2017/03/30-04

THE WORKERS' COMPENSATION BOARD OF BRITISH COLUMBIA

RESOLUTION OF THE BOARD OF DIRECTORS

RE: The Permanent Disability Evaluation Schedule

WHEREAS:

Pursuant to section 82 of the *Workers Compensation Act,* RSBC 1996, Chapter 492 and amendments thereto ("*Act*"), the Board of Directors must set and revise as necessary the policies of the Board of Directors, including policies respecting compensation, assessment, rehabilitation, and occupational health and safety;

AND WHEREAS:

Section 23(1) of the *Act* provides that if a permanent partial disability results from a worker's injury, the Workers' Compensation Board ("WorkSafeBC") must estimate the impairment of earning capacity from the nature and degree of the injury, and pay the worker compensation that is a periodic payment that equals 90% of WorkSafeBC's estimate of the loss of average net earnings resulting from the impairment;

AND WHEREAS:

Section 23(2) of the *Act* provides that WorkSafeBC may compile a rating schedule of percentages of impairment of earning capacity for specified injuries or mutilations which may be used as a guide in determining the compensation payable in permanent disability cases;

AND WHEREAS:

WorkSafeBC has adopted the *Permanent Disability Evaluation Schedule* ("PDES") found in Appendix 4 of the *Rehabilitation Services & Claims Manual*, Volume II (*RS&CM*), as the schedule used for guidance in the measurement of partial disability under section 23(1);

AND WHEREAS:

The PDES is reviewed on an annual basis to ensure it remains current with developments in the medical and scientific literature;

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AND WHEREAS:

The Policy, Regulation and Research Division has undertaken stakeholder consultation on this issue and has advised the Board of Directors on the results of the consultation;

THE BOARD OF DIRECTORS RESOLVES THAT:

1. Amendments to the PDES contained in Appendix 4 of the *RS&CM*, attached as Appendix A of this Resolution, are approved.

2. This Resolution is effective May 1, 2017 and applies to all decisions made on or after May 1, 2017.

3. This Resolution constitutes a policy decision of the Board of Directors.

DATED at Richmond, British Columbia, March 30, 2017.

By the Workers' Compensation Board

JOHN BECKETT, CRSP, CPHR, MBA, ICD.D
CHAIR, BOARD OF DIRECTORS

APPENDIX A

PERMANENT DISABILITY EVALUATION SCHEDULE 2016 REVIEW
***REHABILITATION SERVICES & CLAIMS MANUAL*, VOLUME II**

Additions in Bold, Deletions Struckthrough

I. Introduction

The Permanent Disability Evaluation Schedule (the "Schedule") was developed by WorkSafeBC based on consideration of expert medical opinion, current medical/scientific literature and schedules from other jurisdictions and organizations, including but not limited to various editions of the American Medical Association *Guides to the Evaluation of Permanent Impairment* (the "AMA Guides").

As per section 23(2) of the *Act*, the Schedule is used for guidance in the measurement of partial disability under section 23(1) of the *Act*. The Schedule attributes a percentage of total disability to each of the specified disablements. For example, an amputation of the arm, middle, third of humerus, is indicated to be 65%. When that percentage rate is applied, it means that a worker will receive an award under section 23(1) based on 65% of 90% of average net earnings as determined by the *Act*.

The Schedule does not necessarily determine the final amount of the section 23(1) award. The Board may take other factors into account. Thus, the Schedule provides a guideline or starting point for the measurement of disability, rather than a fixed result (see policy item #39.10, *Permanent Disability Evaluation Schedule*).

It is not possible to list every disability in the Schedule. However, the Schedule can be used for guidance if a disability is similar to one that is listed. If a disability is not covered in the Schedule, other information regarding disability assessment may be consulted, including expert medical opinion, current medical/scientific literature and schedules from other ~~and~~ jurisdictions and organizations.

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III. Upper Extremity

C. Partial Loss of Range of Motion

Disability from partial loss of range of motion in the upper extremity is proportional to the amount of movement lost, applied to the complete immobility rating:

$$\frac{loss\ of\ range\ of\ motion}{normal\ range\ of\ motion} \times immobility\ rating\ = loss\ of\ range\ of\ motion\ rating$$

The following principles apply when rating partial loss of range of motion in an upper extremity:

- A loss of range of motion of ~~less than~~ five degrees **or less** generally does not impair a worker's earning capacity to an ascertainable degree.

