Chapter 20 NEUROLOGICAL IMPAIRMENT

Introduction

This chapter provides criteria for assessing permanent impairment from entitled conditions of the central and peripheral nervous system (brain, cranial and peripheral nerves).

This chapter is divided into three sections. The first section provides criteria to assess impairment of cerebral function. The second section provides criteria to assess impairment of the cranial and peripheral nerves. The third section provides criteria to assess seizure disorders, narcolepsy and cataplexy, headache conditions and miscellaneous neurological conditions.

A rating is **not** given from this chapter for conditions listed below. Each bullet indicates the appropriate chapter to be used.

- Impairment from spinal nerve root compression lesions/sciatica is rated within Chapter 17, Musculoskeletal Impairment.
- Impairment from spinal cord injury or disease affecting the upper limbs only or the lower limbs only (but not both) is rated within Chapter 17, Musculoskeletal Impairment.
- Impairment from spinal cord injury or disease affecting both the upper and lower limbs is rated within Chapter 19, Activities of Daily Living.
- Impairment from polyneuropathy which affects the function of both the upper and lower limbs is rated within Chapter 19, Activities of Daily Living.
- Impairment from brain injury or disease affecting the upper limbs only or the lower limbs only (but not both) is rated within Chapter 17, Musculoskeletal Impairment.
- Impairment from neurological conditions that have multi-system or global body effects such as multiple sclerosis and amyotrophic lateral sclerosis (ALS) is rated within Chapter 19, Activities of Daily Living.

- Impairment from sleep apnea is rated within Chapter 12, Cardiorespiratory Impairment.
- Impairment from disequilibrium is rated within Chapter 9, Hearing Loss and Ear Impairment.
- Impairment from psychiatric disorders is rated within Chapter 21, Psychiatric Impairment.
- Impairment from brain injury or disease resulting only in both upper and lower limb effects is rated within Chapter 19, Activities of Daily Living.

Note: Brain injury or disease which results in multiple deficits (e.g. head injury or cerebral vascular accident resulting in cognitive, psychiatric and physical impairments) is rated on individual merits.

Impairment from malignant neurological conditions is rated within Chapter 18, Malignant Impairment. Follow the steps contained within the Malignant Impairment chapter.

If entitled for both a condition which affects cognition and a psychiatric disorder, the **Table 20.1** - Loss of Function - Cognition rating and the Chapter 21, Psychiatric Impairment rating are **compared** and the **highest** selected.

Rating Tables and Charts

This chapter contains five "Loss of Function" tables and four "Other Impairment" tables which may be used to rate entitled neurological conditions. Two reference charts are also included within this chapter which describe the effects of a complete loss of function of a cranial or peripheral nerve at its origin.

The tables and chart within this chapter are:

Table 20.1	Loss of Function - Cognition	This table is used to rate impairment of cognition.
Table 20.2	Loss of Function - Speech and Expression	This table is used to rate impairment of speech and/or expression.
Table 20.3	Loss of Function - Comprehension	This table is used to rate impairment in comprehension.
Table 20.4	Loss of Function - Cranial Nerves	This table is used to rate impairment in cranial nerve function.

Table 20.5	Loss of Function - Peripheral Nerves	This table is used to rate impairment of peripheral nerve function.
Table 20.6	Other Impairment - Seizures	This table is used to rate impairment from seizure disorders - major and minor.
Table 20.7	Other Impairment -Narcolepsy and Cataplexy	This table is used to rate impairment from narcolepsy and cataplexy.
Table 20.8	Other Impairment - Headaches	This table is used to rate impairment from headache conditions.
Table 20.9	Other Impairment - Miscellaneous Neurological	This table is used to rate impairment from miscellaneous neurological conditions.
Chart 1	Chart of Cranial Nerve Function	This reference chart describes the effect of a complete loss of function of a cranial nerve.
Chart 2	Chart of Peripheral Nerve Function	This reference chart describes the effect of a complete loss of function of a peripheral nerve.

Section 1

Determining Impairment Assessments of Cerebral Function

The tables that may be used to rate impairment from cerebral conditions are:

Table 20.1	Loss of Function - Cognition	This table is used to rate impairment of cognition.
Table 20.2	Loss of Function - Speech and Expression	This table is used to rate impairment of speech and/or expression.
Table 20.3	Loss of Function - Comprehension	This table is used to rate impairment in comprehension.

This section is used to rate impairment from conditions such as cerebral vascular accidents, dementia and other cognitive disorders (e.g. head injury).

Cognitive Function

Cognitive function deals with such aspects of knowledge as acquisition (learning), retention and recall (memory), and use (reasoning and problem solving). The **Table 20.1** rating must relate only to cognitive deficits that were not present before the onset of the entitled condition.

Self reports of deteriorating mental function must be interpreted with caution. Dementia is often associated with a lack of insight or tendency to deny failing abilities. Self-reported complaints about poor memory may be more closely related to depressive symptoms than to true memory deficits. If there is doubt about the nature or extent of the deficit, formal neuropsychiatric testing may be required.

When rating dementia and other cognitive disorders, only **Table 20.1** - Loss of Function - Cognition is to be used.

Note: Brain injury or disease which results in multiple deficits (e.g. head injury or cerebral vascular accident resulting in cognitive, psychiatric and physical impairments) is rated on individual merits.

Communication

Communication has two elements: expression and comprehension. "Expression" is the capacity to convey the content of one's mind to others. "Comprehension" means "understanding". It includes understanding of speech and gestures, recognition of sights and sounds, spatial and temporal orientation.

Expression and comprehension are to be rated separately by applying **Table 20.2** and **Table 20.3** respectively. Impairment ratings from these tables are to be added when criteria from both are applicable. Impairment ratings from these tables are not to include communication deficits that were present before the onset of the entitled condition.

Table 20.2 and **Table 20.3** are to be used to rate impairment from neurological or neuromuscular conditions as well as local lesions involving the mechanisms of speech production.

Communication restricted by vision loss, hearing loss, or loss of hand function is not to be rated within this chapter.

