CQ HAND + UPPER LIMB
SPECIALIST ORTHOPAEDIC SURGEON

EVIDENCE SUMMARY

Radial Tunnel Syndrome

title: “Radial Tunnel Syndrome” slug: radial-tunnel-syndrome region: elbow audience: patient mesh_terms: [“Cubital Tunnel Syndrome”, “Nerve Compression Syndromes”, “Ulnar Nerve”, “Decompression, Surgical”, “Radial Neuropathy”, “Radial Nerve”, “Elbow”, “Elbow Joint”] article_count: 297 model_used: Qwen3.6-35B-A3B-Q8_0.gguf generated_at: ‘2026-06-13T09:53:29+00:00’ key_articles: - title: “Radial Tunnel Syndrome: Review and Best Evidence” ref_num: 1 evidence_tier: paper evidence_level: 4 doi: 10.5435/jaaos-d-23-00314 year: 2023 - title: “Uncommon Upper Extremity Compression Neuropathies” ref_num: 2 evidence_tier: paper evidence_level: 4 doi: 10.1016/j.hcl.2013.04.014 year: 2013 - title: “Bony encasement of the ulnar nerve secondary to heterotopic ossification of the elbow: an evaluation of long-term outcomes” ref_num: 3 evidence_tier: paper evidence_level: 4 doi: 10.1016/j.jse.2023.12.003 year: 2024 - title: “Incidence and operations of median, ulnar and radial entrapment neuropathies in Finland: a nationwide register study” ref_num: 4 evidence_tier: paper evidence_level: 3 doi: 10.1177/1753193419886741 year: 2019 - title: “Radial Tunnel Syndrome” ref_num: 5 evidence_tier: paper evidence_level: 5 doi: 10.1016/j.jhsa.2010.03.020 year: 2010 - title: “RADIAL TUNNEL SYNDROME” ref_num: 6 evidence_tier: paper doi: 10.1016/s0749-0712(21)00357-7 year: 1996 - title: “Patient-Rated Outcome of Ulnar Nerve Decompression: A Comparison of Endoscopic and Open In Situ Decompression” ref_num: 9 evidence_tier: paper evidence_level: 3 doi: 10.1016/j.jhsa.2009.05.014 year: 2009 - title: “Minimal-Incision In Situ Ulnar Nerve Decompression at the Elbow” ref_num: 10 evidence_tier: paper evidence_level: 4 doi: 10.1016/j.hcl.2013.08.019 year: 2014 - title: “Radial Tunnel Syndrome” ref_num: 11 evidence_tier: paper evidence_level: 5 doi: 10.1016/j.ocl.2012.07.022 year: 2012 - title: “Unusual Compression Neuropathies of the Forearm, Part I: Radial Nerve” ref_num: 12 evidence_tier: paper evidence_level: 5 doi: 10.1016/j.jhsa.2009.10.016 year: 2009 - title: “Cubital tunnel syndrome. Treatment by medial epicondylectomy.” ref_num: 13 evidence_tier: paper evidence_level: 4 doi: 10.2106/00004623-198062060-00016 year: 1980 - title: “High radial nerve entrapment neuropathy: an anatomical cadaver study and case report” ref_num: 14 evidence_tier: case_report evidence_level: 5 doi: 10.1016/j.jse.2025.02.060 year: 2025 - title: “Ulnar Neuropathy at the Elbow” ref_num: 15 evidence_tier: paper evidence_level: 4 doi: 10.1016/j.hcl.2013.04.013 year: 2013 - title: “The 7 Structures Distal to the Elbow That Are Critical to Successful Anterior Transposition of the Ulnar Nerve” ref_num: 17 evidence_tier: paper evidence_level: 5 doi: 10.1177/1558944718771390 year: 2018 - title: “Cubital tunnel syndrome: Comparative results of a multicenter study of 4 surgical techniques with a mean follow-up of 92 months” ref_num: 20 evidence_tier: paper evidence_level: 4 doi: 10.1016/j.otsr.2014.03.009 year: 2014 - title: “Ulnar nerve palsy caused by synovial protrusion in synovial chondromatosis of the elbow: a case report and literature review” ref_num: 21 evidence_tier: case_report evidence_level: 4 doi: 10.1177/1758573216683396 year:

