

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

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, pg. 493

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 Electrodiagnostic abnormalities. AMA Guides 5th, pg. 482:

AMA Guides Clinical & Rating Criteria (Substantial Medical Evidence Standards)	Reported Medical Findings Med Rpt., pgs.
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1. **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 electromyogram, in order to exclude or detect muscle disorders.

1.1. Results of Sensory NCS?	
1.2. Results of Motor NCS?	
1.3. Were motor and sensory latencies, conduction velocities, H reflex & F wave properly evaluated?	
1.4. Decreased Amplitudes?	
1.5. Physician tested muscle power of all muscle groups? Tested sensation and reflexes?	

2. **Electromyogram (EMG)** 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.

2.1. Degree of nerve involvement identified as per the electrodiagnostic studies?	
2.2. EMG studies confirm motor dysfunction of a specific muscle or group of muscles? AMA 5 th , pg. 484	
2.3. EMG provides confirmation of nerve injury - objective evidence to support the symptoms and signs?	
3. Are symptoms related to the permanent PND impairment present? (Weakness, sensory abnormalities, pain.)	
4. Evaluator established an accurate diagnosis by confirming the presence (absence) of specific pathology and symptoms with the use of appropriate neurological testing?	
5. As per clinical/records history, are prior symptoms and complaints corresponding to the part of the nervous system that is affected by the industrial injury?	
6. Is the contralateral arm asymptomatic or symptomatic?	
7. Have the NCS / EMG tests ruled out other nerve pathology?	
7.1. Are the studies indicative of non-vocational underlying polyneuropathy?	
8. Clinical Neurological Evaluation and ancillary clinical testing have been correlated to the electromyographic studies? (Results from multiple provocative tests reproduce symptoms.)	
9. Diagnosis confirmed by electrodiagnostic studies (needle & cutaneous) as well as sensory and motor nerve conduction studies conducted by a Board Certified Neurologist?	

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Substantial Medical Evidence

AMA Guides Clinical & Rating Criteria	Reported Medical Findings
9.1. Is the Impairment rating only based on a single diagnostic/ancillary test?	
9.2. Evaluating physician explains how the rating was derived? AMA Guides 5 th , Section 2.6, pgs. 21 & 22	
9.3. List AMA 5 th pages, tables and figures used?	
10. LC § 4663 Causation Apportionment - Physician addresses the probability that 'evoked' responses are the result of a non-vocational disease processes; e.g., due to a disease affecting the spinal cord, degenerative disc disease, motor neuron disease, genetically determined disorders or polyneuropathy.	
10.1. Evaluator apportions to pre-existing/predisposing or associated conditions?	
10.2. Tumors, compression or irradiation have been also considered as causation?	
10.3. Diabetes or Thyroid?	
10.4. Congenital cervical rib?	
10.5. 'Other Factors' Impingement from carrying a heavy shoulder bag or bad posture?	

Symptoms Brachial Plexus: Symptoms may include a limp arm, lack of muscle control in the arm, hand or wrist and lack of feeling or sensation in the arm or hand. Total brachial plexus paralysis is manifested by flail arm, paralysis of all muscles of the hand, and no sensibility. Sudorific function is intact when the lesion is preganglionic. A lack of spontaneous movements of the affected extremity and differences in reflex responses help to distinguish the type of injury. Patient with a brachial plexus injury will usually present with arm internally rotated, abducted and wrist somewhat flexed, depending on level of lesion. Scapular winging is a common problem of all brachial plexus injuries due to impairment of the long thoracic nerve. Phrenic nerve damage can also occur in brachial plexus injury.

11. **Testing Standards:** AMA Guides 5th, pg. 10, 307, 493 & AMA Disability Evaluation page 459.

Are any of the following findings for individual with Brachial Plexus injuries present:

11.1. Arm Internally Rotated, abducted?	
11.2. Flexed Wrist (Depends on lesion level)?	
11.3. Scapular winging (long thoracic nerve damage)?	
11.4. Soft Tissue or Joint Contractures?	
11.5. Frozen Shoulder?	
11.6. Dislocated Shoulder or Elbow?	
11.7. Tested Area has met required standards?	

12. C5-C6 Upper Trunk Nerve Roots: Upper Trunk Paralysis is known as Erb-Duchenne Palsy.

12.1. Arm hanging in adduction and internal rotation with the elbow in extension and the forearm in pronation?

Motor Strength: Biceps, deltoid, brachialis, supraspinatus, infraspinatus and rhomboid muscles are paralyzed; the triceps, pectoralis major and extensor carpi radialis brevis and longus muscles are weak. Most finger movements are intact. **Muscles To Test:**

12.2. C5 –Supraspinatus, Infraspinatus, Shoulder Abduction (Deltoid), Elbow Flexion (Biceps)?	
12.3. C6 – Elbow Flexion (Biceps), supinator, wrist extensors?	
12.4. C7 – Elbow Extension (Triceps), Wrist Flexors?	
12.5. C8 – Ulnar deviation, thumb extension, finger flexion and abduction?	
12.6. T1 - medial aspect of the upper arm?	
12.7. Physician identified the nerves innervating all the muscle groups examined, describing which are weak and which are not?	
12.8. Physician localizes and grades the magnitude of the decreased strength for each affected muscle?	

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Substantial Medical Evidence		
AMA Guides Clinical & Rating Criteria	Reported Medical Findings	
13. Sensory Deficits: (AMA, Figure 16-49, page 490) Sensory deficit in the C5 and C6 dermatomes is present in:		
13.1. C4 Shoulder Tip?		
13.2. C5 Deltoid area, anterior aspect of the entire arm to base of thumb?		
13.3. C6 Anterior Arm, radial side of the hand to thumb and index finger?		
13.4. C7 Lateral Arm & forearm to index, long and ring fingers?		
13.5. C8 Little Finger?		
13.6. T1 medial aspect of the upper arm?		
14. Reflexes:		
14.1. C5 Biceps (Brachioradialis)		
14.2. C6 Biceps (Brachioradialis)		
14.3. C7 Triceps		
<ul style="list-style-type: none"> • C7 Middle Trunk Nerve Root: Injuries are rare, except as a result of intrascalene anesthetic block. Middle Trunk (C7) injuries are often associated with coexisting upper or lower trunk injury. 		
15. C8-T1 Lower Trunk Nerve Roots: Lower trunk paralysis is known as Dejerine-Klumpke Palsy.		
16. Motor Strength: (Horner syndrome (ptosis, myosis, enophthalmos) if the T1 root is avulsed from the spinal cord.)		
16.1. Paralysis of all intrinsic muscles of the hand?		
16.2. Loss of opposition of thumb?		
16.3. Weakness of the flexor carpi ulnaris and flexor digitorum profundus of the little finger?		
16.4. Clawing of fingers 3 & 4: Loss of following finger movements: abduction and adduction of M.P. joints; flexion at M.P. & extension of I.P. joints?		
16.5. Loss of abduction & adduction of M.P joints of fingers?		
16.6. Thumb - abducted and extended?		
16.7. Loss of adduction of thumb?		
16.8. Loss of flexion of D.I.P. joints of fingers 4 & 5?		
16.9. Very weak flexion of P.I.P. & D.I.P. joints?		
17. Sensory Deficits: Sensory deficits of the C8 & T1 dermatomes.		
17.1. Diminished sensation ulnar and dorsal aspect of palm and of ulnar 1 1/2 digits?		
17.2. Thenar branch of Median nerve?		
18. Deep branch of Ulnar & Median ?		

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