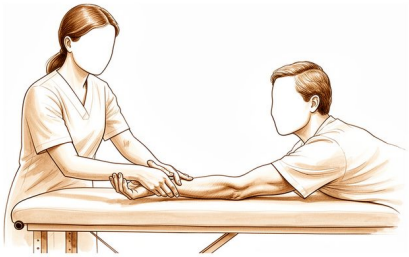
CQ HAND + UPPER LIMB
SPECIALIST ORTHOPAEDIC SURGEON

INFORMATION & CONSENT

Radial Tunnel Release

The radial nerve wraps around the outside of the elbow and divides in the forearm. Radial tunnel release frees the deep branch where it gets pinched between the supinator muscle layers.



At-a-glance recovery. Pooled from 125 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
2-6 weeks	**3-6 months**	**12 months**
Return to light activities and desk work typically occurs within 2 to 6 weeks, with pain relief often noted early.	Full functional recovery and return to manual work or sports typically occurs within 3 to 6 months.	Maximum improvement and plateau of pain/strength are typically observed by 12 months post-operatively.

Why this operation has been suggested

This operation, called a radial tunnel release, is a surgery to free the radial nerve from tight tissues in your upper arm. Your surgeon has likely suggested this because you have radial tunnel syndrome that has not improved with non-surgical treatments like rest or therapy. While non-operative care is the first step for this condition, surgery remains a viable option when symptoms persist.

The goal of this procedure is to relieve pressure on the nerve to reduce pain and improve function. Your surgeon will use a single open incision to carefully access the area and release the tight tissue around the nerve. This approach aims to restore normal nerve movement and help you regain use of your arm.

Before the operation

You will need to arrange a ride home and bring a list of your current medications. Your surgeon may order X-rays, blood tests, or an anaesthetic review to check your health before surgery. Please fast for the time your

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surgeon specifies and stop any medicines they ask you to pause. Wear comfortable clothing to the hospital. This operation uses a single open incision over the area where the nerve is trapped. Your surgeon will carefully expose the nerve through this cut to relieve pressure. You will need to follow these steps to ensure you are ready for the procedure.

On the day

You will arrive at the hospital and meet your anaesthetist to discuss your care plan. 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.

Once you are ready, you will be taken to the operating theatre. Your surgeon will make a single cut over the area needing treatment to access the nerve. After the work is finished, you will wake up in recovery where staff will monitor your comfort and healing.

What the operation involves

Your surgeon will make a single cut over your elbow to reach the radial nerve. This open approach allows them to see and release every point where the nerve is being squeezed. They will carefully free the nerve from the tight tunnel of tissue that is pressing on it.

If you have an elbow stiffness or a fracture, your surgeon may also perform preventive nerve release. In some cases, they might need to move the nerve to a safer position or transfer a tendon if the nerve has been damaged for a long time. The goal is to fully clear the path around the nerve so it can function normally again.

Once the nerve is released and protected, your surgeon will close the cut with stitches. The exact method of closure depends on how your skin heals, but the focus remains on protecting the nerve you just freed. This procedure is usually reserved for cases where non-surgical treatments have not helped.

After the operation

You will wake up in the recovery ward. Your surgeon uses a single open incision over the operative site to release the radial nerve. You will have a dressing and likely a sling or brace on your arm. Pain is managed with standard medication. This is usually a day case, so you can expect to go home the same day, although occasionally patients stay overnight. You must have someone stay with you for the first 24 hours to help with mobilisation and wound care. You will begin moving your arm gently as soon as you are comfortable.

Recovery

You will likely feel some pain and swelling in your forearm and elbow during the first few days. This is normal as your body heals from the single incision made over the operative site. Your surgeon may recommend simple pain relief and keeping your arm elevated to help ease this discomfort.

You will wear a sling or brace to protect your arm while it heals. Your physiotherapist will guide you through gentle exercises to keep your shoulder and fingers moving. As the swelling settles and movement returns, you will start using your hand more naturally. You can return to daily tasks at home as your grip improves without pain.

Your recovery journey is unique. Some people regain function quickly, while others take longer. Your surgeon and physiotherapist will guide you based on how your nerve and muscles respond, ensuring you move forward safely.

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.

You might notice sudden weakness in your wrist or fingers if the radial nerve is affected. This is a condition called nerve palsy. If you feel this, tell your surgeon right away. Early action helps the nerve recover better.

Sometimes, the nerve can be irritated by the surgery itself. You may feel temporary numbness or tingling in your hand or forearm. This usually goes away on its own within three to five months. If it does not improve, bring it up at your next review.

In rare cases, a superficial vein in your forearm can become inflamed. This might feel like a tender, red cord under the skin. It can sometimes trap a small nerve branch. If you see this, contact the clinic for advice.

If you have had a fracture repair, deep infection is a risk. You might notice redness spreading from the wound, fever, or pain that does not ease with simple painkillers. Go to the emergency department if these signs appear.

Complications from reconstructive surgery can be serious. You might face profound disability if the joint loosens or breaks again. Infection and bone fractures near the joint are the most severe problems. Report any new pain or instability immediately.

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. Go to emergency if you feel sudden severe pain, calf swelling, or shortness of breath. Contact your surgeon immediately if you notice new loss of sensation or cannot move your arm or hand. These signs need urgent assessment to protect your recovery.

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COMPLICATIONS & CONSENT

Radial Tunnel Release

Complication rates from published literature

Pooled from 125 published studies. These are population-level rates, not your individual risk — your surgeon will discuss what applies to you.

COMPLICATION	REPORTED RATE	NOTES
Incomplete pain relief or persistent symptoms	**25.5%**	Fair to poor outcomes occur in 29-33% of patients; pain may persist due to incorrect diagnosis, incomplete decompression, scar tissue formation, or co-existing conditions.
Stiffness or reduced range of motion	**25.0%**	Postoperative elbow and forearm stiffness can occur particularly if immobilized for prolonged periods; return to normal activities typically takes 3-4 months.
transient radial nerve palsy	**15.0%**	Transient radial nerve palsy is observed in 15% of patients in specific arthroscopic or fracture contexts.
Bleeding or haematoma	**10.0%**	The radial recurrent vessels (leash of Henry) cross the posterior interosseous nerve and must be ligated; bleeding or haematoma formation can cause nerve compression.
Weakness or fatigue	**10-20%**	Forearm and grip weakness is common early; typically improves with strengthening exercises.
nerve graft failure	**5.0%**	Early graft failure is reported in 5% of cases.
Injury to superficial radial nerve branches	**4.5%**	The superficial sensory branch and posterior cutaneous nerve of the forearm can be injured, causing numbness, painful neuroma, or hypersensitivity.
Revision surgery	**2.1%**	Approximately 2.1% of patients require revision surgery within 90 days for incomplete decompression, recurrent nerve compression from scar tissue, or incorrect diagnosis.

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COMPLICATION	REPORTED RATE	NOTES
Iatrogenic nerve injury	**1.05%**	Injury to the posterior interosseous nerve or its branches during surgical decompression may cause weakness of finger/thumb/wrist extension or forearm supination.
Wound complications	**0.5%**	Wound infection, dehiscence, or delayed healing can occur; superficial infections respond to oral antibiotics.
Recurrent compression from scar tissue	**Rare**	Scar tissue may reform around the decompressed nerve, causing recurrent symptoms.

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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