

A P&S Report Checklist ✓

[L.C. 139.2 (J)-(2)&(3), (k)-(5), 4060(b)(1), 4062 (d)(2), 4068, 8 CCR WCAB 10606 & 8 CCR 9785]

Upper Extremities Peripheral Nerve Disorders Impairments (PND)

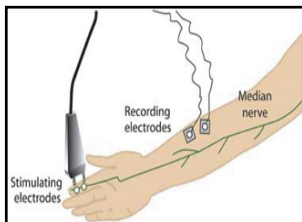
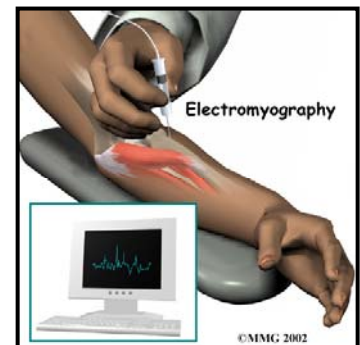
It is the purpose of the AMA Guides to be used for the consistent and reliable acquisition of medical information, through a single set of standards. When clinical findings are fully described, any knowledgeable observer may check the findings with the Guides criteria and determine the proper calculation of impairment. – AMA Guides, Chapters 1 & 2- page 18.

Rating Carpal Tunnel Syndrome- AMA Guides, pg. 495

1. Impairment Rating of Entrapment/Compression Neuropathies – AMA Guides, pgs. 493 to 495
 - 1.1. Proper clinical examination and calculation of impairment for post-surgical carpal tunnel syndrome is addressed in this section.
2. AMA Guides, pg. 495: “...**following surgical decompression 3 following scenarios can be present:**
 - 2.1. Positive clinical findings of median nerve dysfunction and electrical conduction delays(s) are rated according to sensory/motor deficits. Peripheral Nerve Disorders Impairment: - AMA Guides, pg. 480
 - 2.2. Residual Carpal tunnel syndrome is still present – impairment of 05% UEI may be justified.
 - 2.3. Normal clinical findings, including 2-point discrimination – no objective basis for an impairment rating.
 - 2.3.1. Evaluating Physician is warned not to combine Section 16.5 Impairments with grip and pinch Impairment values from Section 16.8 – AMA Guides, pg.507.
3. AMA Guides requires that physicians, before estimating the extent of any impairment, establish an accurate diagnosis. The primary requirement is the confirmation of the presence or absence of specific pathology or loss of organ function. Neurodiagnostic studies are an integral part of this process. Neurodiagnostic testing is essential as an adjunct to the clinical examination in order to determine the diagnosis on which the impairment is based. Electrodiagnostic tests can be necessary to localize neurologic lesions affecting the peripheral nerves. The simple determination of a diagnosis is not sufficient to assess the level of impairment or disability. Electrodiagnostic Testing is necessary in order to document the degree of neurologic deficit. AMA Disability Evaluation, pgs .442 - 445. AMA Guides, pg.480.

Board Certified Technician (Physician) In Electromyography

4. The AMA Guides requires objective verification and confirmation of subjective complaints. Neurodiagnostic testing has been advocated to confirm these subjective complaints. **The Guides recommends that technicians be certified by The American Board of Neuromuscular & Electrodiagnostic Medicine (<http://www.aanem.org/>) and that the testing be done in an environment, meeting the guidelines of the American Association of Electrodiagnostic Medicine. Unequivocal electrodiagnostic evidence of acute nerve root pathology includes the presence of multiple positive sharp waves or fibrillation potentials in muscles innervated by one nerve root. However, the quality of the person performing and interpreting the study is critical. **Only a licensed physician qualified by reason of education, training and experience in these procedures should perform electromyography.** AMA Disability Evaluation pg. 459; AMA Guides, pgs. 18, 307, 382 & 493**



- 4.1. “Nerve conduction and needle electromyography (EMG) studies help to determine which nerves are involved and their anatomic location. Also evident will be whether sensory, motor, or both fibers are predominantly involved and whether axonal degeneration, demyelination, or a combination of both is present. Skillful differentiation of peripheral neuropathy and neuromuscular disorders may also be possible. Expert neuromuscular knowledge and understanding of pathologic manifestations of disease processes are necessary for the appropriate application and performance of these tests, particularly the EMG. These tests are objective and require minimal cooperation from the individual being tested. They reflect pathology in the largest, fastest-conducting nerve fibers. The interpretation of these tests must be correlated with a detailed neurologic evaluation. AMA Guides, pg. 307.