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2016 - title: “Nomenclature of the radial nerve: distinguishing between the deep branch of the radial nerve and the posterior interosseous nerve” ref_num: 26 evidence_tier: paper evidence_level: 5 doi: 10.1177/17531934241254706 year: 2024 - title: “MR Imaging Features of Radial Tunnel Syndrome: Initial Experience” ref_num: 27 evidence_tier: paper evidence_level: 4 doi: 10.1148/radiol.2401050028 year: 2006 - title: “Rates of Complications and Secondary Surgeries After In Situ Cubital Tunnel Release Compared With Ulnar Nerve Transposition: A Retrospective Review” ref_num: 28 evidence_tier: paper evidence_level: 4 doi: 10.1016/j.jhsa.2017.01.020 year: 2017 - title: “Recurrent or Persistent Cubital Tunnel Syndrome” ref_num: 29 evidence_tier: paper evidence_level: 4 doi: 10.1016/j.jhsa.2011.11.024 year: 2012 - title: “Chronic Structural Adaptations of the Shoulder and Elbow Are Correlated in Professional Baseball Pitchers” ref_num: 35 evidence_tier: paper evidence_level: 3 doi: 10.1177/03635465251317509 year: 2025 - title: “Compressive Ulnar Neuropathies at the Elbow: II. Treatment” ref_num: 36 evidence_tier: paper evidence_level: 5 doi: 10.5435/00124635-199809000-00004 year: 1998 - title: “Comparative study between minimal medial epicondylectomy and anterior subcutaneous transposition of the ulnar nerve for cubital tunnel syndrome” ref_num: 37 evidence_tier: paper evidence_level: 3 doi: 10.1016/j.jse.2005.10.007 year: 2006 - title: “Dynamic analysis of the ulnar nerve and cubital tunnel morphology using ultrasonography: a cadaveric study” ref_num: 38 evidence_tier: paper evidence_level: 5 doi: 10.1016/j.jse.2022.05.026 year: 2022 - title: “Incidence of Re-Operation and Subjective Outcome Following in Situ Decompression of the Ulnar Nerve at the Cubital Tunnel” ref_num: 39 evidence_tier: paper evidence_level: 4 doi: 10.1177/1753193408101467 year: 2009 - title: “Endoscopic Versus Open Cubital Tunnel Release” ref_num: 40 evidence_tier: paper evidence_level: 1 doi: 10.1177/1558944715616097 year: 2016 - title: “Endoscopic Anatomical Nerve Observation and Minimally Invasive Management of Cubital Tunnel Syndrome” ref_num: 42 evidence_tier: paper evidence_level: 4 doi: 10.1177/1753193408094443 year: 2008 - title: “Ulnar Tunnel Syndrome, Radial Tunnel Syndrome, Anterior Interosseous Nerve Syndrome, and Pronator Syndrome” ref_num: 44 evidence_tier: paper evidence_level: 5 doi: 10.5435/jaaos-d-16-00010 year: 2017 - title: “Shoulder position increases ulnar nerve strain at the elbow of patients with cubital tunnel syndrome” ref_num: 45 evidence_tier: paper evidence_level: 4 doi: 10.1016/j.jse.2015.01.014 year: 2015 - title: “Quantitative magnetic resonance imaging analysis of the cross-sectional areas of the anconeus epitrochlearis muscle, cubital tunnel, and ulnar nerve with the elbow in extension in patients with and without ulnar neuropathy” ref_num: 46 evidence_tier: paper evidence_level: 4 doi: 10.1016/j.jse.2018.03.021 year: 2018 - title: “Dynamic Evaluation of Intraneural Microvascularity of the Ulnar Nerve Using Contrast-Enhanced Ultrasonography in Patients With Cubital Tunnel Syndrome” ref_num: 47 evidence_tier: paper evidence_level: 3 doi: 10.1016/j.jhsa.2021.06.024 year: 2022 - title: “Association Between the Elbow Flexion Test and Extraneural Pressure Inside the Cubital Tunnel” ref_num: 51 evidence_tier: paper evidence_level: 3 doi: 10.1016/j.jhsa.2010.11.013 year: 2011 - title: “Is Elbow Arthroscopy Safe in Patients with a Subluxating ulnar nerve or Previous Ulnar Nerve Transposition? (SS-24)” ref_num: 52 evidence_tier: paper evidence_level: 4 doi: 10.1016/j.arthro.2009.04.024 year: 2009 - title: “Biomechanical analysis of ulnar nerve gliding and elongation: implications for nonsurgical ulnar nerve release in cubital tunnel syndrome” ref_num: 53 evidence_tier: paper evidence_level: 4 doi: 10.5397/cise.2024.00934 year: 2025 - title: “Comparative study of surgical treatment of ulnar nerve compression at the elbow” ref_num: 54 evidence_tier: paper evidence_level: 3 doi: 10.1016/j.jse.2009.10.014 year: 2010 - title: “A cadaveric study of ulnar nerve strain at the elbow associated with cubitus valgus/varus deformity” ref_num: 57 evidence_tier: paper evidence_level: 5 doi: 10.1186/s12891-022-05786-9 year: 2022 - title: “Nerve injuries in the throwing elbow” ref_num: 58 evidence_tier: paper evidence_level: 5 doi: 10.1016/j.csm.2004.04.012 year: 2004 - title:

