

Carpal Tunnel Syndrome Surgical Treatments



INDEPENDENT CARE HEALTH PLAN

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Medical Coverage Policy

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Disclaimer

The Coverage Summaries are reviewed by the iCare Medicare Utilization Management Committee. Policies in this document may be modified by a member's coverage document. Clinical policy is not intended to preempt the judgment of the reviewing medical director or dictate to health care providers how to practice medicine. Health care providers are expected to exercise their medical judgment in rendering appropriate care. Identification of selected brand names of devices, tests and procedures in a medical coverage policy is for reference only and is not an endorsement of any one device, test, or procedure over another. Clinical technology is constantly evolving, and we reserve the right to review and update this policy periodically. References to CPT® codes or other sources are for definitional purposes only and do not imply any right to reimbursement or guarantee of claims payment. No part of this publication may be reproduced, stored in a retrieval system or transmitted, in any shape or form or by any means, electronic, mechanical, photocopying or otherwise, without permission from iCare.

Related Medical/Pharmacy Coverage Policies

**Low Level Laser and High Power Laser Therapy Medical Coverage Policy
Skin and Tissue Substitutes**

Related Documents

Please refer to [CMS website](#) for the most current applicable National Coverage Determination (NCD)/Local Coverage Determination (LCD)/Local Coverage Article (LCA)/CMS Online Manual System/Transmittals.

There are no NCD and/or LCDs for Carpal Tunnel Syndrome Surgical Treatments.

Description

Carpal tunnel syndrome (CTS) is a condition that occurs when the median nerve, which runs from the forearm into the palm of the hand, becomes compressed at the wrist. Symptoms usually start gradually, consisting of pain, weakness and/or numbness in the hand and wrist, radiating up the arm. The risk of developing carpal tunnel syndrome may be increased in those who perform repetitive work tasks. Carpal tunnel syndrome is also associated with pregnancy and conditions such as diabetes, rheumatoid arthritis, or thyroid disease.

Initial treatment generally involves resting the affected hand and wrist, avoiding activities that may worsen symptoms and immobilizing the wrist in a splint. Nonsteroidal anti-inflammatory drugs (NSAIDs) or oral steroids may be utilized for pain relief. Corticosteroid injections can also be given to alleviate the swelling and pressure on the median nerve. If conservative treatment is unsuccessful, carpal tunnel release surgery via an endoscopic or open approach may be necessary.

Surgery for CTS involves cutting the transverse carpal ligament, relieving pressure on the median nerve, which in turn reduces symptoms. The conventional surgical approach is open surgery, where an incision is made at the base of the palm, and the surgeon has direct visual access to the ligament. Endoscopic surgery utilizes a small flexible tube with a camera attached and the surgeon views the ligament through the camera.

Ultrasound guided percutaneous carpal tunnel release (PCTR) is proposed as an alternative to endoscopic or open CTS surgery. PCTR procedures combine identification and guidance of carpal tunnel anatomy using ultrasound with minimal incisions. A **thread carpal tunnel release (TCTR)** uses a surgical thread looped around the transverse carpal ligament to release the ligament while not damaging adjacent tissue.¹⁰

Coverage Determination

iCare follows the CMS requirements that only allows coverage and payment for services that are reasonable and necessary for the diagnosis and treatment of illness or injury or to improve the functioning of a malformed body member except as specifically allowed by Medicare.

In interpreting or supplementing the criteria above and in order to determine medical necessity consistently, iCare may consider the following criteria:

Carpal tunnel release surgery (endoscopic or open approach) will be considered medically reasonable and necessary when all the following requirements are met:

- Symptoms of sensory loss or paresthesia occurs in the distribution of the median nerve

AND

- CTS, as indicated by **one or more** of the following:
 - There is high clinical suspicion of CTS with documentation of clinical signs and symptoms in the medical records; **OR**

- Electrodiagnostic testing confirms CTS (median nerve motor or sensory dysfunction); **OR**
- Symptoms are temporarily relieved after a steroid injection of the carpal tunnel

AND

- It is unlikely that conservative therapy will successfully resolve symptoms, as indicated by at least one of the following:
 - Electrodiagnostic testing shows moderate-severe findings of CTS; **OR**
 - Failed response to a 4-week trial of a wrist splint; **OR**
 - Symptoms of CTS preceded a distal radial fracture which requires an operation; **OR**
 - Thenar atrophy

AND

- The member is not pregnant or within 3 months post-partum

Repeat carpal tunnel release surgery (endoscopic or open approach) will be considered medically reasonable and necessary following failure of a previous carpal tunnel release surgery.

