

Carpal Tunnel Syndrome

Physical Therapy or Surgery?

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Carpal tunnel syndrome causes pain, numbness, and weakness in the wrist and hand. Nearly 50% of all work-related injuries are linked to carpal tunnel syndrome, and people with this injury are more likely to miss work because of it. Patients with carpal tunnel syndrome can be treated with physical therapy or surgery.

Although surgery may be considered when the symptoms are severe, more than a third of patients do not return to work within 8 weeks after an operation. Based on the potential side effects and risks of surgery, patients often ask if they might try physical therapy first. An article in the March 2017 issue of *JOSPT* assesses the effectiveness of therapy and surgery to treat carpal tunnel syndrome.



INTERVENTIONS AND EXERCISES. Your physical therapist will provide a combination of manual therapy (A) and stretching exercises (B) to improve your recovery from carpal tunnel syndrome. These illustrations show a few of the manual therapy and exercise treatment options your therapist may recommend and use.

This *JOSPT* Perspectives for Patients is based on an article by Fernández-de-las-Peñas et al, titled "The Effectiveness of Manual Therapy Versus Surgery on Self-reported Function, Cervical Range of Motion, and Pinch Grip Force in Carpal Tunnel Syndrome: A Randomized Clinical Trial" (*J Orthop Sports Phys Ther* 2017;47(3):151-161. doi:10.2519/jospt.2017090).

This Perspectives article was written by a team of *JOSPT*'s editorial board and staff. Deydre S. Teyhen, PT, PhD, Editor, and Jeanne Robertson, Illustrator.

NEW INSIGHTS

The researchers studied the cases of 100 women with carpal tunnel syndrome and compared 50 patients who were treated with physical therapy and 50 patients who were treated with surgery. The patients who did not receive surgery were treated with manual therapy techniques that focused on the neck and median nerve for 30 minutes, once a week, with stretching exercises at home. After 1 month, the patients in the physical therapy group had better hand function during daily activities and better grip strength (also known as pinch strength between the thumb and index finger) than the patients who had surgery. At 3, 6, and 12 months after treatment, patients in both the physical therapy and surgery groups showed similar improvements in function and grip strength. Pain also decreased for patients in both groups. The researchers concluded that physical therapy and surgery for carpal tunnel syndrome yield similar benefits.

PRACTICAL ADVICE

The researchers found that after 1 year, patients who had physical therapy that focused on manual therapy of the neck and median nerve, combined with stretching exercises, had outcomes similar to those of patients who had surgery. In addition, the physical therapy patients experienced faster improvements at the 1-month mark than did patients whose condition was treated surgically. This research supports the decision of patients who want to try physical therapy first before considering surgery. If you have been diagnosed with carpal tunnel syndrome, physical therapy offers strong evidence-based treatment options to help you recover. Evidence indicates that physical therapy is as effective as surgery to treat this condition.

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