"Dynamic Compression of the Ulnar Nerve Associated With the Anconeus Epitrochlearis Muscle: Do We Really Know Everything?" ref_num: 64 evidence_tier: paper evidence_level: 4 doi: 10.1016/j.jhsg.2022.11.002 year: 2023 - title: "Predicting Revision Following In Situ Ulnar Nerve Decompression for Patients With Idiopathic Cubital Tunnel Syndrome" ref_num: 66 evidence_tier: paper evidence_level: 3 doi: 10.1016/j.jhsa.2015.12.012 year: 2016 - title: "Magnetic Resonance Imaging of the Elbow in Athletes" ref_num: 67 evidence_tier: paper evidence_level: 5 doi: 10.1016/j.csm.2010.06.004 year: 2010 - title: "Diagnosis of Ulnar Neuropathy at the Elbow Using Ultrasound – A Comparison to Electrophysiologic Studies" ref_num: 69 evidence_tier: paper evidence_level: 4 doi: 10.1016/j.jhsa.2023.08.014 year: 2023 synthesis_version: "v2" verifier_status: skipped

Overview

- Radial tunnel syndrome is a compression neuropathy of the radial nerve [2].
- Most publications regarding uncommon upper extremity compression syndromes, including radial tunnel syndrome, are small retrospective series or case reports [2].
- Treatment decisions for uncommon upper extremity compression syndromes are not typically based on high levels of evidence [2].
- Nonsurgical management is the first-line treatment for radial tunnel syndrome [1].
- Surgical decompression is a viable option for refractory cases of radial tunnel syndrome [1].
- There is ongoing controversy regarding the diagnosis and outcomes of radial tunnel syndrome [1].
- High radial nerve entrapment neuropathy cases resistant to conservative treatment are advocated for surgical intervention [14].
- Surgical treatment for high radial nerve entrapment neuropathy requires dissecting the entire length of the fibrous tunnel [14].

Anatomy & Pathophysiology

- Bony encasement of the ulnar nerve can occur secondary to heterotopic ossification of the elbow [3].
- Chronic structural adaptations of the shoulder and elbow are correlated in professional baseball pitchers, but adaptations in shoulder strength or range of motion are not significantly related to chronic structural adaptations of the elbow [35].
- The humeral trochlea protrudes into the cubital tunnel during elbow flexion, causing dynamic morphologic changes in the ulnar nerve [38].
- Shoulder position increases ulnar nerve strain at the elbow in patients with cubital tunnel syndrome [45].
- Increased elbow flexion influences the intraneural blood flow of the ulnar nerve in patients with cubital tunnel syndrome [47].

