

Chapter 5

Neurological Impairment

INTRODUCTION

Loss of function tables (Tables 5.1–5.5)

Neurological impairment is measured by reference to multiple functions, many of which are rated using tables in other chapters. The additional functions considered in this chapter are:

- ◆ cognitive function (Table 5.1);
- ◆ communication (Tables 5.2 and 5.3); and
- ◆ sensory function (Table 5.4).

Ratings from one functional loss table are to be combined with ratings from any other table for a different loss of function from the same condition. Ratings from functional loss tables are not to be combined with ratings from Other Impairment tables for the same condition.

Other Impairment table (Table 5.6)

Table 5.6 lists specific impairment ratings for a variety of neurological conditions which are based on prognosis and, in some cases, pain. When ratings for the same condition can be made from Table 5.6 and a functional loss table, the higher rating is to be chosen.

Calculation of the impairment rating for an accepted neurological condition

Follow the steps below to determine the impairment rating for neurological conditions:

(Each step is elaborated in the following pages.)

STEP 1	Determine an impairment rating for functional loss from the accepted neurological condition, by applying Tables 5.1, 5.2, 5.3, 5.4, and 5.5, as applicable.	Page 104
STEP 2	Determine an impairment rating for functional loss from the accepted neurological condition, by applying other applicable chapters of this <i>Guide</i> .	Page 113
STEP 3	Determine a rating for Other Impairment from the accepted neurological condition, by applying Table 5.6 as applicable.	Page 113
STEP 4	<i>(Omit this step if no rating was given in Step 3.)</i> Combine the ratings obtained in Step 1 and Step 2, by applying Chapter 18 (Combined Values Chart). Compare the resultant combined rating with the rating obtained in Step 3. Take the higher rating.	Page 114

Step 1: Determine an impairment rating for functional loss from the accepted neurological condition, by applying Tables 5.1, 5.2, 5.3, 5.4, and 5.5, as applicable.

Cognitive function

“Cognition” means “the faculty of knowledge”. The cognitive function deals with such aspects of knowledge as acquisition (learning), retention and recall (memory), and use (reasoning and problem-solving).

Table 5.1 is applied only if an organic brain condition has been diagnosed. It is not to be applied to assess general mental capacity in a veteran with a condition of another body system unrelated to the brain condition. The impairment rating must relate only to cognitive deficits that were not present before the onset of the condition. Psychiatric conditions are to be assessed by applying Chapter 4 (Emotional and Behavioural).

Self-reports of deteriorating mental function must be interpreted with caution. Organic brain disease is often associated with a lack of insight or a 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 psychometric testing may be required.

Functional Loss
Table 5.1



**LOSS OF NEUROLOGICAL FUNCTION:
COGNITION**

Impairment Ratings	Criteria
NIL	<ul style="list-style-type: none"> • Negligible impairment: reasoning is comparable with that of peers. • Memory similar to that of peers: written notes, etc., used in the manner of busy people of all ages.
TEN	<ul style="list-style-type: none"> • Mild impairment: 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. • Mild but demonstrable 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, checklists and spouse.
TWENTY-FIVE	<ul style="list-style-type: none"> • Moderate impairment of memory: has frequent difficulty in recalling details of recent experiences; frequently misplaces objects; fails to follow through with intentions or obligations; tends to get lost more easily in unfamiliar areas. Compensation through use of aids, eg lists and diaries, is adequate. • Moderate impairment of problem solving ability, relies on accumulated knowledge. Suffers significant disadvantage in circumstances requiring complex decision-making or non-routine activities, i.e. when past decision-making is not directly relevant. Has reduced initiative, spontaneity, and capacity for abstract thinking.
FORTY	Symptoms as above, but more frequent and severe. Is partially able to compensate, but unable to function with complete independence, and needs some supervision.

