

Carpal Tunnel Syndrome

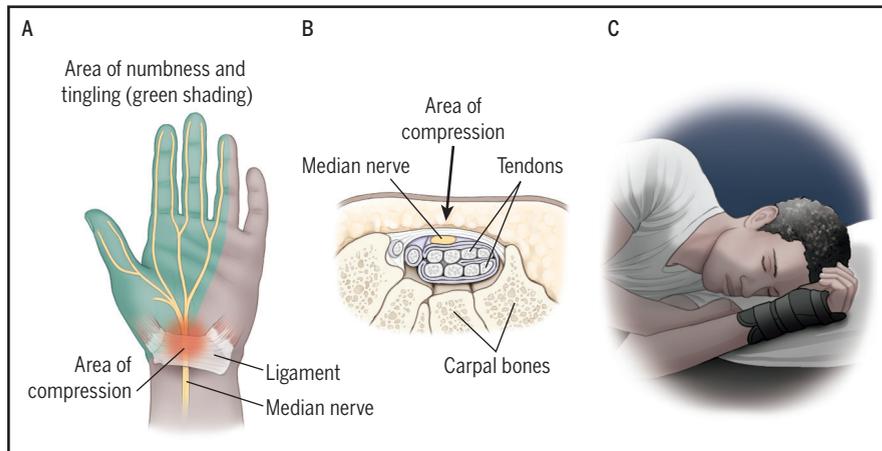
Treating Hand Pain and Numbness

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Numbness and tingling in your hand and fingers can be painful and limit your use of them. Pain and a loss of feeling in your thumb, index finger, middle finger, and part of your ring finger may be a sign of carpal tunnel syndrome (see illustration). Eight percent of people have carpal tunnel syndrome at some point in their lives. Women and those over 30 years of age tend to experience this condition more often.

This syndrome and the pain, numbness, tingling, and weakness in your hand that result from it are caused by pressure

on the median nerve as it travels through the carpal tunnel. Guidelines published in the May 2019 issue of *JOSPT* make recommendations, based on best practices from the published literature, for evaluating, diagnosing, and treating carpal tunnel syndrome. For you as a patient, these guidelines outline the best rehabilitation treatment options based on the scientific research. Ultimately, the best care is a combination of the leading science, the clinical expertise of your health care provider, and your input as the patient. These guidelines help inform the first step in that process.



UNDERSTANDING CARPAL TUNNEL SYNDROME. The median nerve can be compressed in the carpal tunnel. This can cause numbness and tingling of the hand, shown here in the green-shaded area (A). If these symptoms progress, your hand can become weaker. This image of the carpal tunnel shows the median nerve (yellow) in the carpal tunnel (B). One of the best nonsurgical treatment options is to wear a night brace that keeps your wrist straight (in a neutral position) while you sleep (C).

This *JOSPT Perspectives for Patients* is based on clinical practice guidelines by Erickson et al titled "Hand Pain and Sensory Deficits: Carpal Tunnel Syndrome" (*J Orthop Sports Phys Ther.* 2019;49(5):CPG1-CPG85. <https://doi.org/10.2519/jospt.2019.0301>).

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NEW INSIGHTS

To develop these guidelines, expert clinicians and researchers reviewed papers about carpal tunnel syndrome either published or accepted for publication before November 2018. These reviewers screened thousands of articles and closely examined hundreds of the best papers about the diagnosis, outcome measures, assistive technologies and braces, and nonsurgical treatment options for this condition.

PRACTICAL ADVICE

Physical therapists are well trained to assess and evaluate people with carpal tunnel syndrome. Although some patients (anywhere from 28% to 62%) recover without treatment, others (from 32% to 58%) get worse. A key to nonsurgical treatment shown to help those with carpal tunnel syndrome is the use of a night brace; a night brace should hold your wrist in a neutral position and only be worn for short-term symptom relief.

If you have mild to moderate carpal tunnel syndrome, stretching exercises and the night brace can help, as can manual therapy of your cervical spine and upper extremity performed by a therapist. Education on the proper setup of your computer, especially the mouse, and how hard you strike the keyboard may also help control your symptoms of pain and loss of feeling.

The literature review for these guidelines found that low-level laser therapy, thermal ultrasound, iontophoresis, and magnets provided no consistent benefit in treating carpal tunnel syndrome. If nonsurgical treatment does not help, you may need surgery. Your physical therapist can help guide your recovery, decreasing your symptoms.



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