- When assessing loss of range of motion in an upper extremity, there is usually a normal side for comparison. In instances when a normal side does not exist, reference is made to the normal range of motion values set out below.

- Loss of hyperextension in an unusually flexible worker does not result in a disability. The loss of range of motion in the injured extremity of an unusually flexible worker is compared with the normal range of motion values set out below.

Upper Extremity Normal Range of Motion Values

	Degrees
Shoulder	
Flexion	158
Extension	53
Abduction	170
Adduction	50
*Internal Rotation	70
*External Rotation	90

III. Upper Extremity

*Arm in abduction of 90 degrees; if unable to achieve this degree of abduction, internal and external rotation is measured, with the arms at the highest abduction available to injured shoulder bilaterally.

E. Miscellaneous Conditions and Surgical Procedures

Unless otherwise specified, disability ratings for miscellaneous conditions and surgical procedures involving the upper extremity are added to the other applicable ratings for immobility, loss of range of motion and/or loss of strength in the affected extremity.

	Percentage
Shoulder replacement arthroplasty	6.5
Elbow replacement arthroplasty	5.8
Biceps tendon rupture (with no surgical correction)	
Proximal	1.5
Distal	2

If surgical repair of a biceps tendon rupture is undertaken, disability is rated based on loss of range of motion and loss of strength resulting from the accepted injury and surgical repair, and not the above values. The above ratings for biceps tendon rupture with no surgical correction include consideration of associated loss of range of motion and loss of strength.

Acromioclavicular (AC) or lateral clavicular joint resection	3
Distal clavicular joint resection	3
Sternoclavicular joint resection	3
Radial head resection (with or without prosthetic replacement)	3

Resurfacing or partial arthroplasties merit the same disability rating as a complete arthroplasty.

V. Hands

B. Immobility of Joints (Arthrodesis or Functional Ankylosis)

Immobility of the interphalangeal (IP) joint, metacarpophalangeal (MCP) joint or the carpometacarpal (CMC) joint of the thumb, in good functional position, is accorded one-half of the amputation value at those levels.

Immobility of the distal interphalangeal (DIP) joint, proximal interphalangeal (PIP) joint or MCP joint of a finger, in good functional position, is accorded three-quarters of the amputation value at those levels.

Immobility of a joint in poor functional position may, on a judgment basis, approach the value of an amputation.

C. Partial Loss of Range of Motion

1. General

Partial loss of range of motion in the digits is calculated as set out below under items 2 to 4.

The following principles apply to assessment of disability from partial loss of range of motion:

- A loss of range of motion of ~~less than~~ five degrees **or less** generally does not impair a worker's earning capacity to an ascertainable degree.

- For assessment of loss of range of motion in the finger and thumb joints, comparison is made with the corresponding joints of the opposite hand. If the latter are also abnormal or are not available, then the findings would be compared to the normal range of motion values set out in item 5 below.

- Loss of hyperextension in an unusually flexible worker does not result in a disability. The loss of range of motion in the injured digit of an unusually flexible worker would be compared with the normal range of motion values set out below.

V. Hands

2. Finger(s)

Partial loss of range of motion in the finger(s) is calculated as:

$$\frac{loss\ of\ range\ of\ motion}{normal\ range\ of\ motion} \times {}^{3}/_{4} \times total\ amputation\ value\ of\ the\ joint(s)$$

This formula is used as it is normally considered that a fused finger joint is equal to three-quarters of the value of an amputation at the same level.

VI. Lower Extremity

F. Partial Loss of Range Of Motion

Disability from partial loss of range of motion in the lower extremity is proportional to the amount of movement lost, applied to the complete immobility rating:

$$\frac{loss\ of\ range\ of\ motion}{normal\ range\ of\ motion} \times immobility\ rating\ = loss\ of\ range\ of\ motion\ rating$$

The following principles apply when rating partial loss of range of motion in a lower extremity:

- A loss of range of motion of ~~less than~~ five degrees **or less** generally does not impair a worker's earning capacity to an ascertainable degree.

- When assessing loss of range of motion in a lower extremity, there is usually a normal side for comparison. In instances when a normal side does not exist, reference is made to the normal range of motion values set out below.

- Loss of hyperextension in an unusually flexible worker does not result in a disability. The loss of range of motion in the injured extremity of an unusually flexible worker would be compared with the normal range of motion values set out below.