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Upper Extremities Peripheral Nerve Disorders Impairments (PND)

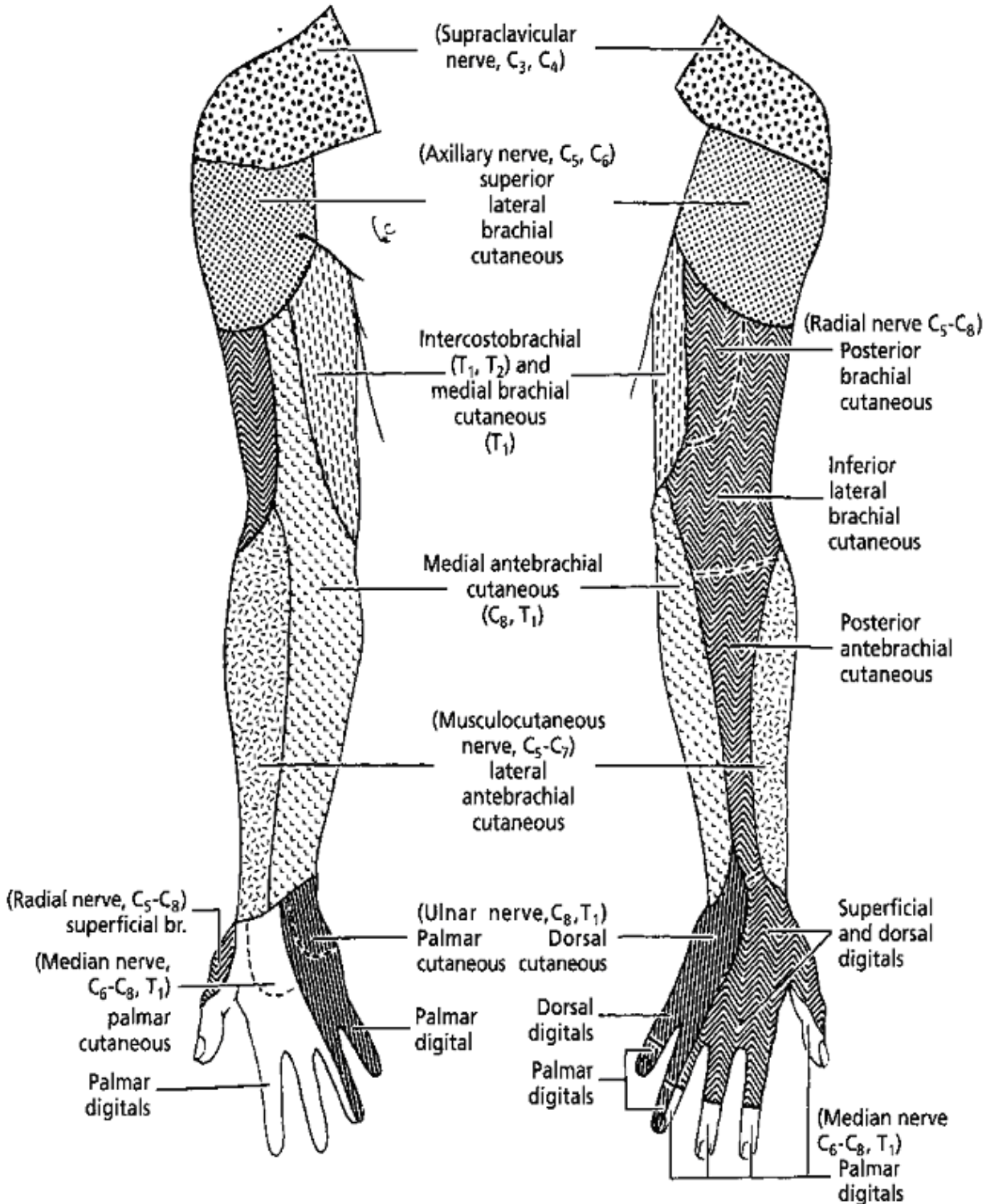
- 4.2. *“It must be remembered that many abnormalities found on neurologic examination are subjective. Except in the most obvious cases, the task of delineating the presence and extent of a suspected abnormality is heavily dependent on electrodiagnostic procedures. Electromyography and nerve conduction studies provide objective evidence of nerve injury. Electromyography demonstrates objective evidence of denervation in conditions affecting motor nerves. Nerve Conduction Studies reveal abnormalities in conditions causing significant axonal loss or demyelination of the peripheral nerves. As with most tests, (Clinical studies -AMA 5th Ed, pg 378 & 382) obtained results must be correlated with the findings from clinical examination. Once the exact anatomic location, type of tissue involved and severity of the neuropathy is determined, the maximum percentage of lost function due to weakness or loss of sensation can be estimated.”*
- 4.3. Quantitative sensory tests are portable tests, easily conducted in the clinician's office, which provide a quantitative assessment of sensation. These tests can provide information about nerve fibers not examined by nerve conduction studies. . For Entrapment Neuropathies, ‘slowing of conduction’ is the chief finding of The Nerve Conduction Studies. - – AMA Disability Evaluation, page 466
5. In order to give an impairment rating, objective, reproducible physical findings or objective abnormalities on needle electrodiagnostic testing have to be present in the clinical examination. Complaints of pain, loss of sensation or loss of strength in the defined pathway of a nerve, without objective evidence of an injury to the peripheral nervous system (PNS), do not receive any impairment. AMA Disability Evaluation, page 482.
- 5.1. In order to receive a permanent impairment, the complaints of pain and loss of sensation have to be consistent, reproducible, and in the defined anatomic pathway of the spinal nerve, brachial plexus or major peripheral nerve that is diseased. AMA 5th Ed, Impairment Determination Method, pg 481