- The mechanism of symptom provocation by the elbow flexion test in cubital tunnel syndrome cannot be explained simply by dynamic pressure in the cubital tunnel, suggesting other pathophysiological factors contribute [51].
- Ulnar nerve gliding is most severe during passive wrist movement in elbow flexion and forearm supination [53].
- A cadaveric study could not detect a definitive effect of elbow deformity (cubitus valgus/varus) on ulnar nerve strain or demonstrate the extent of acceptable clinical elbow deformity [57].
- The throwing elbow is a common source of nerve injuries due to the unique combination of anatomy, high forces, and sheer repetition associated with throwing sports [58].
- Dynamic ulnar nerve compression at the elbow can be caused by the anconeus epitrochlearis muscle, an uncommon disorder with pathophysiologic mechanisms that remain to be elucidated [64].

Classification

- Radial tunnel syndrome is defined as a pain syndrome caused by compression of the posterior interosseous nerve at the proximal forearm [11].
- Radial tunnel syndrome is considered an illness construct based on speculative pathophysiology with no verifiable pathophysiology or accepted reference standard for diagnosis [5].
- Radial tunnel syndrome and posterior interosseous nerve syndrome are viewed as a single condition presenting along a spectrum of nerve entrapment [26].
- Radial tunnel syndrome and posterior interosseous nerve syndrome are distinct entities within the review of history, anatomy, and clinical presentation [6].
- Radial tunnel syndrome is classified as an unusual compression neuropathy of the forearm [12].
- Radial tunnel syndrome is classified as an uncommon compression syndrome of the radial nerve [2].
- Radial neuropathies are rare compared to other entrapment neuropathies [4].

Clinical Presentation

- Radial tunnel syndrome is a pain syndrome caused by compression of the posterior interosseous nerve at the proximal forearm [11].
- Radial tunnel syndrome is an illness construct based on a speculative pathophysiology with no verifiable pathophysiology or accepted reference standard for diagnosis [5].
- Radial tunnel syndrome and posterior interosseous nerve syndrome are viewed as a single condition presenting along a spectrum of nerve entrapment [26].
- The deep branch of the radial nerve and the posterior interosseous nerve are distinct entities requiring consistent terminology distinction [26].
- Radial neuropathies are rare [4].

- Muscle denervation edema or atrophy along the distribution of the posterior interosseous nerve is the most common MR finding in radial tunnel syndrome [27].

Investigations

- Radial tunnel syndrome is an illness construct based on a speculative pathophysiology with no verifiable pathophysiology or accepted reference standard for diagnosis [5].
- Radial tunnel syndrome is a pain syndrome caused by compression of the posterior interosseous nerve at the proximal forearm [11].
- Muscle denervation edema or atrophy along the distribution of the posterior interosseous nerve is the most common MR finding in radial tunnel syndrome [27].
- MRI has emerged as the imaging modality of choice for the evaluation of elbow pain in the athlete due to its high spatial resolution, excellent soft tissue contrast, and multiplanar imaging capabilities [67].
- Clinical evaluation is paramount in the diagnosis of cubital tunnel syndrome because electrodiagnostic testing often is not sufficiently sensitive to detect changes associated with the syndrome [10].
- Ultrasound may be able to better identify patients with early stages of ulnar neuropathy with negative electrodiagnostic findings [69].
- MRI is an effective diagnostic modality, and clinicians should be aware of primary synovial chondromatosis as a causative factor of cubital tunnel syndrome [21].
- Only a small number of individuals with MRI evidence of an anconeus epitrochlearis muscle (AEM) had clinical evidence of ulnar neuropathy [46].
- Radial neuropathies are rare [4].
- Ulnar neuropathies are more frequent in men [4].

Treatment

NON-OPERATIVE MANAGEMENT

- Nonsurgical management is the first-line treatment for radial tunnel syndrome [1].
- Initial treatment of most compressive neuropathies at the elbow is nonoperative, consisting of rest and avoidance of elbow flexion [36].
- Most cases of ulnar nerve compression improve with nonsurgical treatment [43].
- A prolonged nonsurgical approach is warranted in most cases for median nerve or anterior interosseous nerve (AIN) compression, as surgical decompression is rarely indicated [44].