Lower Extremity Normal Range of Motion Values

	Degrees
Hip	
Flexion	113
Extension	28
Abduction	48
Adduction	31
Internal Rotation	30
External Rotation	45
Knee	
Flexion	134
Extension	0

VI. Lower Extremity

Ankle

Dorsiflexion..... 18
Plantar Flexion..... 40

Great Toe

IPJ Flexion.....60
Extension.....0
MPJ Flexion (Plantar Flexion).....37
Extension (Dorsi Flexion) 63

Fraction of full movement

Midtarsal .....¼, ½, ¾ or full

Subtalar **..... ¼, ½, ¾ or full**

~~Inversion.....¼, ½, ¾ or full~~
~~Eversion .....¼, ½, ¾ or full~~

G. Loss of Strength

A disability rating for loss of strength in the lower extremity is assessed per leg. Such a disability rating is only to be applied if there is strong, consistent, objective evidence of loss of strength that is not taken into account by the amputation or loss of range of motion value, and not covered by peripheral nerve ratings. In addition, there must be a clear pathological explanation for the weakness.

Loss of strength in the lower extremity is assessed as follows:

Strength Loss	**Definition**	**Percentage**
Normal	No loss of function	0
Mild	Active movement against strong resistance	1
Moderate	Active movement against slight resistance	3

VI. Lower Extremity

Marked	Movement against gravity	5
Complete	No power	7

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VIII. Peripheral Nervous System Conditions

A. Criteria for Assessing Loss of Peripheral Nerve Function

The criteria for assessing loss of peripheral nerve function are as follows:

1. Sensory

Normal	No loss of function
Mild	Slight paresthesia/hypesthesia **(or allodynia/hyperesthesia/dysesthesia)**
Moderate	Moderate paresthesia/hypesthesia **(or allodynia/hyperesthesia/dysesthesia)**
Marked	As above (moderate) + loss of stereognosis + ulcers/trophic changes or marked paresthesia/hypesthesia **(or allodynia/hyperesthesia/dysesthesia)**
Complete	No sensation

2. Motor

Normal	No loss of function
Mild	Active movement against strong resistance
Moderate	Active movement against slight resistance
Marked	Movement against gravity
Complete	No power

Sensory and motor awards for loss of peripheral nerve function include consideration of consequent loss of range of motion and loss of strength, unless there is an additional mechanical, anatomical or other underlying pathological reason for limitation of these functions.

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VIII. Peripheral Nervous System Conditions

B. Table of Awards for Peripheral Nerve Conditions

(Values listed in this table are percentages of total disability)

		Sensory	Motor
Long Thoracic Nerve			
	Normal	~~0~~**n/a**	~~n/a~~**0**
	Mild	~~2~~**n/a**	~~n/a~~**2**
	Moderate	~~3~~**n/a**	~~n/a~~**3**
	Marked	~~4~~**n/a**	~~n/a~~**4**
	Complete	~~5~~**n/a**	~~n/a~~**5**
Median Nerve			
At elbow	Normal	0	0
	Mild	5	5
	Moderate	10	10
	Marked	15	15
	Complete	20	20
At wrist	Normal	0	0
	Mild	3	2
	Moderate	6	4
	Marked	9	6
	Complete	12	8
Ulnar Nerve			
At elbow	Normal	0	0
	Mild	0.75	3
	Moderate	1.5	6
	Marked	2.25	10
	Complete	3	16
At wrist	Normal	0	0
	Mild	0.6	2
	Moderate	1.2	4
	Marked	1.8	8
	Complete	2.4	10

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VIII. Peripheral Nervous System Conditions

Radial Nerve			
	Normal	0	0
	Mild	0.5	4.5
	Moderate	1	9
	Marked	1.5	13.5
	Complete	2	18
		Sensory	**Motor**
Axillary Nerve			
	Normal	0	0
	Mild	0.15	1.35
	Moderate	0.3	2.7
	Marked	0.45	4.05
	Complete	0.6	5.4
Lateral Cutaneous Nerve of the Forearm			
	Normal	0	n/a
	Mild	0.5	n/a
	Moderate	1	n/a
	Marked	1.5	n/a
	Complete	2	n/a
Medial Cutaneous Nerve of the Forearm			
	Normal	0	n/a
	Mild	0.5	n/a
	Moderate	1	n/a
	Marked	1.5	n/a
	Complete	2	n/a
Musculocutaneous Nerve of the Brachial Plexus			
	Normal	0	0
	Mild	~~.37~~**.5**	4.5
	Moderate	~~.75~~**1**	9
	Marked	~~1.12~~**1.5**	13.5
	Complete	~~1.5~~**2**	18

