is called comminution. Your surgeon may use bone graft substitutes to fill gaps and provide structural stability. These materials act like scaffolding, holding the broken pieces in place while your body heals them. The risk of the bone failing to heal, or nonunion, is minimal in these fractures.

Sometimes, the break is accompanied by a fracture of the ulnar styloid, a small bony bump on the other forearm bone. You do not need to worry about this separate break. An associated ulnar styloid fracture does not affect the outcomes of your distal radial fracture. Your surgeon will focus on stabilizing the radius, which is the main driver of your recovery.

Complications are rare but must be prevented. Nerve damage involving both the median and ulnar nerves is an exceedingly rare complication. Early diagnosis and treatment of any issues are important to avoid long-term consequences. Your surgeon will use various methods to fix the bone, such as external fixation supplemented with percutaneous pins. This approach yields reliably good results with a low complication rate for displaced fractures. The key is early recognition and management to ensure you return to full function.

What we can do about it

Your primary concern right now is preventing complications. Early diagnosis and treatment are important to avoid long-term consequences. You should focus on self-management and physiotherapy first. Your surgeon will guide you on safe movements. The goal is to restore function without causing further harm. Soft tissue complications can be more problematic than the bone injury itself. These include tendon injury, nerve dysfunction, skin problems, and complex regional pain syndrome. You must report any new numbness or severe swelling immediately. Combined median and ulnar nerve palsy is exceedingly rare, but it requires a standardised management strategy if it occurs.

Medical management focuses on controlling pain and inflammation. Your surgeon may prescribe pain medication or anti-inflammatories to help you stay comfortable. In some cases, injections such as cortisone, hyaluronic acid, or PRP may be considered to reduce swelling and pain. These treatments aim to provide relief while your body begins to heal. The effect of these injections typically lasts for a limited period, allowing you to participate in therapy. It is important to note that bone graft substitutes are primarily used to provide structural

stability rather than just pain relief. The risk of nonunion is minimal in distal radius fractures, so the focus remains on soft tissue care and alignment.

Surgery is considered when conservative care has reached its limit. Your surgeon may recommend operative treatment if there is significant deformity or instability. Radiographic factors, such as metaphyseal collapse ratio, help predict instability. An associated ulnar styloid fracture does not affect the outcomes of a distal radial fracture, so clinicians should be cautious in electing operative treatment for this alone. External fixation supplemented with percutaneous pins is an excellent option for displaced fractures. This method yields reliably good results with a low reoperation and complication rate. Volar plating may offer superior radiological results compared to k-wiring, but this does not always correlate with a better functional outcome at 32 months follow up. Optimal outcomes depend on early recognition and management of any associated injuries, such as intrinsic carpal ligament injuries. Delayed diagnosis of these ligament injuries leads to arthritis within 10 years if not treated.

What to expect

Your surgeon's main goal is to prevent complications and ensure you heal correctly. Early diagnosis and treatment are vital to avoid long-term issues. Most people recover well when the fracture is managed properly. The risk of the bone failing to heal (nonunion) is minimal.

You may notice a small loss of height in your wrist bone if you receive a plate. This is normal and does not usually affect your final result. If you have a small fracture on the side of your wrist (ulnar styloid), it typically does not change your outcome. Your surgeon will decide if surgery is needed based on the main break, not just this side piece.

Soft tissue injuries can sometimes be more problematic than the bone break itself. These include tendon irritation, nerve issues, or skin problems. Combined nerve damage is exceedingly rare. If you have a complex break with dislocation, early recognition and keeping the bones in their correct position are key to a good outcome. Delayed diagnosis of ligament injuries in the wrist can lead to arthritis within 10 years if not treated.

With modern techniques, your surgeon can restore the bone's shape and stability. This helps you return to function sooner. External fixation with pins is an excellent option for displaced fractures, offering reliable results with low complication and reoperation rates. Volar plating provides superior bone alignment on X-rays compared to wires, though functional outcomes at 32 months are similar.

If left alone or treated poorly, complications can persist. Your surgeon will monitor you closely to catch any issues early. Most patients regain good use of their wrist. You should expect a steady improvement over weeks and months. Follow your surgeon's advice to protect your healing tissues and avoid setbacks.

When to see someone

See your GP if you have persistent pain that does not improve with rest, or if you notice weakness or instability in your wrist. Ask for a specialist review if your symptoms interfere with sleep or work, or if you experience

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sudden worsening. Early diagnosis and treatment are important to avoid long-term consequences. Soft tissue complications may be more problematic than the bone injury itself. For example, delayed diagnosis of intrinsic carpal ligament injuries leads to arthritis within 10 years if not treated. Your surgeon's primary concern is preventing these issues through early recognition and management.

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