- 5.2. *“The pathology that affects the PNS produces signs and symptoms in the extremities that are specific to the level of area of injury.” Only unequivocal and permanent sensory deficits are given permanent impairment ratings. Lesions of an individual nerve produce symptoms and signs in the distribution of the involved nerve. AMA 5th Ed – Section 16.3 pgs 445, 446 & Section 16.5, pg 480 & AMA Disability Evaluation, pg. 481*
6. **8 CCR 9785(g):** When the primary treating physician determines that the employee’s condition is permanent and stationary, the physician shall report any findings concerning the existence and extent of permanent impairment and limitations and any need for continuing or future medical resulting from the injury. The information may be submitted in various forms, or in such other manner as provides all of the information required by Title 8, California Code of Regulations Section [WCAB] 10606. **Medical evaluation must include all findings and the reasons for the evaluating physician’s opinion**
7. **LC § 4660 (b)(1):** After 01-01-2005 the AMA Guides 5th edition defines the standard methods the evaluator must follow to measure the objective manifestations of impairment when considering both anatomic and functional loss. **Impairment Rating: Evaluating Physician reports the whole person impairment (WPI) rating for any impairment using the AMA Guides, 5th Edition, and explains how the rating was derived. List tables, figures used and refers to AMA 5th Ed., page numbers.** The 5th Edition of the AMA Guides defines the standard methods the evaluator must follow to measure the objective manifestations of impairment when considering both anatomic and functional loss.
8. **A computer program calculating impairment is not a replacement for a reasoned medical opinion and the proper reporting of symptoms and measurable clinical findings.** The P&S medical report must (1) clinically correlate the calculated impairment to complete and correct AMA assessment criteria, (2) be supported by the proper measurable & clinical findings and (3) explained by a well-reasoned/rational medical opinion. AMA 5th Ed., Chapters 1 & 2.