VIII. Peripheral Nervous System Conditions

Sciatic Nerve			
	Normal	0	0
	Mild	3	4.5
	Moderate	6	9
	Marked	9	13.5
	Complete	12	18
Femoral Nerve			
	Normal	0	0
	Mild	0.625	2.5
	Moderate	1.25	5
	Marked	1.875	7.5
	Complete	2.5	10
Obturator Nerve			
	Normal	**0**	**0**
	Mild	**0.625**	**2.5**
	Moderate	**1.25**	**5**
	Marked	**1.875**	**7.5**
	Complete	**2.5**	**10**
Saphenous Nerve			
	Normal	0	n/a
	Mild	1	n/a
	Moderate	2	n/a
	Marked	3	n/a
	Complete	4	n/a
Common Peroneal Nerve (Lateral Popliteal)			
	Normal	0	0
	Mild	1	5
	Moderate	2	10
	Marked	3	15
	Complete	4	20
Deep Peroneal Nerve (Anterior Tibial)			
	Normal	0	0
	Mild	0.2	2.5
	Moderate	0.3	5
	Marked	0.4	10
	Complete	0.5	15

VIII. Peripheral Nervous System Conditions

Superficial Peroneal Nerve (Musculocutaneous)			
	Normal	0	0
	Mild	0.4	0.5
	Moderate	0.6	1
	Marked	0.8	2
	Complete	1	2.5
Tibial Nerve (Posterior Tibial or Medial Popliteal)			
	Normal	0	0
	Mild	2	3
	Moderate	4	6
	Marked	6	9
	Complete	8	12
		Sensory	**Motor**
Sural Nerve			
	Normal	0	n/a
	Mild	0.5	n/a
	Moderate	1	n/a
	Marked	1.5	n/a
	Complete	2.0	n/a
Lateral Femoral Cutaneous Nerve (Lateral Cutaneous Nerve of the Thigh)			
	Normal	0	n/a
	Mild	0.5	n/a
	Moderate	1	n/a
	Marked	1.5	n/a
	Complete	2.0	n/a
Posterior Cutaneous Nerve of the Thigh			
	Normal	0	n/a
	Mild	0.5	n/a
	Moderate	1.0	n/a
	Marked	1.5	n/a
	Complete	2.0	n/a

Infraorbital nerve sensory loss is rated at 1% of total disability.

Genitofemoral nerve injury – loss of cremasteric reflex. Loss of the cremasteric reflex does not constitute disability.

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IX. Nerve Root Conditions

A. Criteria for Assessing Loss of Nerve Root Function

The criteria for assessing loss of nerve root function are as follows:

1. Sensory

Normal	No loss of function
Mild	Slight paresthesia/hypesthesia **(or allodynia/hyperesthesia/dysesthesia)**
Moderate	Moderate paresthesia/hypesthesia **(or allodynia/hyperesthesia/dysesthesia)**
Marked	As above (moderate) + loss of stereognosis + ulcers/trophic changes or marked paresthesia/hypesthesia **(or allodynia/hyperesthesia/dysesthesia)**
Complete	No sensation

2. Motor

Normal	No loss of function
Mild	Active movement against strong resistance
Moderate	Active movement against slight resistance
Marked	Movement against gravity
Complete	No power

Sensory and motor awards for loss of nerve root function include consideration of consequent loss of range of motion and loss of strength, unless there is an additional mechanical, anatomical or other underlying pathological reason for limitation of these functions.

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X. Spine

A. General

The following principles apply to assessment of disability in the spine:

- Anatomical loss or damage resulting from injury or surgery may contribute to physical disability of the spine. When anatomic and/or surgical disability is present as well as loss of range of motion of the spine, the final disability rating is based on the greater of the two.

- Range of motion of the spine is difficult to assess on a consistent basis because the joints of the spine are small, inaccessible and not externally visible. Only movement of a region of the spine can be measured; it is not possible to measure mobility of a single vertebra.

- A loss of range of motion in the spine of ~~less than~~ three degrees **or less** generally does not impair a worker's earning capacity to an ascertainable degree.

Total paraplegia is rated as 100% of total disability.

Total quadriplegia is rated as 100% of total disability.

A vertebrectomy merits an award equivalent to the rating for a two-level fusion, plus the rating for total collapse of the removed vertebra.