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No age adjustment permitted for this table

**Functional
Loss Table 5.1
(cont'd)**

**LOSS OF NEUROLOGICAL FUNCTION:
COGNITION (continued)**

Impairment Ratings	Criteria
SIXTY	<ul style="list-style-type: none"> • Severe impairment: has difficulty in carrying out basic activities such as sequencing the steps needed for dressing and for preparing meals. • Planning/organisational ability is reduced. Is unable to function independently in new or complex situations. Shows markedly reduced initiative and spontaneity, and perseverative thinking. • Severe memory deficiency: is unable to retain any information about recent experiences. New learning is not possible after attention has been directed elsewhere. Is unable to work or live independently, needing supervision to avoid harm, eg from fire caused by forgetting to put out cigarettes or to turn off appliances. Has extreme difficulty in keeping track of finances, scheduled activities, social relationships, etc.
SEVENTY	<ul style="list-style-type: none"> • Gross impairment: is unable to initiate and sustain activities without supervision. Supervision and prompting are required for virtually all daily activity. Is unable to plan a course of action for the simplest activity. • Gross amnesic syndrome: is unable to acquire or recall new information. Constant supervision and care are required. Unable to recognise family, own reflection in mirror, etc. Is disoriented in familiar surroundings.

Ratings from one Functional Loss table may be combined with ratings from any other table for a different loss of function. Ratings from Functional Loss tables are not to be combined with ratings from Other Impairment tables for the same condition.

**No age adjustment
permitted for
this table**

Table 5.1 addresses memory and new learning ability as well as reasoning and problem-solving abilities. This requires:

- ◆ adequate levels of motivation and attention;
- ◆ restraint of impulsive tendencies;
- ◆ ability to organise, categorise and shift responses;
- ◆ use of feedback to modify behaviour; and
- ◆ capacity to evaluate final performance.

The ratings reflect increasing grades of severity.

Communication

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

Comprehension and expression are to be rated separately, by applying Tables 5.2 and 5.3 respectively. Impairment ratings from these tables are to be combined 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 condition.

Tables 5.2 and 5.3 are to be applied to rate neurological or neuromuscular conditions as well as local lesions involving the mechanisms of speech production. Communication may also be restricted by vision loss, hearing loss, or loss of hand function. Ratings are then to be made from Chapter 8, Chapter 7, or Chapter 3 respectively, instead of Tables 5.2 and 5.3.

Comprehension

Table 5.2 is to be applied to rate limitation of auditory or visual comprehension. Only one impairment rating is to be given from this table. If more than one criterion is applicable that which results in the higher rating is to be chosen.

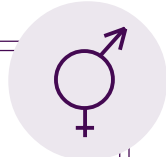
Expression

Table 5.3 is to be applied to rate limitation of speech production, as well as written and unspoken methods of expression. Only one impairment rating is to be made from this table. If more than one criterion is applicable, that which results in the higher rating is to be chosen.

Evaluation of speech production takes into account:

- ◆ *audibility*: the ability to speak loudly enough to be heard;
- ◆ *intelligibility*: the ability to articulate and to link phonetic units of speech with sufficient accuracy to be understood;
- ◆ *functional efficiency*: the ability to speak quickly enough, and to sustain the rate for a period; and
- ◆ *retrieval and manipulation* of language elements: expression of ideas.

**Functional Loss
Table 5.2**



**LOSS OF NEUROLOGICAL FUNCTION:
COMPREHENSION**

Impairment Ratings	Criteria
NIL	Normal or nearly normal comprehension.
FIVE	Can understand movies, radio programs or group discussions, but with some difficulty. Comprehension is good in most situations, but understanding is difficult in large groups, or when tired and upset. Has difficulty coping with rapid changes of topic.
TEN	<ul style="list-style-type: none"> • Can understand speech face-to-face, but confusion or fatigue occurs rapidly in any group. Is unable to cope with rapid change in topic, or with complex topics: is able to grasp the meaning of TV serials, but not more complex ideas. • Mild dyslexia: is able to grasp the meaning of basic newspaper and magazine articles, but has difficulty understanding details. Is unable to follow the storyline in books.
TWENTY-FIVE	<ul style="list-style-type: none"> • Can understand only simple sentences, and follow simple conversation when some points are repeated. • Moderate dyslexia: reading comprehension is limited to sentences and short paragraphs. Can follow simple two-to-three line instructions, and cope with shopping (and other) lists, but nothing more complex.
FORTY	<ul style="list-style-type: none"> • Can understand only single words. Shows some understanding of slowly-spoken simple sentences from context and gesture, although frequent repetition is needed. • Severe dyslexia: is able to read single words, to match words to pictures and to read labels and signs, but is unable to read instructions.
FIFTY	<ul style="list-style-type: none"> • Unable to understand simple instructions or yes/no questions, even with gesture. • Unable to read single words, labels or signs.