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Upper Extremities Peripheral Nerve Disorders Impairments (PND)

AMA 5th Ed, pg 488, Figure 16-48 / AMA Disability Evaluation, pg 488, Figure 35-2:

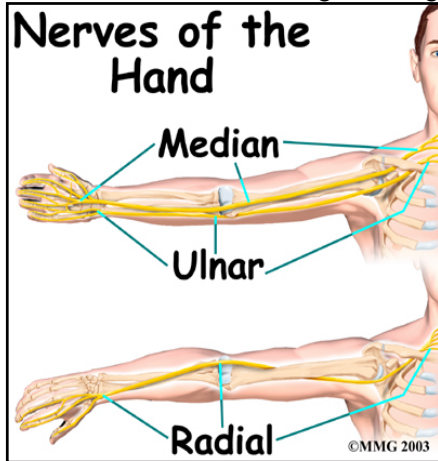


A P&S Report Checklist ✓: Upper Extremities Peripheral Nerve Disorders Impairments (PND)

To Rate Impairment, Neuropathy needs to be present On The Date Of Examination For The MMI/P&S Report.

- ✓ **Entrapment/compression neuropathies are rated when an objective verifiable diagnosis is present, supported by positive clinical findings and loss of function. AMA 5th Ed., 493**

1. Upper extremity impairments due to sensory deficits or pain resulting from peripheral nerve disorders are determined according to the grade of severity in diminution or loss of function and the relative maximum upper



extremity impairment value of the nerve structure involved, as shown in the classification (a) and procedural (b) steps described in Table 16-10 and the impairment determination method detailed in Section 16.5b. Table 16-10 is to be used for pain that is due to nerve injury or disease that has been documented with objective physical findings and/or Electrodiagnostic abnormalities. AMA 5th Ed, pg 482:

- 2. Nerve conduction and needle electromyography (EMG) studies help to determine which nerves are involved and their anatomic location. Skillful differentiation of peripheral neuropathy and neuromuscular disorders may also be possible. Expert neuromuscular knowledge and understanding of pathologic manifestations of disease processes are necessary for the appropriate application and performance of these tests, particularly the EMG. These tests are objective and require minimal cooperation from the

individual being tested. They reflect pathology in the largest, fastest-conducting nerve fibers. The interpretation of these tests must be correlated with a detailed neurologic evaluation. AMA 5th Ed, pg 307

Median Nerve Neuropathy – Carpal Tunnel Syndrome

AMA Guides Clinical & Rating Criteria (Substantial Medical Evidence Standards)	Yes ✓	No ✓	Reported Medical Findings Med Rpt., pgs.
1. For maximal recovery of nerve function of nerve lesions at the wrist, have 6-9 months past?			
2. Have Physician commented on employee’s demeanor, general behavior, mannerisms during interview/history taking?			
3. Any indications of abnormal movements?			
4. Does the examination include observations of muscle bulk (looking for atrophy), muscle tone, deep tendon reflexes and strength?			
5. Are prior symptoms and complaints corresponding to the sensory and motor distribution of the median nerve?			
6. Testing Standards: AMA 5th Ed, pg. 10, 307, 493 & AMA Disability Evaluation page 459			
6.1. Diagnosis confirmed by electrodiagnostic studies (needle & cutaneous) as well as sensory and motor nerve conduction studies conducted by a Board Certified Neurologist (with appropriate training)?			
6.2. Testing Area has met required standards?			
7. Nerve Conduction Velocity Test (Nerve Conduction Study) measures how quickly electrical impulses move along a nerve. It is often done at the same time as an <u>electromyogram</u> , in order to exclude or detect muscle disorders.			
7.1. Were motor and sensory latencies, conduction velocities, H reflex & F wave properly evaluated?			
7.2. Decreased Amplitudes?			
7.3. Results of Sensory NCS?			
7.4. Results of Motor NCS?			
8. Has physician tested all the muscles of the upper extremities, tested sensation and reflexes?			

A P&S Report Checklist ✓: Upper Extremities Peripheral Nerve Disorders Impairments (PND)

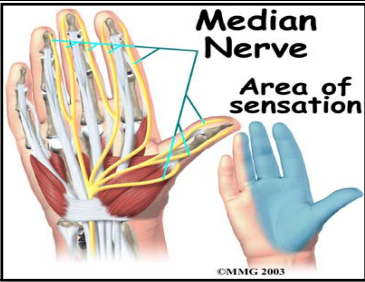
Median Nerve Neuropathy – Carpal Tunnel Syndrome

AMA Guides Clinical & Rating Criteria (Substantial Medical Evidence Standards)	Yes ✓	No ✓	Reported Medical Findings Med Rpt., pgs.
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9. **Electromyogram (EMG)** is a test that measures the electrical activity of a muscle. It detects any signs of blocking or slowing down of responses to nerve stimulation. The test provides information about the muscle itself and shows how well it receives stimulation from the nerve. (A nerve conduction velocity (NCV) test is often done at the same time as an EMG.)