The use of the criteria in this Medicare Advantage Medical Coverage Policy provides clinical benefits highly likely to outweigh any clinical harms. Services that do not meet the criteria above are not medically necessary and thus do not provide a clinical benefit. Medically unnecessary services carry risks of adverse outcomes and may interfere with the pursuit of other treatments which have demonstrated efficacy.

Coverage Limitations

[US Government Publishing Office. Electronic code of federal regulations: part 411 – 42 CFR § 411.15 - Particular services excluded from coverage](#)

ADJUNCTIVE TECHNIQUES

Summary of Evidence

The following **adjunctive techniques to carpal tunnel release surgery** will not be considered medically reasonable and necessary:

- Epineurotomy; **OR**
- Flexor tenosynovectomy; **OR**
- Lengthening/reconstruction of the flexor retinaculum (transverse carpal ligament); **OR**
- Neurolysis^{1,5}

A review of the current medical literature shows that the evidence is insufficient to determine that these services are standard medical treatment. There remains an absence of randomized, blinded clinical studies examining benefit and long-term clinical outcomes establishing the value of this service in clinical management.

Strong evidence supports that surgical release of the transverse carpal ligament should relieve symptoms and improve function.¹ Open carpal tunnel release is the current standard for surgical treatment for CTS. Endoscopic techniques have been suggested to reduce postoperative pain, allow for faster recovery of function, and shorter return to work time.¹⁰

THREAD CARPAL TUNNEL RELEASE (TCTR)

Summary of Evidence

A review of the current medical literature shows that the evidence is insufficient to determine that **Thread Carpal Tunnel Release (TCTR)** is standard medical treatment. There remains an absence of randomized, blinded clinical studies examining benefit and long-term clinical outcomes establishing the value of this service in clinical management.

TCTR compared with open surgery or endoscopic surgery cannot be determined because available studies (2 nonrandomized comparison studies, 1 cohort study with historic controls, and 1 case series) assess too few patients per comparison and provide very-low-quality evidence. Independent randomized controlled trials comparing TCTR with other CTS treatments and reporting on patient-oriented outcomes at longer-term (>1 year) follow-up are needed to assess comparative effectiveness, but none are ongoing.⁷

All studies provide very-low-quality evidence. Studies are at a high risk of bias due to single-center focus, small study size, and lack of independent or parallel controls, blinding, and randomization. One cohort study compared outcomes for patients treated using TCTR with outcomes from a historical control of patients who underwent open and endoscopic surgery more than a decade ago, and we cannot account for the possibility that disease severity differed between patient groups or for clinical care practice changes over time. One nonrandomized comparison study compared pain and function after TCTR with the combined pain and function of healthy and CPT wrists that did not undergo treatment for CPT, thus limiting result interpretation. Studies did not report on some key patient-oriented outcomes (e.g., quality of life, retreatment rates).⁷

ULTRASOUND GUIDED PERCUTANEOUS CARPAL TUNNEL RELEASE (PCTR)

Summary of Evidence

A review of the current medical literature shows that the evidence is insufficient to determine that **Ultrasound Guided Percutaneous Carpal Tunnel Release (PCTR)** is a standard medical treatment. There

remains an absence of randomized, blinded clinical studies examining benefit and long-term clinical outcomes establishing the value of this service in clinical management.

Open carpal tunnel release is the current standard for surgical treatment for CTS. Endoscopic techniques have been suggested to reduce postoperative pain, allow for faster recovery of function, and shorter return to work time. PCTR combines inexpensive ultrasound equipment with minimally invasive incisions; however, the safety and effectiveness of PCTR needs to be established.¹⁰ There is a large, moderate-quality body of evidence suggests that overall, OCTR and ECTR are comparable for relieving CTS symptoms and improving hand function in patients with CTS.¹¹

Coding Information

Any codes listed on this policy are for informational purposes only. Do not rely on the accuracy and inclusion of specific codes. Inclusion of a code does not guarantee coverage and/or reimbursement for a service or procedure.

CPT® Code(s)	Description	Comments
29848	Endoscopy, wrist, surgical, with release of transverse carpal ligament	
64721	Neuroplasty and/or transposition; median nerve at carpal tunnel	
64999	Unlisted procedure, nervous system	
76942	Ultrasonic guidance for needle placement (eg, biopsy, aspiration, injection, localization device), imaging supervision and interpretation	
CPT® Category III Code(s)	Description	Comments
No code(s) identified		
HCPCS Code(s)	Description	Comments
No code(s) identified		

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Change Summary

- 08/24/2023 New Policy.

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