B. Cervical Spine

	Percentage
Compression fractures	
Up to 50% compression	0 – 2
Over 50% compression	2 – 4
Impairment resulting from surgical loss of intervertebral disc C1 to D1	2 per level
Ankylosis (fusion) C1 to D1 including surgical loss of intervertebral disc	3 per level
C1 Jefferson Fracture	2
Loss of range of motion	
Flexion	0 – 6
Extension	0 – 3

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X. Spine

Lateral flexion right and left ..... each 0 – 2
Rotation right and left ..... each 0 – 4

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XI. Central Nervous System Conditions

G. Impairments of the Upper Extremities

Impairment of one upper extremity:

		Percentage
Grade 1	Individual can use the involved extremity for self-care, daily activities, and holding, but has difficulty with digital dexterity	1 – 9
Grade 2	Individual can use the involved extremity for self-care, can grasp and hold objects with difficulty, but has no digital dexterity	10 – ~~1~~**24**
Grade 3	Individual can use the involved extremity, but has difficulty with self-care activities	25 – 39
Grade 4	Individual cannot use the involved extremity for self-care or daily activities	40 – 60

Impairment of both upper extremities:

		Percentage
Grade 1	Individual can use both upper extremities for grasping, and holding, but has difficulty with digital dexterity	1 – 19
Grade 2	Individual can use both upper extremities for self-care, can grasp and hold objects with difficulty, but has no digital dexterity	20 – 39
Grade 3	Individual can use both upper extremities, but has difficulty with self-care activities	40 – 79
Grade 4	Individual cannot use upper extremities	80+

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XIII. Traumatic Hearing Loss

Percentage

Complete loss of hearing in one ear with no loss in the other..... 3

Complete loss of hearing in both ears..... 30

A. Unilateral Traumatic Hearing Loss

Difference in ~~L~~loss of hearing in decibels (dB) measured in affected ear (ANSI)	**Percentage**
20 – 29	1
30 – 39	2
40 or more	3

The loss of hearing due to the compensable condition expressed in dB in the first column is the **difference in the** arithmetic average of thresholds of hearing measured in each ear in turn by pure tone audiometry at frequencies of 500, 1,000, 2,000 and 3,000 Hz.

XVIII. Urogenital Tract Conditions

Note: Normal creatinine clearance
- males 130-200 L/24h (90-139 ml/min)
- females 115-180 L/24h (80-125 ml/min)

Note: A ~~claimant~~**worker** with only one functioning kidney may have normal renal function due to the efficiency of the remaining kidney; however, the normal safety factor is lost. Value for a ~~claimant~~**worker** with one functioning kidney loss is 15%.

B. Bladder Disorders

		Percentage
Grade 1	Clinical signs or sequelae requiring occasional treatment	0 – 5
Grade 2	Clinical signs or sequelae requiring continuing medical supervision and medication (e.g. recurring cystitis, incontinence controlled by medication)	6 – 15
Grade 3	Clinical signs or sequelae incompletely controlled with medical and surgical treatment (e.g. retention or partial intermittent incontinence)	16 – 30
Grade 4	Clinical signs or sequelae not controlled with medical and surgical treatment (e.g. total incontinence or complete urinary retention)	31 – 60

C. Urethral Disorders

		Percentage
(a)	Stricture	
	Grade 1 Requiring occasional dilation	0 – 5
	Grade 2 Requiring dilation	6 – 10
(b)	Fistula(e)	15
(c)	Diverticula(e) with recurrent complications	5

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XXI. Respiratory System Conditions

Tracheal obstruction

- minor ..... 0 – ~~5~~**10**
- significant ..... ~~6~~**11** – ~~10~~**25**

Tracheostomy scar without obstruction..... 0

Permanent tracheostomy ..... ~~2~~**25**

C. Lower Respiratory System Conditions

1. General Principles

(a) An anatomical change such as circumscribed pleural plaque represents an impairment based on anatomic structure; however, if there is no abnormality of lung function, and no decrease in the ability to perform activities of daily living, then the impairment rating assigned would be zero percent.

(b) A specific impairment is established by considering the severity and prognosis of the condition and how the impairment affects the individual's ability to perform activities of daily living.

(c) Symptomatic assessment, though diagnostically useful, provides limited quantitative information, and should not be used as the sole criterion for assessing impairment.

(d) Pulmonary function tests are the most useful clinical studies for assessing pulmonary functional changes.

2. Symptoms

(a) Dyspnea
- most common symptom in pulmonary impairment.
- non-specific - cardiac, hematologic metabolic, neurologic, psychological or physical fitness causes