Loss of Function - Cognition

Table 20.1 is used to rate impairment from cerebral conditions that affect cognition. The table contains three columns (categories) which are rated independently. The ratings are **compared** and the **highest** selected.

If more than one condition is to be rated from **Table 20.1**, the conditions are bracketed for assessment purposes.

Because of the close and overlapping relationship between neurology and psychiatry, neurological conditions may have emotional and behavioural symptoms. Emotional and behavioural symptoms that occur as a result of entitled brain injury or disease are rated within this chapter section. If a Member/Veteran/Client is entitled for both a condition which affects cognition and a psychiatric disorder, the **Table 20.1** - Loss of Function - Cognition rating and the Chapter 21, Psychiatric Impairment rating are **compared** and the **highest** selected.

When entitled cognitive conditions result in permanent impairment of other organ systems, a consequential entitlement decision is required. If awarded, the resulting impairment of that organ system(s) will be rated using the applicable body system specific table(s).

If non-entitled conditions or conditions rated within another chapter/table of the Table of Disabilities are contributing to the overall impairment, then the Partially Contributing Table (PCT) must be applied to arrive at the rating which is due to the entitled condition(s) rated within this table.

Loss of Function - Speech and Expression

Table 20.2 is used to rate impairment of cerebral conditions that affect speech and/or the ability to write. The table contains three columns (categories) which are rated independently. The ratings are **compared** and the **highest** selected.

If more than one condition is to be rated from **Table 20.2**, the conditions are bracketed for assessment purposes.

When entitled speech and expression conditions result in permanent impairment of other organ systems, a consequential entitlement decision is required. If awarded, the resulting impairment of that organ system(s) will be rated using the applicable body system specific table(s).

If non-entitled conditions or conditions rated within another chapter/table of the Table of Disabilities are contributing to the overall impairment, then the Partially Contributing Table (PCT) must be applied to arrive at the rating which is due to the entitled condition(s) rated within this table.

Loss of Function - Comprehension

Table 20.3 is used to rate impairment of cerebral conditions that affect comprehension of oral and/or written language. Only one rating may be selected. If more than one rating is applicable, the ratings are **compared** and the **highest** selected.

If more than one condition is to be rated from **Table 20.3**, the conditions are bracketed for assessment purposes.

When entitled comprehension conditions result in permanent impairment of other organ systems, a consequential entitlement decision is required. If awarded, the resulting impairment of that organ system(s) will be rated using the applicable body system specific table(s).

If non-entitled conditions or conditions rated within another chapter/table of the Table of Disabilities are contributing to the overall impairment, then the Partially Contributing Table (PCT) must be applied to arrive at the rating which is due to the entitled condition(s) rated within this table.

Table 20.1 - Loss of Function - Cognition

Only one rating may be given from **Table 20.1**. Each column in **Table 20.1** is rated independently. If more than one rating is applicable within a column, the highest rating is selected as the column rating. The ratings from each column are **compared** and the **highest** selected.

Each bullet (•) represents one criterion. In order for a rating to be established for **Table 20.1**, only one criterion must be met at a level of impairment for that rating to be selected.

Table 20.1 - Loss of Function - Cognition

Rating	Cognitive	Emotional & Behavioural	Personal Care
Nil	Reasoning and memory are comparable with that of peers.	No difficulties with emotion and/or behaviour.	Fully capable of self-care.
Nine	Appropriate use is made of accumulated knowledge and reasonable judgement is shown in routine daily activities most of the time. Difficulties are apparent in new circumstances; or Demonstrates impairment of memory: misplaces objects, and has increased difficulty in remembering names and appointments. Can learn, although at a slower rate than previously. Impairment has little impact on everyday activity because of compensation through reliance on written notes, schedules, check-lists and spouse.	May have mild symptoms of anxiety and/or depression with respect to cognitive difficulties; or May have poor frustration tolerance.	

Rating	Cognitive	Emotional & Behavioural	Personal Care
Thirteen	 Demonstrates difficulty with multi-tasking which may be apparent to co-workers and results in decreased level of work performance; or Fully oriented except for difficulty with time relationships. 	Resistive or apathetic to care provided.	May require prompting with grooming, dressing and toileting.
Twenty-Three	 Has frequent difficulty in recalling details of recent experiences; fails to follow through with intentions or obligations; tends to get lost more easily in unfamiliar areas; or Demonstrates impairment of problem-solving ability: suffers significant disadvantage in circumstances requiring complex decision-making or non-routine activities. Reduced capacity for abstract thinking (i.e. a rolling stone gathers no moss). 		
Thirty-Two		 May show suspicious behaviour and/or occasional delusions; or Wanders at least weekly. Social judgement may be impaired. 	Requires assistance and/or supervision with most personal care activities.

Rating	Cognitive	Emotional & Behavioural	Personal Care
Forty-Nine	 Unable to function independently in new or complex situations; or Severe memory deficit; has extreme difficulty in keeping track of finances, scheduling activities, social relationships, etc.; or Disoriented to time and place but remains oriented to person. 	 Paranoia is present (i.e. spouse is poisoning food) and delusions are present most days; or Difficulty in social behaviour shown by aggressive behaviour toward caregiver or others; or Shows inappropriate sexual behaviour; or Wanders constantly day and night. 	Unable to live independently needing supervision to avoid harm (i.e. from fire caused by forgetting to put out cigarettes or to turn off appliances); or Frequent incontinence (more than once weekly while awake).
Eighty-One	 Unable to plan a course of action for the simplest activity; or Unable to acquire or recall new information; or Severe memory loss, only fragments remain; or Unable to make judgements or solve problems; or Complete disorientation and unaware of surroundings. 	Delusions and hallucinations present almost constantly throughout the day; or Difficulty in social behaviour shown by grossly inappropriate sexual or social behaviour; or Violent toward caregiver or others; or Intrusive wandering day and night.	 Unable to care for self in any situation; or No bowel or bladder control.

