

# AAOS recommends a multi-faceted approach to diagnosing carpal tunnel syndrome

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New guidelines approved by the American Academy of Orthopaedic Surgeons (AAOS) Board of Directors recommend the collective use of a thorough patient history and specific physical examination maneuvers, in addition to observation and specific diagnostic tests to more definitively diagnose carpal tunnel syndrome (CTS), a common source of hand numbness and pain affecting approximately 3 million Americans—primarily women—each year.

Citing "moderate evidence," the "Management of Carpal Tunnel Syndrome Evidence-Based Clinical Guidelines" does not recommend the routine use of MRI imaging for CTS diagnosis. The guidelines are available at [orthoguidelines.org](http://orthoguidelines.org).

"One physical examination maneuver is not enough to definitely diagnose [carpal tunnel syndrome](#)," said Brent Graham, MD, a Toronto orthopaedic surgeon and chair of the AAOS Diagnosis and Treatment of Carpal Tunnel Syndrome Work Group. "These guidelines should help doctors make an accurate diagnosis of CTS more easily and with fewer tests. This means treatment, that is based on evidence, can be started earlier and with a greater likelihood of success."

With strong evidence, the guidelines state that thenar atrophy, or diminished thumb muscle mass, is associated with CTS; however, a lack of thenar atrophy is not enough to rule out CTS. The guidelines also recommend not using single results from common tests and maneuvers (muscle testing, nerve stress tests, etc.), and/or medical history and demographic information (sex/gender, ethnicity, co-morbidities, BMI, age, etc.) independently to affirm CTS diagnosis.

Moderate evidence supports that exercise and

physical activity are associated with a decreased risk for developing CTS. Factors that may put patients at risk for CTS include obesity, and to a lesser extent: peri-menopausal status, wrist ratio/index, rheumatoid arthritis, psychosocial factors, gardening, distal upper extremity tendinopathies, hand activity, assembly line work, computer work, vibration, tendonitis, workplace forceful grip/exertion.

For CTS treatment, the guidelines recommend splinting, steroids (oral or injection), the use of ketoprofen phonophoresis gel, and/or magnetic therapy. There was limited evidence to support therapeutic ultrasound or laser therapy for CTS symptoms.

With strong evidence the guidelines recommend surgery, when necessary, to release the transverse carpal ligament—the strong band of connective tissue that covers the top of the carpal wrist structure—to relieve symptoms and improve hand function. There was no "strong evidence" to recommend supervised over unsupervised post-surgical therapy.

The Management of Carpal Tunnel Syndrome Evidence-Based Clinical Guidelines is endorsed by the American Society for Surgery of the Hand.

**More information:** [www.aaos.org/ctsguideline](http://www.aaos.org/ctsguideline)

Provided by American Academy of Orthopaedic Surgeons

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