9.1. Is EMG indicative of median neuropathy?			
9.2. Is the contralateral asymptomatic or symptomatic for median neuropathy?			
9.3. Does the EMG provide objective evidence to support the symptoms and findings- confirmation of carpal tunnel syndrome?			
9.4. Degree of median nerve involvement identified as per the electrodiagnostic studies?			+
9.5. Is the injury to the nerve complete or partial?			
10. Have both the <u>Nerve Conduction Studies</u> / <u>EMG</u> tests ruled out other pathologic nerve compression?			
10.1. Is the EMG indicative of non-vocational underlying polyneuropathy?			
10.2. Cervical radiculopathy?			
11. Evaluator properly addressed predisposing (pre-existing) non-vocational causation factors?			
Evaluator apportions to pre-existing/predisposing or associated conditions such as diabetes, arthritis, alcoholism, renal disease, hormonal changes, malnutrition, obesity, alcohol abuse, systematic neurologic disorders/diseases or hypothyroidism? AMA 5th Ed, pgs 480 & 491			




Impairment Determination Method – AMA 5th Ed, pg 481

12. Evaluator properly identifies the portion of the (injured) medial nerve involved (anatomic distribution) if sensory deficits/pain is present?			
13. Evaluator examined all muscle groups, identifying which are weak if motor deficits or loss of power is present?			
14. Are symptoms (numbness, tingling, etc.) present on the palmar surface of the 3½ radial digits (thumb, index, middle and radial aspect of the ring finger) innervated by the median nerve? (See Chart on Page 2)			
15. Clinical Neurological Evaluation and ancillary clinical testing have been correlated to the electromyographic studies? (One or more of the tests used to reproduce symptoms is positive.)			
15.1. Tinel Sign?			
15.2. Phalen's Test?			
15.3. Median Nerve Compression Test?			

California Workers Compensation

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Median Nerve Neuropathy – Carpal Tunnel Syndrome

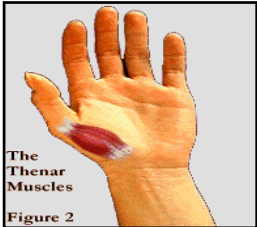
AMA Guides Clinical & Rating Criteria (Substantial Medical Evidence Standards)	Yes ✓	No ✓	Reported Medical Findings Med Rpt., pgs.
16. Evaluation of 2-Point Discrimination Testing on the pulp of <u>all the digits</u> for both hands? AMA 5th Ed, pg 449			
17. Type of sensory loss for innervated median nerve fingers?			
17.1. (≤) 6 ^{mm} (Normal)			
17.2. 7-15 ^{mm} (50% Loss) Abnormal			
17.3. Greater than (>) 15 ^{mm} (100% Loss) Abnormal			
18. Physician addresses the type of sensory loss for other digits?			
Semmes-Weinstein Touch Pressure Monofilament Test			
19. Has physician considered diminished values for individuals older than 55 years of age?			
20. Evaluator uses monofilaments to assess light touch in the median nerve distribution?			
21. Results:			
21.1. Within Normal Range?			
21.2. Diminished Light Touch (Tactile Sensation)?			
21.3. Reduced Protective Sensation?			
21.4. Loss of Protective Sensation?			
22. Objective sensory deficit in the distribution of the median nerve?			
Grading Sensory Deficits/Pain - AMA 5th Ed, pg 482 – Table 16-10			
Grade 4	Distorted superficial tactile sensibility with or without minimal abnormal sensations or pain that is forgotten during activity - Diminished Light Touch Testing , i.e., Semmes-Weinstein.		1-25 %
23. Pain radiating into the palm and the thumb, index, middle and radial aspect of the ring finger?			
24. Reasons provided for the specific % of deficit used?			
AMA Guides, pg. 22 – Section 2.6ab			
Grade 3	Distorted superficial tactile sensibility with some abnormal sensations or slight pain, that interferes with some activities - Diminished Light Touch And Two-Point Discrimination Test		26-60 %
25. Are both the Light Touch and 2-Point Discrimination Tests positive?			
26. Other Tests?			
26.1.			
26.2.			
26.3.			

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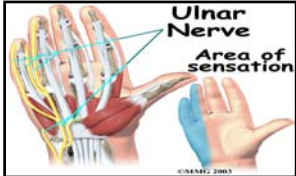
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Grade 2	(Rare) Decreased superficial cutaneous pain and tactile sensibility with abnormal sensations or moderate pain that may prevent some activities. (Decreased Protective Sensibility)	%
Grade 1	Deep cutaneous pain sensibility present; absent superficial pain and tactile sensibility with abnormal sensations or severe pain that prevents most activity. (Absent Protective Sensibility)	61-80
Grade 0	Absent sensibility, abnormal sensations, 100 or severe pain that prevents all activity	81-99
		100