Steps to Determine Cognition Assessment

- Step 1: Determine a rating from each column in Table 20.1 (Loss of Function-Cognition). Compare and select the highest column rating as the Table 20.1 rating.
- **Step 2:** Does the Partially Contributing Table apply? If **yes**, then apply to rating at Step 1.
- **Step 3:** Determine the Quality of Life rating.
- **Step 4:** Add the ratings at Step 2 and Step 3.
- **Step 5:** If partial entitlement exists, apply to the rating at Step 4.

This is the Disability Assessment.

Table 20.2 - Loss of Function - Speech and Expression

Only one rating may be given from **Table 20.2**. Each column in **Table 20.2** is rated independently. If more than one rating is applicable within a column, the **highest** rating is selected as the column rating. The ratings from each column are **compared** and the **highest** selected.

Each bullet (•) represents one criterion. In order for a rating to be established for **Table 20.2**, all criteria designated at that rating level must be met.

Table 20.2 - Loss of Function - Speech and Expression

Rating	Criteria		
	Speech	Conversation	Ability to Write
Nil	Normal speech.	Normal conversational ability.	No writing difficulties.
Four	 Speech is of sufficient intensity and vocal quality for most everyday needs, e.g.: normal speech, but unable to shout; or needs to repeat self at times; or is unable to produce some phonetic units; or speech is sustained over a 10-minute period, but with difficulty that includes hesitancy and word retrieval problems; or is permanently hoarse. 	Has difficulty initiating conversation, is hesitant and suffers mild word retrieval difficulties.	
Nine	Speech is of sufficient intensity and vocal quality for many of the needs of everyday speech, e.g.: is adequate with low background noise, but is heard with some difficulty in vehicles or public places; or has many inaccuracies, but is easily understood by strangers; or is slow or discontinuous, conveying the distinct	Converses in simple sentences on familiar topics and has difficulty in explaining long or complex ideas.	

Rating	Criteria		
	Speech	Conversation	Ability to Write
Eighteen	Speech is of sufficient intensity and vocal quality for some of the needs of everyday speech, e.g.: is adequate under quiet conditions, but is heard with great difficulty against any background noise; voice fades rapidly; or is understood by family and friends, but is difficult for strangers; or needs frequent repetition; or speech is sustained for short period only: fatigues rapidly.	Is unable to initiate conversation. But, with considerable effort, is able to respond in short simple sentences or phrases.	Has moderate dysgraphia*. Unable to write more than short sentences which include frequent spelling errors, e.g.: has difficulty filling in bank forms.
Twenty-Six	Speech is of sufficient intensity and vocal quality for only a few of the needs of everyday speech, e.g.: is reduced to a whisper at best; inaudible over the telephone; or can produce only a few phonetic units approximating some words, but these are not intelligible if the context is unknown; or can produce only short phrases or single words: speech flow is not maintained, or is too slow to be useful.	Is limited to single words or familiar social or stereotyped phrases requiring considerable listener inference.	Has severe dysgraphia*. Able to write only some recognizable words, e.g. items for a shopping list, or names of family.
Thirty-Four	Has no speech production, but is able to use non-verbal means of expression.	Is unable to participate in conversation.	Has agraphia. No functional writing ability, although is able to copy or write much practised sequences, such as own name.

^{*}Dysgraphia is the inability to write properly due to an expression problem from an acquired neurological condition.

Table 20.3 - Loss of Function - Comprehension

Only one rating may be given from **Table 20.3**. If more than one rating is applicable, the ratings are **compared** and the **highest** selected.

Each bullet (•) represents one criterion. In order for a rating to be established for **Table 20.3**, only one criterion designated at that rating level must be met.

Table 20.3 - Loss of Function - Comprehension

Rating	Criteria
Nil	Normal comprehension.
Four	 Understands movies, radio programs or group discussions with some difficulty. Comprehension is good in most circumstances and situations but understanding is difficult in large groups or when tired and upset. Has difficulty dealing with rapid changes of topic.
Nine	 Understands speech face to face but confusion or fatigue occurs rapidly in a group. Is unable to cope with rapid change in topic or with complex topics (e.g. is able to grasp the meaning of simple story lines, simple TV serials, but cannot grasp the meaning of more complex ideas, for example, "a stitch in time saves nine"); or Mild alexia* (e.g. is able to grasp the meaning of basic newspaper and magazine articles, but has difficulty understanding details such as a story line in a book).
Twenty-One	 Understands simple sentences only. Can understand and follow simple conversation when some points are repeated; or Moderate alexia*. Reading comprehension is limited to sentences and short paragraphs (e.g. can follow two to three line instructions and cope with shopping and other short lists, but nothing more complex).
Thirty-Four	 Understands only single words. Shows some understanding of slowly spoken simple sentences from context and gesture, although frequent repetition is needed; or Severe alexia* (e.g. is able to read single words, to match words to pictures and to read labels and signs, but is unable to read instructions).
Seventy	Unable to read single words, labels or signs.
Eighty-One	 Unable to understand simple instructions, even simple yes/no questions, even with gestures.

^{*}Alexia is a form of receptive aphasia in which there is inability to understand written language.

Steps to Determine Speech and Expression /Comprehension Assessment

- Step 1: Determine a rating from each column in Table 20.2 (Loss of Function-Speech and Expression) (if applicable). Compare and select the highest column rating as the Table 20.2 rating.
- **Step 2:** Does the Partially Contributing Table apply? If **yes**, then apply to rating at Step 1.
- **Step 3:** Determine a rating from **Table 20.3** (Loss of Function Comprehension) (if applicable).
- **Step 4**: Does the Partially Contributing Table apply? If **yes**, then apply to rating at Step 3.
- **Step 5:** Add the ratings from Step 2 and Step 4.
- **Step 6:** Determine the Quality of Life rating.
- **Step 7:** Add the ratings at Step 5 and Step 6.
- **Step 8:** If partial entitlement exists, apply to the rating at Step 7.

This is the Disability Assessment.

