CQ HAND + UPPER LIMB
SPECIALIST ORTHOPAEDIC SURGEON

INFORMATION & CONSENT

Partial Wrist Fusion

X-ray after a partial wrist fusion: only the painful, arthritic joints are fused with screws, leaving the healthy joints free to move so the wrist keeps some bend and rotation.

Kieran Hirpara 4.0

At-a-glance recovery. Pooled from 80 published studies — your own pace will vary.

LIGHT DUTIES desk work, driving, daily tasks	MOST EVERYDAY ACTIVITIES manual work, sport, gym	FINAL OUTCOME PLATEAU pain and strength
6-12 weeks	**6-12 months**	**12-24 months**
Return to light activities and desk work typically occurs within 6 to 12 weeks, with K-wires often removed around this time.	Return to manual work and full strength activities is generally achieved by 6 to 12 months post-surgery.	Maximum functional improvement and pain relief typically plateau between 12 and 24 months, with long-term stability observed at 10 years.

Why this operation has been suggested

Your surgeon has suggested a partial wrist fusion, also known as a four-corner or capitolunate arthrodesis, to treat advanced wear-and-tear arthritis in your wrist. This procedure is typically offered when non-surgical treatments have not provided enough relief and your specific joint damage involves the capitolunate area. It is designed to relieve pain and provide stability by fusing the remaining healthy bones together.

The main goal of this operation is to give you reliable, resilient function that remains stable over time. By removing the damaged bone and joining the others, the surgery aims to stop the grinding that causes pain while preserving as much motion as possible. This approach offers a strong alternative to a total wrist replacement or a more extensive fusion, helping you return to daily activities with less discomfort.

Before the operation

Your surgeon will likely order X-rays, blood tests, or an MRI to check your wrist and overall health before surgery. You will need to fast for several hours before the procedure and stop taking certain medications as your surgeon instructs. Please arrange for a friend or family member to drive you home, as you cannot drive yourself. Bring a complete list of all current medicines and wear comfortable, loose clothing to the hospital. This

operation is performed through a single open incision on the back of your wrist. Your surgical team will review all specific instructions with you directly.

On the day

You will arrive at the hospital and meet your anaesthetist to discuss your care. This operation is done under general anaesthetic. You will be fully asleep for the operation. Some patients may also have a regional nerve block for post-operative pain relief — the anaesthetist decides on the day based on your individual circumstances.

Your surgeon will perform the procedure through a single open incision over your wrist. You will then be moved to the recovery area to wake up safely. You will be monitored closely while the effects of the anaesthetic wear off.

What the operation involves

Your surgeon will make a single cut over the back of your wrist to reach the joint. This open approach allows direct access to the bones inside. Depending on your specific arthritis, your surgeon may remove the scaphoid bone or resurface the capitate bone with a special implant.

Next, your surgeon prepares the joint surfaces for fusion. If you are having a four-corner fusion, the surgeon removes the scaphoid bone and joins the remaining four wrist bones together. For a capitolunate fusion, only the capitate and lunate bones are joined. The surgeon uses screws, staples, or a metal plate to hold these bones firmly in place while they heal. Local bone graft may be added to help the bones grow together.

Finally, your surgeon closes the cut with stitches and applies a dressing. The goal is to create a stable, pain-free wrist while keeping as much motion as possible in the remaining joints. This procedure is designed for wrists with advanced arthritis where other treatments have not worked.

After the operation

You will wake up in a recovery ward where your team manages your pain. Your surgeon uses a single open incision over your wrist. You will leave with a bulky dressing and a sling or brace to protect your wrist. Most patients go home the same day, but some stay overnight. You must have someone stay with you for the first 24 hours to help you. You will start moving your fingers gently right away. Your surgeon will guide you on how to care for your wound and when to start using your hand again.

Recovery

After your open surgery, you will likely feel pain and swelling in your wrist and hand. This is normal as your body heals. Your surgeon will guide you on how to manage this discomfort with medication and ice. You will wear a cast or splint to protect the fused bones while they join together.

In the early days, you will keep your arm elevated to reduce swelling. You will use a sling for support when moving around the house. Simple tasks like eating or brushing your teeth are possible with care. Your physiotherapist will teach you gentle exercises to keep your fingers moving and prevent stiffness. As the swelling settles and movement returns, you will gradually start using your hand more.

Your surgeon and physio will guide you on when to stop using the brace and how to strengthen your grip. Your timeline may differ from others; your surgeon and physio will guide you based on your healing. You will feel more confident as the pain fades and your wrist becomes stable.

What can go wrong

Most patients do well, but problems can occasionally happen. Your surgeon and the team monitor you closely to spot any issue early.

Sometimes the bones do not heal together as planned. You might notice deep pain that does not ease with simple painkillers or a feeling that the wrist is still unstable. If this happens, call your surgeon to discuss the next steps.

There is a small chance the joint may need to be fully fused later. You might feel increasing stiffness or pain that returns after a period of improvement. Your surgeon will review your X-rays and talk to you about converting to a total wrist fusion if needed.

In some cases, the bone graft or screws may not work as intended. You could feel a clicking or grinding sensation in your wrist, or notice sudden swelling and tenderness. Bring this up at your next review so your surgeon can check the hardware.

If you have a pyrocarbon implant, the long-term results can be hard to predict. You might experience pain or loss of motion over time. If the implant fails, a fusion surgery remains an option to fix the problem.

The complications table on this page lists typical rates if you want the specifics.

When to call us

Call us if you have a fever, increasing redness, or discharge from your wound. Contact your surgeon immediately for sudden, severe pain or if you lose feeling in your hand. Go to emergency care if you notice calf swelling or shortness of breath. These signs may mean a blood clot or infection that needs urgent treatment.

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COMPLICATIONS & CONSENT

Partial Wrist Fusion

Complication rates from published literature

Pooled from 80 published studies. These are population-level rates, not your individual risk — your surgeon will discuss what applies to you.

COMPLICATION	REPORTED RATE	NOTES
stiffness requiring intervention	**15.0%**	Stiffness requiring manipulation under anesthesia was reported in 15% of patients in midcarpal hemiarthroplasty cohorts.
progression of arthritis	**13.6-41.0%**	Progression of degenerative changes in adjacent joints (e.g., radiolunate) occurs in a significant portion of patients.
reoperation	**12.0-22.2%**	Unplanned reoperations for various reasons including pain, nonunion, or hardware issues range from 12% to 22.2%.
nonunion	**8.9-21.4%**	Rates vary by fixation method and study, with some series reporting up to 21.4% nonunion in four-corner fusion.
implant failure	**5.1-20.0%**	Includes hardware failure, implant dislocation, or loosening, particularly in arthroplasty or specific fixation methods.
conversion to total wrist arthrodesis	**4.9-19.2%**	Conversion rates are significantly higher for partial wrist arthrodesis (19.2%) compared to proximal row carpectomy (4.9%).
nerve injury	**1.6-18.2%**	Includes superficial radial nerve neuritis, median nerve injury, and dorsal sensory branch of ulnar nerve penetration.
hardware removal	**1.48-11.4%**	Hardware irritation, pain, or impingement often necessitates removal, with rates ranging from 1.48% to 11.4%.
infection	**0.63-11.1%**	Includes superficial pin track infections and deep infections, with rates varying by fixation technique (e.g., K-wires).

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I have read this information and have had the opportunity to ask Dr Hirpara questions about the procedure, its expected recovery, and the complications listed above.

PATIENT — PRINT NAME	SIGNATURE	DATE

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