OPERATIVE MANAGEMENT: RADIAL TUNNEL SYNDROME

- Surgical decompression remains a viable option for radial tunnel syndrome cases that are refractory to nonsurgical management [1].

- Surgery is advocated for high radial nerve entrapment neuropathy cases that are resistant to conservative treatment [14].
- In cases of high radial nerve entrapment requiring surgery, it is important to dissect the entire length of the fibrous tunnel [14].

OPERATIVE MANAGEMENT: CUBITAL TUNNEL SYNDROME (GENERAL)

- Treatment decisions for cubital tunnel syndrome are not typically based on high levels of evidence, as most publications are small retrospective series or case reports [2].
- Surgery was effective in treating cubital tunnel syndrome, with more than 90% of patients cured or showing improvement in a multicenter study with a mean follow-up of 92 months [20].
- Most cases of ulnar nerve compression get better with surgical decompression [43].
- Reoperation after primary surgery of cubital tunnel syndrome gave satisfactory results for patients who fail conservative treatment [18].

OPERATIVE TECHNIQUES: IN SITU DECOMPRESSION

- In situ decompression of the ulnar nerve is a reliable treatment for cubital tunnel syndrome with a low failure rate [39].
- In situ decompression represents an efficient and safe method for cubital tunnel syndrome management [54].
- The endoscopic technique has proven effective in the treatment of cubital tunnel syndrome [42].

OPERATIVE TECHNIQUES: TRANSPOSITION AND EPICONDYLECTOMY

- Medial epicondylectomy is recommended for patients with cubital tunnel syndrome associated with abnormal nerve-conduction velocity [13].
- Both minimal medial epicondylectomy and anterior subcutaneous transposition can be used for the treatment of cubital tunnel syndrome with a high rate of satisfaction [37].
- Partial epicondylectomy represents an efficient and safe method for cubital tunnel syndrome management [54].

OPERATIVE TECHNIQUES: COMPARATIVE OUTCOMES

- Current evidence suggests that different surgical methods to treat ulnar neuropathy at the elbow do not differ in their clinical outcomes [15].
- There is similar effectiveness between endoscopic (ECTuR) and open (OCTuR) techniques for the treatment of idiopathic cubital tunnel syndrome, with similar outcomes, complication profiles, and reoperation rates [40].
- The patient-reported outcome of surgical treatment of cubital tunnel syndrome is good but is affected by preoperative symptom severity [9].

OPERATIVE CONSIDERATIONS AND DIAGNOSIS

- Clinical evaluation is paramount in the diagnosis of cubital tunnel syndrome because electrodiagnostic testing often is not sufficiently sensitive to detect changes associated with the syndrome [10].
- Elbow arthroscopy is not necessarily contraindicated in patients with a subluxating or transposed ulnar nerve [52].

Complications

- Radial tunnel syndrome is an illness construct based on a speculative pathophysiology with no verifiable pathophysiology or accepted reference standard for diagnosis [5].
- Most publications regarding uncommon compression syndromes of the radial, ulnar, and median nerves are small retrospective series or case reports [2].
- Treatment decisions for uncommon compression syndromes are not typically based on high levels of evidence [2].
- Radial neuropathies are rare [4].
- The short-term complication rate of cubital tunnel surgery is 3.2% [28].
- The short-term complication rate of cubital tunnel surgery is higher for patients with chronic kidney disease [28].
- Reoperation after primary surgery of cubital tunnel syndrome gave satisfactory results for patients who fail conservative treatment [18].
- Results of revision surgery for recurrent or persistent cubital tunnel syndrome are less predictable and satisfying than primary surgery [29].
- For patients with idiopathic cubital tunnel syndrome, the risk of revision surgery following in situ ulnar nerve decompression is low [66].
- The risk of revision surgery following in situ ulnar nerve decompression for idiopathic cubital tunnel syndrome is increased in patients younger than 50 years [66].
- Poor outcomes and unnecessary revision surgeries for cubital tunnel syndrome can be avoided with intraoperative attention to 7 structures distal to the medial epicondyle [17].

Recovery

- Surgical decompression is a viable option for refractory cases of radial tunnel syndrome despite ongoing controversy regarding diagnosis and outcomes [1].
- Most publications on uncommon compression syndromes of the radial nerve are small retrospective series or case reports, and treatment decisions are not typically based on high levels of evidence [2].
- Radial neuropathies are rare [4].