Section 2

Determining Impairment Assessments of Cranial and Peripheral Nerve Conditions

The tables that may be used to rate impairment from cranial and peripheral nerve conditions are:

Table 20.4	Loss of Function - Cranial Nerves	This table is used to rate impairment of cranial nerve function.
Table 20.5	Loss of Function - Peripheral Nerves	This table is used to rate impairment of peripheral nerve function.
Chart 1	Chart of Cranial Nerve Function	This reference chart describes the effect of a complete loss of function of a cranial nerve.
Chart 2	Chart of Peripheral Nerve Function	This reference chart describes the effect of a complete loss of function of a peripheral nerve.

Loss of Function - Cranial Nerves

The twelve pairs of cranial nerves emerge from the base of the brain to control sensory, motor and autonomic functions. Some of the nerves have a mixture of sensory, motor and/or autonomic fibres, while others are purely sensory or motor.

Table 20.4 - Loss of Function - Cranial Nerves rates impairment of cranial nerve conditions. Instructions are provided within this table when a rating for a cranial nerve condition is required from another table within this chapter or from another chapter.

When entitled conditions of the cranial nerves result in permanent impairment of other organ systems, a consequential entitlement decision is required. If awarded, the resulting impairment of that organ system(s) will be rated using the applicable body system specific table(s).

If non-entitled conditions or conditions rated within another chapter/table of the Table of Disabilities are contributing to the overall impairment, then the Partially Contributing Table (PCT) must be applied to arrive at the rating which is due to the entitled condition(s) rated within this table.

Loss of Function - Peripheral Nerves

Peripheral nerves convey nerve impulses to and from the central nervous system (brain and spinal cord) to control sensory, motor and autonomic functions. A Member/Veteran/Client may have a disturbance of any one of or all of these functions. The disturbance may be partial or complete, unilateral or bilateral, of one nerve or of multiple nerves. A deficit in nerve conduction may result in a functional impairment.

Table 20.5 - Loss of Function - Peripheral Nerves rates impairment of specific peripheral nerves. The first column (category) is used to rate complete loss of nerve function at its origin. This includes paralysis and associated loss of sensation. The second column (category) is used when there is only a complete loss of sensation. A rating cannot be taken from both columns for the same peripheral nerve condition.

For peripheral nerve conditions not included in **Table 20.5** (e.g. incomplete loss of function of a peripheral nerve or loss of sensation in a "glove" or "stocking" distribution) a rating may be applicable from **Table 17.1** - Loss of Function - Upper Limb or **Table 17.9** - Loss of Function - Lower Limb.

In cases where the same limb is affected by both a complete loss of a nerve's function at its origin and a condition which is rated from **Table 17.1** - Loss of Function - Upper Limb or **Table 17.9** - Loss of Function - Lower Limb, the conditions are bracketed for assessment purposes. The **Table 20.5** rating is **compared** to the **Table 17.1** or the **Table 17.9** rating and the **highest** selected. For example, an entitled complete transection of the left ulnar nerve and an entitled complex regional pain syndrome of the left hand both require a rating. A rating for the complete transection of the left ulnar nerve is taken from **Table 20.5** and a rating is taken from **Table 17.1** for the complex regional pain syndrome of the left hand. The ratings are **compared** and the **highest** selected. The conditions are bracketed for assessment purposes.

In cases where the same limb is affected by two or more complete losses of nerve function, a rating is selected for each nerve. The individual ratings are **added** and the conditions bracketed for assessment purposes.

For peripheral nerve conditions that cannot be rated in **Table 20.5**, **Table 17.1** or **Table 17.9**, a rating will be determined based on individual merits.

NOTE: Only one rating for each upper limb or for the lower limbs as a functional unit may be obtained from **Table 17.1** and **17.9** respectively, regardless of the number of entitled musculoskeletal or neurological conditions rated within these tables.

If more than one musculoskeletal or neurological condition is rated from these tables, the conditions are bracketed for assessment purposes.

In cases of peripheral motor, sensory or mixed polyneuropathy which affects the function of both the upper and lower limbs, a rating is not obtained from this chapter or from Chapter 17, Musculoskeletal Impairment. The impairment is rated from Chapter 19, Activities of Daily Living.

If a Member/Veteran/Client has impairment of autonomic function associated with a peripheral neuropathy (e.g. voiding dysfunction) or has a permanent complication from peripheral neuropathy (e.g. Charcot's joint), a consequential entitlement decision is required. If awarded, the resulting impairment of that organ system(s) will be rated using the applicable body system specific table(s).

When entitled conditions of the peripheral nerves result in permanent impairment of other organ systems, a consequential entitlement decision is required. If awarded, the resulting impairment of that organ system(s) will be rated using the applicable body system specific table(s).

If non-entitled conditions or conditions rated within another chapter/table of the Table of Disabilities are contributing to the overall impairment, then the Partially Contributing Table (PCT) must be applied to arrive at the rating which is due to the entitled condition(s) rated within this table.

Table 20.4 - Loss of Function - Cranial Nerves

More than one rating may be applicable for each entitled unilateral or bilateral cranial nerve condition from **Table 20.4**. If more than one rating is applicable for an entitled condition, the ratings are **added**.

Note: Where applicable, **Table 20.4** indicates the appropriate chapter or table to be used for rating cranial nerve conditions.

If partial losses exist, the ratings are to be reduced proportionately.

Table 20.4 - Loss of Function - Cranial Nerves

Cranial Nerve	Function	Apply	Complete Unilateral Loss Rating	Complete Bilateral Loss Rating
l (olfactory)	Smell		NIL	4
II (optic)	Vision	Chapter 8		
III, IV, VI (oculomotor, trochlear, abducens)	Eye Movement	Chapter 8		
V (trigeminal)	Opthalmic Division (sensory)		4	9
	Maxillary Division (sensory)		4	9
	Mandibular Division (sensory)		4	9
	Chewing	Chapter 14		
	Speech	Table 20.2		
VII (facial)	Taste		NIL	4
	Facial Expression		9	18
	Chewing	Chapter 14		
	Speech	Table 20.2		
VIII (vestibulocochlear)	Hearing	Chapter 9		
	Balance	Chapter 9		
IX, X, XI, XII (glossopharyngeal, vagus,	Swallowing	Table 20.9		
spinal accessory, hypoglossal)	Speech	Table 20.2		
XI (spinal accessory)	Shoulder elevation/head rotation		4	9

Refer to Chart 1 for a description of the effects of a complete loss of function of a cranial nerve.