Ratings from one Functional Loss table may be combined with ratings from any other table for a different loss of function. Ratings from Functional Loss tables are not to be combined with ratings from Other Impairment tables for the same condition.

No age adjustment permitted for this table

Functional Loss
Table 5.3



**LOSS OF NEUROLOGICAL FUNCTION:
EXPRESSION**

Impairment Ratings	Criteria
NIL	Normal or nearly normal expression.
FIVE	Speech is of sufficient intensity and vocal quality for most everyday needs, eg: <ul style="list-style-type: none"> – 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 hesitation and word-retrieval problems; or – is permanently hoarse.
TEN	<ul style="list-style-type: none"> • Speech is of sufficient intensity and vocal quality for many of the needs of everyday speech, eg: <ul style="list-style-type: none"> – 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 impression of difficulty. • Converses in simple sentences on familiar topics, although word-finding problems are frequent, and has difficulty in explaining long or complex ideas. • Has mild dysgraphia: is unable to cope with more than short letters (about five lines) or postcards, which show both grammatical and spelling errors.
TWENTY	<ul style="list-style-type: none"> • Speech is of sufficient intensity and vocal quality for some of the needs of everyday speech, eg: <ul style="list-style-type: none"> – 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.

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**Functional
Loss Table 5.3
(cont'd)**



**LOSS OF NEUROLOGICAL FUNCTION:
EXPRESSION (continued)**

Impairment Ratings	Criteria
THIRTY	<ul style="list-style-type: none"> • Has moderate dysgraphia: is unable to write more than short sentences which include frequent spelling errors, eg has difficulty filling in bank forms. • Speech is of sufficient intensity and vocal quality for only a few of the needs of everyday speech, eg: <ul style="list-style-type: none"> – 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 unable to initiate conversation, but, with considerable effort, is able to respond in short simple sentences or phrases. • Has severe dysgraphia: is able to write only some recognisable words, eg items for a shopping list, or names of family.
FORTY	<ul style="list-style-type: none"> • Has no speech production, but is able to use non-verbal means of expression. • Is limited to single words or familiar social or stereotyped phrases requiring considerable listener inference. • Has agraphia: no functional writing ability, although is able to copy or write much-practiced sequences, such as own name.

Ratings from one Functional Loss table may be combined with ratings from any other table for a different loss of function. Ratings from Functional Loss tables are not to be combined with ratings from Other Impairment tables for the same condition.

**No age adjustment
permitted for
this table**

“Total Loss of Speech” is also mentioned in Table 24.1 (Degree of Incapacity for Specific Disabilities) in Chapter 24.

Sensory function

Table 5.4 is to be applied to rate sensory loss only. Lesions of nerves or nerve roots may also cause motor loss, which is to be rated independently by applying Chapter 3. Ratings may be made for sensory loss in the distribution of either a dermatome or a peripheral nerve, but not both for the same loss.

“Partial loss” refers either to a loss of less than the complete distribution of the nerve, or to altered sensation. Peripheral neuropathies with a “glove and stocking distribution” and “happy feet” are examples of this.

Functional Loss Table 5.4



LOSS OF NEUROLOGICAL FUNCTION: SENSORY LOSS

	Impairment Ratings		
	Partial Unilateral Loss	Total Unilateral or Partial Bilateral Loss	Total Bilateral Loss
Dermatome			
C2&3 (together)	0	5	10
C6&7 (together)	5	10	20
C8	0	5	10
L5&S1 (together)	0	5	10
S2&3&4 (together)	0	5	10
Hemianaesthesia (central)	15	30	—
Peripheral Nerve			
Greater auricular	0	5	10
Median	5	10	20
Ulnar	0	5	10
Radial	0	0	0
Posterior femoral cutaneous	0	5	10
Sciatic	0	5	10
Tibial (medial popliteal)	0	5	10
Pudendal	0	5	10

Ratings from one Functional Loss table may be combined with ratings from any other table for a different loss of function. Ratings from Functional Loss tables are not to be combined with ratings from Other Impairment tables for the same condition.