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Key Evidence

- [L4] The article reviews the anatomy, diagnosis, and treatment of radial tunnel syndrome, noting that while nonsurgical management is first-line, surgical decompression remains a viable option for refractory cases despite ongoing controversy regarding diagnosis and outcomes. (10.5435/jaaos-d-23-00314)
- [L4] This article reviews uncommon compression syndromes of the radial, ulnar, and median nerves, noting that most publications are small retrospective series or case reports and treatment decisions are not typically based on high levels of evidence. (10.1016/j.hcl.2013.04.014)
- [L4] This treatment approach leads to superior range of motion, improved or resolved ulnar neuropathy, and good to excellent long-term functional outcomes. (10.1016/j.jse.2023.12.003)
- [L3] Ulnar and radial neuropathies were less common, with ulnar neuropathies more frequent in men and radial neuropathies being rare. (10.1177/1753193419886741)
- [L5] Radial tunnel syndrome is an illness construct based on a speculative pathophysiology with no verifiable pathophysiology or accepted reference standard for diagnosis. (10.1016/j.jhsa.2010.03.020)
- [Paper] This article is a review of the history, anatomy, and clinical presentation of radial tunnel syndrome (RTS) and posterior interosseous nerve syndrome (PINS). (10.1016/s0749-0712(21)00357-7)
- [L3] The patient-reported outcome of surgical treatment of cubital tunnel syndrome is good but is affected by preoperative symptom severity. (10.1016/j.jhsa.2009.05.014)
- [L4] Clinical evaluation is paramount in the diagnosis of cubital tunnel syndrome because electrodiagnostic testing often is not sufficiently sensitive to detect changes associated with the syndrome. (10.1016/j.hcl.2013.08.019)
- [L5] Radial tunnel syndrome is a pain syndrome caused by compression of the posterior interosseous nerve at the proximal forearm. (10.1016/j.ocl.2012.07.022)
- [L5] This article is a review examining unusual compression neuropathies of the forearm, specifically focusing on the radial nerve, including posterior interosseous nerve syndrome, radial tunnel syndrome, and superficial radial nerve compression (Wartenberg's syndrome). (10.1016/j.jhsa.2009.10.016)
- [L4] The procedure is recommended for patients with cubital tunnel syndrome associated with abnormal nerve-conduction velocity. (10.2106/00004623-198062060-00016)
- [Case_report] The authors advocate for surgery in high radial nerve entrapment neuropathy cases resistant to conservative treatment, emphasizing the importance of dissecting the entire length of the fibrous tunnel. (10.1016/j.jse.2025.02.060)
- [L4] Current evidence suggests that different surgical methods to treat ulnar neuropathy at the elbow do not differ in their clinical outcomes. (10.1016/j.hcl.2013.04.013)
- [L5] Poor outcomes and unnecessary revision surgeries for cubital tunnel syndrome can be avoided with intraoperative attention to 7 structures distal to the medial epicondyle. (10.1177/1558944718771390)
- [L4] Surgery was effective in treating cubital tunnel syndrome with more than 90% of patients cured or showing improvement. (10.1016/j.otsr.2014.03.009)

