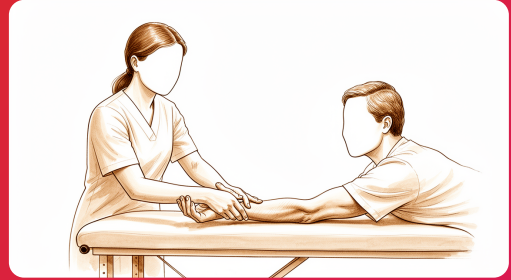


Radial Tunnel Release



Gentle stretching and nerve-gliding work after radial tunnel release.

Kieran Hirpara © ⓘ 4.0

This protocol guides your recovery after radial tunnel release with Dr Kieran Hirpara at Mater Private Hospital Rockhampton. It explains what to expect in the weeks after surgery and sets out the exercise program from your post-operative handout – bring this page or its PDF to your first physiotherapy or hand therapy visit so your rehabilitation stays coordinated. Your therapist may adjust the plan depending on how your recovery progresses.

If you have any concerns about your wound after surgery, get in touch with the rooms. It is often helpful to take a photo of the wound and email it for review.

What to expect

Care of your wound is explained in the practice's wound care advice. The nerves that have been released will want to stick as your wound heals – the exercises below are very important to prevent your nerve sticking together.

Sometimes the wound can become sensitive. This is normal, and can be prevented or minimised by commencing daily desensitisation: gently tapping and rubbing over the wound (or the dressing), starting immediately following your surgery. This type of “sensory feedback” allows the nerve to normalise touch and texture.

Once the wound is fully healed, commence scar massage – firm circles over the incision. Refer to the wound care advice for more information on scar management.

It is important to have realistic expectations of recovery. The radial nerve has to travel and stretch a measurable amount during ordinary arm movements, so keeping it moving early is what stops it adhering to the healing tissues [1]. Even so, the relief of pain after radial tunnel release is often gradual rather than immediate, and for some people it is partial. Published long-term studies report good outcomes in the region of two-thirds to occasionally higher of patients overall, with the best results in those who have radial tunnel symptoms alone [2] [3]. Recovery tends to be slower and less complete when there is also tennis elbow (lateral epicondylitis), more than one nerve compression in the same arm, or a workers' compensation claim [3][4]. Your nerve-gliding

program and graded desensitisation are the parts of rehabilitation most within your control, and steady daily practice gives the nerve its best chance to settle.

Precautions and limitations

Light functional use of your hand is encouraged for daily living tasks such as self-care, feeding, dressing, writing and typing. Beyond that, the limits are simple: no lifting, gripping, weight-bearing or use of vibration machinery (for example, power tools or a lawn mower) for up to 6 weeks after surgery, and driving is limited for the first 1–2 weeks.

For your physiotherapist:

Goals

- Prevent the released nerve adhering to the healing wound (nerve gliding program)
- Settle wound sensitivity through graded desensitisation
- Maintain wrist, forearm and elbow range of motion
- Support light functional use of the hand for activities of daily living

Management

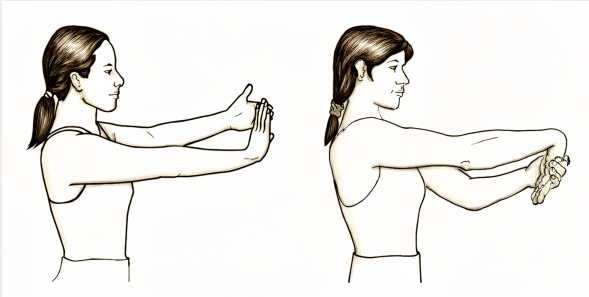
- Daily desensitisation – gentle tapping / rubbing over the wound (dressing) – commencing immediately post-operatively
- Scar massage (firm circles over the incision) once the wound is fully healed
- Home exercise program as per the cards below: wrist flexion / extension stretch; wrist supination / pronation stretch; elbow flexion / extension; radial nerve glides
- Favour gentle sliding-type (“slider”) nerve glides over aggressive end-range tensioning: sliding techniques achieve substantially greater nerve excursion at much lower nerve strain, which is better tolerated around a recently decompressed nerve [1][5]
- Nerve mobilisation may be considered as an adjunct to the program; the evidence base for neural mobilisation in nerve-related conditions is supportive but of variable certainty, so progression should be symptom-guided [6]

Precautions

- Light functional use of the hand only (self-care, feeding, dressing, writing, typing)
- No lifting, gripping, weight-bearing or use of vibration machinery (e.g. power tools, lawn mower) for up to 6 weeks post-op
- Driving is limited for the first 1–2 weeks
- Nerve glides and stretches should be gentle and essentially pain-free – avoid forcing into a range that reproduces the pre-operative nerve pain

These are the exercises from your post-operative handout, started after surgery and continued at home as guided by your physiotherapist or hand therapist. The repetitions, hold times and frequency are listed on each card.