Grading Motor Loss & Power Deficits - AMA 5th Ed, pg 484– Table 16-11

Grade 4	Complete active range of motion against gravity with some resistance			1-25 %
AMA Guides Clinical & Rating Criteria (Substantial Medical Evidence Standards)		Yes	No	Reported Medical Findings Med Rpt., pgs.
	27. Is weakness neurogenic (EMG) or due to pain and/or decreased effort?			
	28. Do the EMG studies confirm motor function of a specific muscle or group of muscles? - AMA 5 th Ed, pg 484			
	29. Late Stage Findings - Does the motor examination reveal atrophy of the thenar eminence muscles at the base of the thumb? 			
	30. Is there weakness of the abductor pollicis brevis and opponens pollicis muscles?			
	31. Was the 'extensor digitorum brevis; examined?			
	32. Was pinch and grip properly evaluated			
	33. Are circumferences of pertinent musculature provided?			

Ulnar Neuropathy – Cubital Tunnel Syndrome

AMA Guides Clinical & Rating Criteria (Substantial Medical Evidence Standards)		Yes	No	Reported Medical Findings Med Rpt., pgs.
	34. Clinical Neurological Evaluation and ancillary clinical testing have been correlated to the electromyographic studies? (One or more of the tests used to reproduce symptoms is positive.)			
	34.1. Tinel Sign?			
	34.2. Phalen's Test?			
	35. Evaluation of <u>2-Point Discrimination Testing</u> on the pulp of <u>all the digits</u> for both hands? AMA 5th Ed, pg 449			
	36. Type of sensory loss for innervated ulnar nerve fingers? 			
	36.1. (≤) 6 ^{mm} (Normal)			
	36.2. 7-15 ^{mm} (50% Loss) Abnormal			
	36.3. Greater than (>) 15 ^{mm} (100% Loss) Abnormal			
	37. Physician addresses the type of sensory loss for other digits?			

California Workers Compensation

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Grading Sensory Deficits/Pain - AMA 5th Ed, pg 482 – Table 16-10

Grade 4	Distorted superficial tactile sensibility, with or without minimal abnormal sensations or pain that is forgotten during activity. Diminished Light Touch Testing , i.e., Semmes-Weinstein.			1-25 %	
AMA Guides Clinical & Rating Criteria (Substantial Medical Evidence Standards)			Yes ✓	No ✓	Reported Medical Findings Med Rpt., pgs.

Objective sensory deficit in the distribution of the ulnar nerve: characteristically involves the medial aspect of the palmar and dorsal surfaces of the hand, splits the ring finger and does not extend proximal beyond the wrist.

38. Paresthesias in the ulnar nerve distribution into the little and ring fingers? Loss of sensation in the ulnar aspect of the hand?			
39. Little finger tested for sensory deficits?			
40. Reasons provided for the specific % of deficit used?			

Grade 3	Distorted superficial tactile sensibility with some abnormal sensations or slight pain, that interferes with some activities - Diminished Light Touch And Two-Point Discrimination Test			26-60 %
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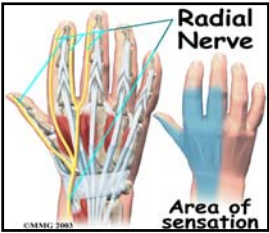
41. Are both Light Touch and 2-Point Discrimination Tests positive?			
42. Other Tests?			
42.1.			
42.2.			
42.3.			

Grading Motor Loss & Power Deficits - AMA 5th Ed, pg 484– Table 16-11

Grade 4	Complete active range of motion against gravity with some resistance			1-25 %
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43. Due the electromyographic studies confirm motor function of specific muscles or group of muscles- AMA 5 th Ed, pg 484			
44. Is the clinical evidence supportive of physician’s determination that the motor weakness is due to the loss of nerve function and not pain? <u>AMA 5th Ed, pg 484.</u>			
45. Does the motor examination reveal atrophy of abductors and adductors of the fingers (interossei), abductor pollicis and ulnar lumbricales?			
46. Late Stage Findings – Atrophy of the hypothenar eminence, flexor carpi ulnaris and/or weakness of the intrinsic muscles of the hand: gradual clawing of the small and ring fingers?			
47. Reasons provided for the specific % of deficit used?			

Radial Neuropathy

48. Sensory component is relatively minor and sensory symptoms and signs are restricted to the lateral aspect of the dorsal surface of the hand.				
49. Weakness of the extensor muscles of the wrist, fingers and thumb?				

Bibliography:

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