- [Case_report] MRI is an effective diagnostic modality, and clinicians should be aware of primary synovial chondromatosis as a causative factor of cubital tunnel syndrome. (10.1177/1758573216683396)
- [L5] The authors advocate for consistent use of the terminology distinguishing the deep branch of the radial nerve (DBRN) and the posterior interosseous nerve (PIN), and recommend viewing radial tunnel syndrome and posterior interosseous nerve syndrome as a single condition presenting along a spectrum of nerve entrapment. (10.1177/17531934241254706)
- [L4] Muscle denervation edema or atrophy along the distribution of the posterior interosseous nerve is the most common MR finding in radial tunnel syndrome. (10.1148/radiol.2401050028)
- [L4] The short-term complication rates of cubital tunnel surgery are low (3.2%), but higher for patients with chronic kidney disease. (10.1016/j.jhsa.2017.01.020)
- [L4] Results of revision surgery for recurrent or persistent cubital tunnel syndrome are less predictable and satisfying than primary surgery. (10.1016/j.jhsa.2011.11.024)
- [L3] However, no significant relationships between adaptations in shoulder strength or ROM were related to chronic structural adaptations of the elbow. (10.1177/03635465251317509)
- [L5] Initial treatment of most compressive neuropathies at the elbow is nonoperative, consisting of rest and avoidance of elbow flexion. (10.5435/00124635-199809000-00004)
- [L3] Both methods can be used for the treatment of cubital tunnel syndrome with a high rate of satisfaction. (10.1016/j.jse.2005.10.007)
- [L5] The humeral trochlea protrudes into the cubital tunnel during elbow flexion, causing dynamic morphologic changes in the ulnar nerve. (10.1016/j.jse.2022.05.026)
- [L4] In situ decompression of the ulnar nerve is a reliable treatment for cubital tunnel syndrome with a low failure rate. (10.1177/1753193408101467)
- [L1] The current study demonstrates similar effectiveness between the endoscopic (ECTuR) and open (OCTuR) techniques for treatment of idiopathic cubital tunnel syndrome with similar outcomes, complication profiles, and reoperation rates. (10.1177/1558944715616097)
- [L4] The technique has proven effective in the treatment of cubital tunnel syndrome. (10.1177/1753193408094443)
- [L5] Surgical decompression of the median nerve or the AIN in the forearm is rarely indicated; a prolonged nonsurgical approach is warranted in most cases. (10.5435/jaaos-d-16-00010)
- [L4] To the best of our knowledge, this is the first study showing that shoulder position changes the ulnar nerve strain around the elbow in living patients with CubTS. (10.1016/j.jse.2015.01.014)
- [L4] Only a small number of individuals with MRI evidence of an AEM had clinical evidence of ulnar neuropathy. (10.1016/j.jse.2018.03.021)
- [L3] Increased elbow flexion in patients with CuTS influences the intraneural blood flow of the ulnar nerve. (10.1016/j.jhsa.2021.06.024)
- [L3] The mechanism of provocation of symptoms of cubital tunnel syndrome by the elbow flexion test could not be explained simply by dynamic pressure in the cubital tunnel, and other pathophysiological factors could also be contributing. (10.1016/j.jhsa.2010.11.013)

- [L4] Elbow arthroscopy is not necessarily contraindicated in patients with a subluxating or transposed ulnar nerve. (10.1016/j.arthro.2009.04.024)
- [L4] Ulnar nerve gliding was most severe during passive wrist movement in elbow flexion and forearm supination. (10.5397/cise.2024.00934)
- [L3] In situ decompression and partial epicondylectomy both represent efficient and safe methods for cubital tunnel syndrome management. (10.1016/j.jse.2009.10.014)
- [L5] The study could not detect a definitive effect of elbow deformity on ulnar nerve strain or demonstrate the extent of acceptable clinical elbow deformity. (10.1186/s12891-022-05786-9)
- [L5] The throwing elbow is a common source of nerve injuries due to the unique combination of anatomy, high forces, and sheer repetition associated with throwing sports. (10.1016/j.csm.2004.04.012)
- [L4] Dynamic ulnar nerve compression at the elbow due to the anconeus epitrochlearis muscle is an uncommon, little-known disorder with much remaining to be elucidated about its incidence and pathophysiologic mechanisms. (10.1016/j.jhsg.2022.11.002)
- [L3] For patients with idiopathic cubital tunnel syndrome, the risk of revision surgery following in situ ulnar nerve decompression is low, but increased in patients younger than 50 years. (10.1016/j.jhsa.2015.12.012)
- [L5] MRI has emerged as the imaging modality of choice for the evaluation of elbow pain in the athlete due to its high spatial resolution, excellent soft tissue contrast, and multiplanar imaging capabilities. (10.1016/j.csm.2010.06.004)
- [L4] Ultrasound may be able to better identify patients with early stages of ulnar neuropathy with negative electrodiagnostic findings. (10.1016/j.jhsa.2023.08.014)

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