Steps to Determine Cranial Nerve Assessment

- Step 1: Determine the rating from Table 20.4 (Loss of Function-Cranial Nerves).
- **Step 2:** Does the Partially Contributing Table apply? If **yes**, then apply to rating at Step 1.
- **Step 3:** Determine the Quality of Life rating.
- **Step 4:** Add the ratings at Step 2 and Step 3.
- **Step 5:** If partial entitlement exists, apply to the rating at Step 4.

This is the Disability Assessment.

Table 20.5 - Loss of Function - Peripheral Nerves

Only one rating may be given for each entitled unilateral peripheral nerve condition from **Table 20.5**.

In cases where the same limb is affected by two or more complete losses of nerve function, a rating is selected for each nerve. The individual ratings are **added** and the conditions bracketed for assessment purposes.

Note: A rating cannot be taken from both columns for the same peripheral nerve condition.

Table 20.5 - Loss of Function - Peripheral Nerves

	Rating		
Peripheral Nerve	Complete Unilateral Loss of Function (Motor and Sensation)	Complete Unilateral Loss of Function (Sensation Only)	
Greater Auricular	N/A	1	
Brachial Plexus: Upper Trunk (C5 and C6)	34	N/A	
Brachial Plexus: Middle Trunk (C7)	34	N/A	
Brachial Plexus: Lower Trunk (C8, T1)	34	N/A	
Full Brachial Plexus (C5, C6, C7, C8, and T1)	65	N/A	
Radial	43	2	
Median	34	13	
Ulnar	26	4	
Musculocutaneous Nerve of the Arm	13	2	
Axillary	18	2	

	Rating	
Peripheral Nerve	Complete Unilateral Loss of Function (Motor and Sensation)	Complete Unilateral Loss of Function (Sensation Only)
Long Thoracic	4	N/A
Sciatic	51	9
Femoral	18	4
Obturator	4	NIL
Common Peroneal	18	4
Superficial Peroneal	9	3
Deep Peroneal	13	NIL
Tibial	18	4
Posterior Femoral Cutaneous	N/A	4
Lateral Cutaneous Nerve of the Thigh	N/A	4
llioinguinal	NIL	4

Refer to Chart 2 for a description of the effects of a complete loss of function of a peripheral nerve.

For peripheral nerve conditions that cannot be rated in Table 20.5, Table 17.1 or Table 17.9, a rating will be determined based on individual merits.

Steps to Determine Peripheral Nerve Assessment

Step 1: Determine the rating from **Table 20.5** (Loss of Function - Peripheral Nerve).

Note: A rating **cannot** be taken from **both** columns of **Table 20.5** for the same peripheral nerve condition.

If the **same** limb is affected by two or more complete losses of peripheral nerve function, a rating is selected for each nerve. The individual ratings are **added** and the conditions bracketed.

- **Step 2:** Does the Partially Contributing Table apply? If **yes**, then apply to rating at Step 1.
- **Step 3:** Determine the Quality of Life rating.
- **Step 4:** Add ratings at Step 2 and Step 3.
- **Step 5:** If partial entitlement exists, apply to rating at Step 4.

This is the Disability Assessment.

Note: If entitled bilateral peripheral nerve conditions require assessment, the steps must be repeated.

Chart 1 - Chart of Cranial Nerve Function

Chart 1 describes what functions are affected as a result of a complete loss of a cranial nerve's function at its origin, unless otherwise specified.

Chart 1 may be used as reference for rating loss of function of cranial nerves.

Chart 1 - Chart of Cranial Nerve Function

Cranial Nerve	Functions Affected
I Olfactory	Motor - Nil
	Sensory - Loss of sense of smell
II Optic	Motor - Nil
	Sensory - Loss of vision
III Oculomotor	Motor - Eye movement - paralysis of internal rectus, superior rectus, inferior rectus, inferior oblique
	Sensory - Nil
	Clinical Presentation - Divergent strabismus, diplopia, ptosis of lid - Dilated pupil, loss of light and accommodation reflex - Eyeball deviated outward and slightly downward
IV Trochlear	Motor - Paralysis of superior oblique
	Sensory - Nil
	Clinical Presentation - Slight convergent strabismus - Cannot look down and out - May hold head tilted - Difficulty descending stairs

Cranial Nerve	Functions Affected
V Trigeminal	Motor (via mandibular branch) - Paralysis of muscles of mastication - Paralysis of tensor tympani may result in impaired hearing
	Sensory - Face, sinuses, oral cavity, tongue, part of the ear and the eye - Corneal anesthesia may present early
	1st Division (opthalmic) - Sensory to forehead, upper eyelid, conjunctiva and side of the nose
	2nd Division (maxillary) - Sensory to posterior side of the nose, lower eyelid, cheek, upper lip and lateral side of the orbital opening including upper teeth and hard palate
	3rd Division (mandibular) - Sensory to lower lip and face, temporal regions and part of auricle - Muscles of mastication - Tensor tympani of the middle ear
	Clinical Presentation - Jaw deviates to affected side - Impaired hearing - Loss of corneal reflex
VI Abducens	Motor - Paralysis of external or lateral rectus
	Sensory - Nil
	Clinical Presentation - Convergent strabismus and diplopia - Eyeball deviated inward