No age adjustment permitted for this table

Cranial nerves

Although related anatomically, cranial nerves represent diverse functions which are to be rated elsewhere in most cases. Sometimes no alternative tables exist, and a rating relating to loss of motor or sensory function is given.

Ratings from Table 5.5 can be combined with ratings from other tables relating to neurological function, but not with ratings from Table 5.6 for the same condition. The ratings listed are for complete loss of function. If partial losses exist the ratings are to be reduced proportionately.

Functional Loss
Table 5.5

LOSS OF NEUROLOGICAL FUNCTION: CRANIAL NERVES



Cranial Nerve	Function	Assessment to be made by application of:	Complete Unilateral Loss	Complete Bilateral Loss
I	Smell		0	5
II	Vision	Chapter 8		
III, IV, VI	Eye movement	Chapter 8		
V Trigeminal (sensory)	Ophthalmic division		5	10
	Maxillary division		5	10
	Mandibular division		5	10
	Chewing Speech	Chapter 6 Table 5.3		
VII	Taste		0	5
	Facial expression		10	20
	Chewing Speech	Chapter 6 Table 5.3		
VIII	Hearing	Chapter 7		
	Balance	Chapters 15 or 16		
IX, X, XI, XII	Swallowing	Chapter 6		
	Speech	Table 5.3		
XI	Shoulder Elevation		5	10

Ratings from one Functional Loss table may be combined with ratings from any other table for a different loss of function. Ratings from Functional Loss tables are not to be combined with ratings from Other Impairment tables for the same condition.

No age adjustment permitted for this table

Step 2: Determine an impairment rating for functional loss from the accepted neurological condition, by applying other applicable chapters of this *Guide*.

Assessment of conditions of the central and peripheral nervous system may require the application of tables from Chapter 3 (upper and lower limb function), Chapter 6 (eating and swallowing, faecal continence), Chapter 7 (hearing), Chapter 8 (vision), Chapter 9 (urinary continence), and Chapter 10 (sexual function). A neurological rating may involve the combination of multiple ratings, each relating to the loss of a different function. Cerebrovascular accidents, for example, may require ratings for hemiparesis of the upper limb, hemiparesis of the lower limb, hemianopia and dysphasia.

Step 3: Determine a rating for Other Impairment from the accepted neurological condition, by applying Table 5.6 as applicable.

Neurological Other Impairment

Most neurological conditions are associated with a readily identifiable functional deficit. Table 5.6 is to be applied to rate those conditions where such deficit is minimal, and yet a significant neurological condition exists. Many of the conditions referred to in Table 5.6 may result in significant loss of function. Ratings from Table 5.6 and the functional loss table are to be compared, and the higher rating is to be chosen.

**Other
Impairment
Table 5.6**



NEUROLOGICAL OTHER IMPAIRMENT

Impairment Ratings	Criteria
NIL	<ul style="list-style-type: none"> • Headaches of any type, infrequent and easily controlled. • History of epilepsy no longer necessitating medication.
FIVE	<ul style="list-style-type: none"> • Documented cerebrovascular disease, eg history of transient ischaemic attacks; cerebrovascular accident with good return of function; pathological narrowing of arteries demonstrated with Doppler studies or angiography (but not calcification shown on plain X-ray). • Aneurysms (not surgically corrected). • Tics, hemifacial spasm. • Epilepsy requiring daily medication.
TEN	<ul style="list-style-type: none"> • Progressively deteriorating neurological disorders associated with significantly reduced life expectancy, eg multiple sclerosis, Alzheimer's disease. • Tic douloureux occurs intermittently.
TWENTY	<ul style="list-style-type: none"> • Rapidly progressive neurological disorders associated with significantly reduced life expectancy, eg motor neurone disease. • Tic douloureux occurs frequently.

Ratings from this table and the Functional Loss table are to be compared and the higher rating is to be chosen — see Step 4.

No age adjustment permitted for this table

Chapter 15 (Intermittent Impairment) may be applied to rate cases with more frequent or severe episodes.

Step 4: (Omit this step if no rating was given in Step 3.) Combine the ratings obtained in Steps 1 and 2, by applying Chapter 18 (Combined Values Chart). Compare the resultant rating with the rating obtained in Step 3. Take the higher. This is the final impairment rating for the accepted neurological condition.