

Physical therapy proves as effective as surgery for carpal tunnel syndrome

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Physical therapy is as effective as surgery in treating carpal tunnel syndrome, according to a new study published in the March 2017 issue of the *Journal of Orthopaedic & Sports Physical Therapy (JOSPT)*.

Researchers in Spain and the United States report that one year following treatment, patients with [carpal tunnel syndrome](#) who received physical therapy achieved results comparable to outcomes for patients who had surgery for this condition. Further, physical therapy patients saw faster improvements at the one-month mark than did patients treated surgically.

Carpal tunnel syndrome causes pain, numbness, and weakness in the wrist and hand. Nearly half of all work-related injuries are linked to this syndrome, which can result from repetitive movements. Although surgery may be considered when the symptoms are severe, more than a third of patients do not return to work within eight weeks after an operation for carpal tunnel syndrome.

The study demonstrates that physical therapy—and particularly a combination of manual therapy of the neck and median nerve and stretching exercises—may be preferable to surgery, certainly as a starting point for treatment.

"Conservative treatment may be an intervention option for patients with carpal tunnel syndrome as a first line of management prior to or instead of surgery," says lead author César Fernández de las Peñas, PT, PhD,

DMSc, with the Department of Physical Therapy, Occupational Therapy, Rehabilitation, and Physical Medicine at Universidad Rey Juan Carlos, Alcorcón, Spain.

Dr. de las Peñas and his fellow researchers studied the cases of 100 women with carpal tunnel syndrome. By random allocation, 50 women were treated with physical therapy and 50 with surgery. Patients assigned to the physical therapy group 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 one 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 three, six, and 12 months following treatment, patients in the surgery group were no better than those in the physical therapy group. Both groups showed similar improvements in function and grip strength. Pain also decreased similarly for [patients](#) in both groups. The researchers conclude that [physical therapy](#) and [surgery](#) for carpal [tunnel syndrome](#) yield similar benefits one year after treatment. No improvements in cervical range of motion were observed in either patient group.

The researchers caution that because the study only included women from a single hospital, additional research needs to be done to generalize their findings. Further, there are no available data on the most effective dosage for the manual therapy protocol applied.

More information: César Fernández-de-las-Peñas et al, 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, *Journal of Orthopaedic & Sports Physical Therapy* (2017). [DOI: 10.2519/jospt.2017.7090](https://doi.org/10.2519/jospt.2017.7090)

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