Cranial Nerve	Functions Affected	
VII Facial	Motor (Bell's Palsy)	
	 Paralysis of superficial muscles of the face and scalp Disturbance in secretion of lacrimal and parotid glands 	
	Sensory - Loss of taste from anterior 2/3 of tongue	
	Clinical Presentation - Facial asymmetry with smiling - Sagging of muscles of face and eyelid - Mouth droops - Unable to close eye or wrinkle forehead - Decreased salivation	
VIII Vestibulocochlear (Acoustic) (Auditory)	Motor - Nil	
	Sensory - Cochlear portion: deafness - Vestibular portion: disorders of equilibrium	
	Clinical Presentation - Cochlear portion: deafness, tinnitus - Vestibular portion: vertigo, nystagmus	
IX Glossopharyngeal	Motor - Dysphagia	
	Sensory - Loss over posterior pharynx	
	Clinical Presentation - Loss of gag reflex - Orthostatic dizziness	
X Vagus	Motor - Hoarseness, dysphagia	
	Sensory - Pain or paresthesia of larynx, pharynx	
	Clinical Presentation - Salivary gland dysfunction - Autonomic dysfunction of cardiopulmonary and gastrointestinal systems	

Cranial Nerve	Functions Affected
XI Spinal Accessory	Motor - Absence of cervical rotation - Absence of shoulder elevation Sensory - Nil Clinical Presentation
	- Cannot rotate head to healthy side or shrug affected shoulder - May have some dysphagia
XII Hypoglossal	Motor - Paralysis of tongue Sensory
	- Nil
	Clinical Presentation - Tongue deviates to affected side with protrusion

Chart 2 - Chart of Peripheral Nerve Function

Chart 2 describes what functions are affected as a result of **complete** loss of a peripheral nerve's function at its origin, unless otherwise specified.

Chart 2 may be used as a reference for rating loss of function of peripheral nerves.

Chart 2 - Chart of Peripheral Nerve Function

Peripheral Nerve	Functions Affected
Brachial plexus: Upper Trunk (C5 and C6)	Motor Shoulder - loss of abduction, internal rotation, external rotation Elbow - loss of flexion
(Erb Duchene palsy or waiter's tip)	Sensory Incomplete loss over lateral aspect of arm and forearm
	Clinical Presentation Limb hangs limply at side, rotated medially.
Brachial Plexus: Middle Trunk (C7)	Motor Rarely seen alone Paralysis of the triceps Elbow - loss of extension Wrist - weak extension Hands - weak extension Sensory
Brachial Plexus: Lower Trunk (C8 and T1)	Motor Paralysis in all small muscles of hand May cause Horner's syndrome (T1).
(Klumpke's palsy)	Sensory Radial side of forearm, hand and ulnar two fingers
	Clinical Presentation "Claw" hand Hyperextension MIP joints and flexion IP joint

Peripheral Nerve	Functions Affected
Radial (C6, C7, C8 and T1) (musculospiral)	Motor At axilla - paralysis Elbow - loss of extension Wrist - loss of extension Fingers - loss of extension Unable to grip firmly At elbow Elbow extension maintained Loss of extension of wrist and fingers Sensory Posterior aspect arm and forearm Lateral area dorsum of hand Clinical Presentation
Median (C6, C7, C8 and T1)	Thumb turned into palm At Elbow Motor Wrist - weak flexion Thumb - loss of flexion Index and middle fingers - loss of flexion Sensory Loss over radial (lateral) aspect of palm Loss over palmar aspect of the radial 3 ½ fingers Total loss over tips of index and middle fingers Clinical Presentation Hand looks flattened or "apelike". Atrophy of lateral forearm and thenar eminence Thumb at side of palm
	At Wrist Motor Thumb - cannot be opposed. Fingers - decreased ability to abduct Sensory As at elbow Clinical Presentation Thenar atrophy

Peripheral Nerve	Functions Affected
Ulnar (C8, T1)	Above Elbow Motor Wrist - flexion weak with hand deviating to radial (lateral) side Fingers - loss of flexion PIP joints; loss of adduction; loss of abduction Thumb - loss of adduction
	Sensory Loss over ulnar (medial) portion of hand and ring finger; entire little finger
	Clinical Presentation "Claw" hand or "main en griffe" Ring and little finger hyperextended at MTP and flexed at PIP joints Atrophy medial aspect of forearm and hypothenar eminence
	Below Elbow Motor Wrist - flexion maintained Finger and thumbs as above
Musculocutaneous nerve of the arm (C5 and C6)	Motor At elbow Weakness in flexion and supination
	Sensory Loss over lateral side of forearm
Axillary (circumflex)	Motor Shoulder - weakness of flexion, extension and initiation of abduction Difficulty raising to horizontal position
	Sensory Loss of sensation over lower half of deltoid muscle
	Clinical Presentation Wasting over the shoulder
Long thoracic (C5, C6, C7)	Motor Shoulder - weakness in elevation beyond horizontal plane. Cannot raise arm above head.
	Sensory Nil
	Clinical Presentation Winged scapula

Peripheral Nerve	Functions Affected
Sciatic (L4, L5, S1, S2, S3)	Motor At knee Loss or weakness of flexion
	At ankle, foot and toes Complete paralysis
	Sensory Pain often present Loss over posterior and lateral aspects of leg and foot
	Clinical Presentation Foot drop Walks with steppage gait: lifts foot high Unable to stand on heel or toes
Femoral (L2, L3, L4)	Motor Hip - loss of flexion Knee- loss of flexion
(anterior crural)	Sensory May be pain Loss over medial side of thigh, leg and foot
	Clinical Presentation May steady thigh with hand when walking
Obturator (L2, L3, L4)	Motor Hip - weakness of external rotation and adduction
	Sensory Usually insignificant Minimal loss over medial side of thigh
Common Peroneal (L4, L5, S1, S2)	Motor Ankle and toes - loss of dorsiflexion
(external popliteal) (lateral popliteal)	Sensory Loss over lateral aspect of leg, foot and toes
	Clinical Presentation Foot drop and steppage gait Foot plantar flexed and inverted (equinovarus)
Superficial Peroneal (L5, S1)	Motor Foot - weakness or loss of eversion
(musculocutaneous nerve of the leg)	Sensory Dorsal and lateral surface of leg

