

Radial Tunnel Syndrome Treatment Guidelines

Radial tunnel syndrome (RTS) is a compression neuropathy of the radial nerve in the forearm. Accurate diagnosis is crucial for effective treatment.

Non-surgical treatment

Wrist splinting

This involves using a custom-made or prefabricated wrist splint. The splint should be worn during activities and at night for 4-6 weeks and maintain a neutral position on the wrist.

Splinting avoids forceful or repeated supination and wrist dorsiflexion, reducing pressure on the radial nerve.

Activity modification

Identify and modify activities that exacerbate symptoms. Have the patient avoid repetitive forearm rotation, forceful gripping, and sustained wrist extension. Ergonomic adjustments can also be made at work and home. Recommend that the patient also avoid wearing tight forearm straps or bands.

Medication

Non-steroidal anti-inflammatory drugs (NSAIDs) such as ibuprofen, naproxen, or diclofenac are commonly used as the first-line pharmacological treatment for radial tunnel syndrome. NSAIDs can help reduce inflammation and pain associated with the condition. To minimize potential side effects, they should be used at the lowest effective dose and for the shortest duration possible.

Surgical treatment

A surgical referral must be considered when a wrist drop or weakened digital extension develops. It can also be an option when conservative treatment is ineffective after 3 months of consistent application.

The surgical procedure for RTS involves the surgical decompression of the radial nerve.

It is important to note that treatment should be individualized based on patient factors and the severity of symptoms. Patient education about the condition and treatment rationale is also essential. Finally, occupational considerations may influence treatment choices and duration.

Shamrock, A. G., & Das, J. M. (2021). *Radial tunnel syndrome*. PubMed; StatPearls Publishing. <https://www.ncbi.nlm.nih.gov/books/NBK555937/>

Steinberg, D. R. (2024, May). *Radial tunnel syndrome*. MSD Manual Professional Edition. https://www.msmanuals.com/professional/musculoskeletal-and-connective-tissue-disorders/hand-disorders/radial-tunnel-syndrome?query=radial%20tunnel#Symptoms-and-Signs_v8355180