Your exercises

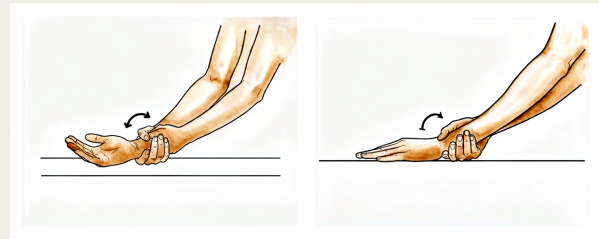


Wrist flexion / extension stretch

Rest your elbow on a table and gently rock your wrist back and forth (or rest it over the edge of a table or armchair, as pictured). Once more comfortable, use your other hand on your palm to push the wrist backwards, then forwards, keeping your fingers loose. Hold each stretch for 15 seconds; repeat 5 times in each direction.

10 repetitions, 4–5 times daily

Kieran Hirpara © ⓘ ⓘ 4.0

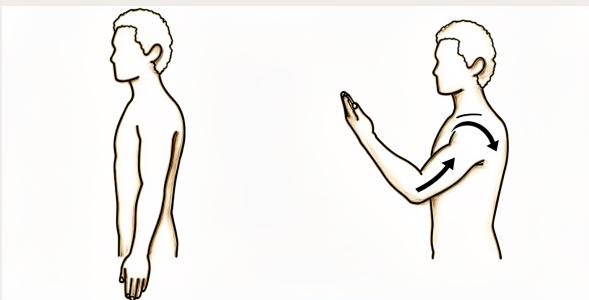


Wrist supination / pronation stretch

Bend your elbow at the side of your body, palm facing the ceiling. Turn your hand palm up and hold for 15 seconds, then palm down and hold for 15 seconds; repeat 5 times. As comfort increases, use your opposite hand – holding at your WRIST, not your hand – to gently push the rotation further into each position until you feel a stretch.

5 repetitions, 4 times a day, 5–7 days per week

Kieran Hirpara © ⓘ ⓘ 4.0

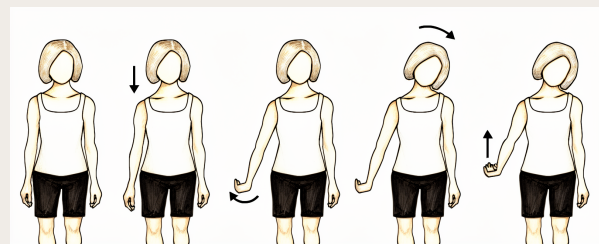


Elbow flexion / extension

With your arm by your side, gently straighten your forearm and elbow as far as you can. Hold this end-range stretch for 3–5 seconds. Repeat in the opposite direction, bending your forearm up and attempting to touch your shoulder with your hand.

10 repetitions, 2 times a day, daily

Kieran Hirpara © ⓘ ⓘ 4.0



Radial nerve glides

Stand with your arms loose at your sides. Drop your shoulder down and reach your fingers toward the floor. Internally rotate your arm (thumb toward your body) and flex your wrist, palm up. Gently tilt your head away from the side you are stretching, then raise your arm up and away from your body. Hold each position of the glide for 3 to 5 seconds.

5–8 repetitions, 2–4 times a day, 6–7 days per week

Kieran Hirpara © ⓘ ⓘ 4.0

This exercise program was written in association with Sarah Farrell, Bachelor of Occupational Therapy (BOccThy), Accredited Hand Therapist (AHT).

After your protocol

This protocol works alongside the practice's general recovery advice – see [managing post-operative pain](#), [wound care](#) and [hand therapy basics](#). For the operation itself and the condition it treats, see [radial tunnel release](#) and [radial tunnel syndrome](#).

REFERENCES

1. Wright TW, Glowczewskie F, Cowin D, Wheeler DL. Radial nerve excursion and strain at the elbow and wrist associated with upper-extremity motion. *J Hand Surg Am.* 2005;30(5):990–996.
2. Lee JT, Azari K, Jones NF. Long term results of radial tunnel release – the effect of co-existing tennis elbow, multiple compression syndromes and workers' compensation. *J Plast Reconstr Aesthet Surg.* 2008;61(9):1095–1099.
3. Sotereanos DG, Varitimidis SE, Giannakopoulos PN, Westkaemper JG. Results of surgical treatment for radial tunnel syndrome. *J Hand Surg Am.* 1999;24(3):566–570.
4. Naam NH, Nemani S. Radial tunnel syndrome. *Orthop Clin North Am.* 2012;43(4):529–536. (Radial Tunnel Syndrome, StatPearls.)
5. Coppieters MW, Butler DS. Do "sliders" slide and "tensioners" tension? An analysis of neurodynamic techniques and considerations regarding their application. *Man Ther.* 2008;13(3):213–221.
6. Basson A, Olivier B, Ellis R, Coppieters M, Stewart A, Mudzi W. The effectiveness of neural mobilization for neuromusculoskeletal conditions: a systematic review and meta-analysis. *J Orthop Sports Phys Ther.* 2017;47(9):593–615.