Peripheral Nerve	Functions Affected
Deep Peroneal (anterior tibial)	Motor Ankle and toes - loss of dorsiflexion Sensory Loss over 1st webspace of the foot
Tibial (L4, L5, S1, S2, S3) (posterior tibial internal popliteal)	Motor Foot - loss of plantar flexion, adduction and inversion Sensory Causalgia common Loss over sole of the foot Clinical Presentation Toes separated Ankle dorsiflexed
Posterior Femoral Cutaneous (S1, S2, S3) (small sciatic nerve)	Sensory Loss over perineum and posterior surface of the thigh and leg
Lateral Cutaneous nerve of the thigh (L2, L3)	Sensory (meralgia paresthetica) Loss over the lower lateral quadrant of the buttock Loss over the lateral aspect of the thigh and knee
Ilioinguinal (L1)	Sensory Loss over perineum and upper medial thigh

Section 3

Determining Impairment Assessments of Seizure Disorders, Narcolepsy and Cataplexy, Headache Conditions and Miscellaneous Neurological Conditions

The tables used to rate impairment from seizure disorders, narcolepsy and cataplexy, headache conditions and miscellaneous neurological conditions are:

Table 20.6	Other Impairment - Seizures	This table is used to rate impairment from seizure disorders - major and minor.
Table 20.7	Other Impairment - Narcolepsy and Cataplexy	This table is used to rate impairment from narcolepsy and cataplexy.
Table 20.8	Other Impairment - Headaches	This table is used to rate impairment from headache conditions.
Table 20.9	Other Impairment - Miscellaneous Neurological	This table is used to rate impairment from miscellaneous neurological conditions.

Other Impairment - Seizures

Table 20.6 is used to rate impairment from seizure disorders. Only one rating may be selected. If more than one rating is applicable, the ratings are **compared** and the **highest** selected.

If more than one type of seizure disorder is to be rated from **Table 20.6**, the conditions are bracketed for assessment purposes.

When entitled seizure disorders result in permanent impairment of other organ systems, a consequential entitlement decision is required. If awarded, the resulting impairment of that organ system(s) will be rated using the applicable body system specific table(s).

If non-entitled conditions or conditions rated within another chapter/table of the Table of Disabilities are contributing to the overall impairment, then the Partially Contributing Table (PCT) must be applied to arrive at the rating which is due to the entitled condition(s) rated within this table.

Other Impairment - Narcolepsy and Cataplexy

Table 20.7 is used to rate impairment from narcolepsy and cataplexy. Only one rating may be selected. If more than one rating is applicable, the ratings are **compared** and the **highest** selected.

When entitled narcolepsy and cataplexy disorders result in permanent impairment of other organ systems, a consequential entitlement decision is required. If awarded, the resulting impairment of that organ system(s) will be rated using the applicable body system specific table(s).

If non-entitled conditions or conditions rated within another chapter/table of the Table of Disabilities are contributing to the overall impairment, then the Partially Contributing Table (PCT) must be applied to arrive at the rating which is due to the entitled condition(s) rated within this table.

Other Impairment - Headaches

Table 20.8 is used to rate impairment from headache conditions. Only one rating may be selected. If more than one rating is applicable, the ratings are **compared** and the **highest** selected.

If more than one type of headache is to be rated from **Table 20.8**, the conditions are bracketed for assessment purposes.

When rating migraine headaches, common auras such as scotomas and flashing lights are considered to be included in the **Table 20.8** rating. Migraine headaches associated with transient neurological deficits including but not limited to hemiplegia, dysarthria and ocular muscle weakness are rated on individual merits.

When entitled headache conditions result in permanent impairment of other organ systems, a consequential entitlement decision is required. If awarded, the resulting impairment of that organ system(s) will be rated using the applicable body system specific table(s).

If non-entitled conditions or conditions rated within another chapter/table of the Table of Disabilities are contributing to the overall impairment, then the Partially Contributing Table (PCT) must be applied to arrive at the rating which is due to the entitled condition(s) rated within this table.

Other Impairment - Miscellaneous Neurological Conditions

Table 20.9 is used to rate impairment from miscellaneous neurological conditions. One rating may be selected for each entitled condition. If more than one rating is applicable for an entitled condition, the ratings are **compared** and the **highest** selected.

When entitled miscellaneous neurological conditions result in permanent impairment of other organ systems, a consequential entitlement decision is required. If awarded, the resulting impairment of that organ system(s) will be rated using the applicable body system specific table(s).

If non-entitled conditions or conditions rated within another chapter/table of the Table of Disabilities are contributing to the overall impairment, then the Partially Contributing Table (PCT) must be applied to arrive at the rating which is due to the entitled condition(s) rated within this table.

Table 20.6 - Other Impairment - Seizures

Only one rating may be given from **Table 20.6**. If more than one rating is applicable, the ratings are **compared** and the **highest** selected.

Each bullet (•) represents one criterion. In order for a rating to be established for **Table 20.6**, follow the "ands" and "ors".

TABLE 20.6 - LOSS OF FUNCTION - SEIZURES

Rating	Criteria
Nil	 Remote history of seizures with none in the previous 5-year period; and No anti-convulsive medication required; and No protective equipment required; and No requirement for supervision.
Four	 Remote history of seizures with none in the previous 5-year period; and Regular anti-convulsive medication required.
Nine	 An average of less than one major* seizure per year in the previous 5-year period; or An average of less than one minor** seizure per week in the previous 12-month period; and Regular anti-convulsive medication required.
Eighteen	 One major* seizure in the previous 12-month period; or One minor** seizure per week in the previous 12-month period; and Regular anti-convulsive medication required.

Rating	Criteria
Thirty-five	 More than one major* seizure in the previous 12-month period but averages less than one major* seizure per month; or Two to five minor** seizures per week in the previous 12-month period; or Requires supervision for certain activities (eg. swimming); and Regular anti-convulsive medication required.
Fifty	 Averages one major* seizure per month in the previous 12-month period; or Five to ten minor** seizures per week in the previous 12-month period; or Requires protective equipment for safety reasons most of the time (eg. helmet); and Regular anti-convulsive medication required.
Eighty-five	 Averages more than one major* seizure per month in the previous 12-month period; or More than 10 minor** seizures per week in the previous 12-month period; or Requires constant supervision; and Regular anti-convulsive medication required.

A *major seizure is characterized by generalized tonic-clonic convulsion with unconsciousness.

A **minor seizure is characterized by a brief interruption in consciousness or conscious control associated with staring, rhythmic eye blinking, or head nodding, or sudden jerking movements of the limbs and/or head, or sudden loss of postural control.

Steps to Determine Seizure Assessment

- **Step 1**: Determine the rating from **Table 20.6** (Other Impairment Seizures).
- **Step 2:** Does the Partially Contributing Table apply? If **yes**, then apply to rating at Step 1.
- **Step 3:** Determine the Quality of Life rating.
- **Step 4:** Add the ratings at Step 2 and Step 3.
- **Step 5:** If partial entitlement exists, apply to the rating at Step 4.

This is the Disability Assessment.

Table 20.7 - Other Impairment - Narcolepsy and Cataplexy

Only one rating may be given from **Table 20.7**. If more than one rating is applicable, the ratings are **compared** and the **highest** selected.

Each bullet (•) represents one criterion. In order for a rating to be established for **Table 20.7**, follow the "ands" and "ors".

Table 20.7 - Other Impairment - Narcolepsy and Cataplexy

Rating	Criteria
Four	 Narcoleptic attacks requiring no medication or intermittent use of medications; or Cataplectic attacks requiring no medication or intermittent use of medications.
Nine	 Narcoleptic attacks requiring continuous use of medications; or Cataplectic attacks requiring continuous use of medications.
Thirteen	 Narcoleptic attacks requiring continuous use of medications; and Cataplectic attacks requiring continuous use of medications.
Eighteen	 Narcoleptic attacks and/or cataplectic attacks requiring continuous use of medications; and Narcoleptic and/or cataplectic attacks which impact on the safety of self or others, despite continuous medications.

Steps to Determine Narcolepsy/Cataplexy Assessment

- **Step 1**: Determine the rating from **Table 20.7** (Other Impairment Narcolepsy and Cataplexy).
- **Step 2:** Does the Partially Contributing Table apply? If **yes**, then apply to rating at Step 1.
- **Step 3:** Determine the Quality of Life rating.
- Step 4: Add the ratings at Step 2 and Step 3.
- Step 5: If partial entitlement exists, apply to the rating at Step 4.

This is the Disability Assessment.

Table 20.8 - Loss of Function - Headaches

Only one rating may be given from **Table 20.8**. If more than one rating is applicable, the ratings are **compared** and the **highest** selected.

Each bullet (•) represents one criterion. In order for a rating to be established for **Table 20.8**, follow the "ands" and "ors".

Table 20.8 - Loss of Function - Headaches

Rating	Criteria
Two	 Headache experienced less than 30 days per year. Bed rest not required or may be occasionally required.
Four	 Headache experienced less than 30 days per year. Bed rest is required during most episodes; or Headache experienced 30 - 100 days per year. Bed rest not required or may be occasionally required.
Nine	 Headache is experienced 30 - 100 days per year or headache is experienced on a weekly basis and bed rest is required during most episodes; or Headache experienced on more than 100 days per year or lasts for at least two consecutive days on a weekly basis or headache is constant and unremitting. Bed rest not required or may be occasionally required.
Thirteen	 Headache experienced on more than 100 days per year or lasts for at least two consecutive days on a weekly basis or headache is constant and unremitting. Bed rest is required during most episodes.

Migraine headaches associated with transient neurological deficits including but not limited to hemiplegia, dysarthria and ocular muscle weakness is rated on individual merits.

Steps to Determine Headache Assessment

- **Step 1**: Determine the rating from **Table 20.8** (Other Impairment Headaches).
- **Step 2:** Does the Partially Contributing Table apply? If **yes**, then apply to rating at Step 1.
- **Step 3:** Determine the Quality of Life rating.
- **Step 4:** Add the ratings at Step 2 and Step 3.
- **Step 5:** If partial entitlement exists, apply to the rating at Step 4.

This is the Disability Assessment.

Table 20.9 - Other Impairment - Miscellaneous Neurological

Only one rating may be given for each entitled condition from **Table 20.9.** If more than one rating is applicable for an entitled condition, the ratings are **compared** and the **highest** selected.

Each bullet (•) represents one criterion. In order for a rating to be established for **Table 20.9**, only one criterion must be met at a level of impairment for that rating to be selected.

Table 20.9 - Other Impairment - Miscellaneous Neurological

Rating	Criteria
Four	 Documented cerebrovascular disease e.g. history of recurrent transient ischemic attacks; or Cerebral aneurysms not surgically repaired; or Facial tics (i.e. hemifacial spasm);or Intermittent trigeminal neuralgia* (tic douloureux); or Dysphagia from a neurological condition requiring avoidance of certain foods.
Nine	Trigeminal neuralgia* (tic douloureux) on most days.
Thirteen	Dysphagia with choking on liquids or semi-solid foods on a frequent basis.
Thirty-four	Dysphagia with nasal regurgitation or aspiration on a frequent basis.
Seventy-one	Dysphagia with inability to handle oral secretions without choking, requiring assistance and suctioning.

^{*}Trigeminal neuralgia with intractable pain (severe, persistent, ongoing pain that is unresponsive to the usual treatment modalities) is rated on individual merits.

Steps to Determine Miscellaneous Neurological Assessment

- **Step 1**: Determine the rating from **Table 20.9** (Other Impairment -Miscellaneous Neurological).
- **Step 2:** Does the Partially Contributing Table apply? If **yes**, then apply to rating at Step 1.
- **Step 3:** Determine the Quality of Life rating.
- **Step 4:** Add the ratings at Step 2 and Step 3.
- **Step 5:** If partial entitlement exists, apply to the rating at Step 4.

This is the Disability Assessment.

Note: If more than one entitled condition requires rating from **Table 20.9**, the steps must be repeated.