NWT AND NUNAVUT PERMANENT IMPAIRMENT RATING GUIDE

Effective January 1, 2005

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INTRODUCTION

SCOPE

These guidelines are to be used for the purpose of assessing permanent impairment resulting from illness and injury under the jurisdiction of the Workers' Compensation Board of the Northwest Territories. The ratings contained in this Guide are percentages of permanent impairment of the whole person with the maximum rating being one hundred percent (100%).

IMPAIRMENT DEFINITION

Impairment has been defined as "any loss or abnormality of psychological, physiological or anatomical structure or function" by the World Health Organization. Permanent impairment is defined as that impairment which remains after the passage of a sufficient period of time to allow maximal recovery and when further medical or surgical interventions will have negligible impact on restoration of function. Pain and suffering do not constitute a measurable impairment and therefore are not assigned a permanent impairment rating.

DISABILITY DEFINITION

Disability is defined as a restriction or lack of ability to perform an activity as the result of an impairment. The Board's medical advisor(s) assesses, evaluates and presents a recommended whole person permanent impairment rating to the Board's pension specialist. The pension specialist converts the permanent impairment rating to institute a permanent disability award pursuant to Section 22 of the *Workers' Compensation Act*.

IMPAIRMENT EVALUATION

Impairment is a medical issue assessed by medical means. Permanent impairment resulting from injury may be evaluated by anatomic, functional or diagnostic means where provided in these guidelines. While some impairments may be evaluated by determining the range of motion of an extremity, others are better evaluated by anatomic loss or by diagnostic category. Where options exist, the evaluation method which best reflects the level of permanent impairment is used in the assessment.

Where permanent impairment exisits, the minimum permanent impairment rating will be 0.5% and the maximum rating will be 100%. Permanent impairment ratings will be rounded off to the nearest 0.5%.

ASSESSMENT PROCESS

The permanent impairment rating is determined by either direct assessment examination and evaluation by the Board's medical advisor(s) or assigned by the Board's medical advisor(s) after review of the examination and assessment report of a physician designated by the Board. A review of all pertinent medical documents, including investigational reports, will be performed by the Board's medical advisor(s) prior to assigning a rating.

Permanent impairment evaluations are usually performed six months after closure of a claim where permanent impairment exists or is likely to exist. Certain exceptions, such as finger amputations, may be assessed at an earlier date while complex injuries, including brain injury, may require a much longer period of time for impairment stabilization.

MEDICAL JUDGEMENT

Inherent in evaluation of permanent impairment is physician judgement derived from history, physical examination findings, clinical experience and skill in applying the guidelines to the assessment results. Judgement is also required when permanent impairments do not lend themselves to exact measurement. In such cases, the schedule rating (or range) will be used as a guide and the assessing medical advisor will use judgement in estimating the percentage of permanent impairment. The medical advisor may use the American Medical Association "Guides to the Evaluation of Permanent Impairment" (4th Edition) as a reference material source. Certain categories in the NWT guidelines specifically defer to the AMA Guides 4th Edition for the impairment evaluation.

Schedule ratings in this Guide refer to the percentage of whole person permanent impairment for specific injuries. In straightforward cases such as amputation and blindness, the impairment is assessed at the percentage rating shown in the schedule.

COMBINING

Permanent impairment ratings will be combined using the combined values table (at the end of the Guide) where multiple body part impairments exist.

ENHANCEMENTS

Where bilateral injuries involve parts of the body which perform identical function, such as both hands or ankles, an enhancement factor of up to 50% of the permanent impairment rating of the less impaired side will be considered. The enhancement factor is added to the lower impairment rating prior to combining the bilateral permanent impairment ratings.

An enhancement factor of up to 50% of a permanent impairment rating of an extremity is indicated when an amputation of the contralateral limb is present prior to the compensable injury.

TOTAL PERMANENT IMPAIRMENT

In keeping with Section 22(2) of the Workers' Compensation Act, a rating of 100% whole person permanent impairment will be assigned in all cases where the injuries include:

a) total and permanent loss of sight both eyes.
b) loss of both feet at or above the ankle.
c) loss of both hands at or above the wrists.
d) the loss of one hand at or above the wrist and one foot at or above the ankle.
e) any injury resulting in permanent and complete paralysis of legs or arms or one leg and one arm.
f) any injury to the head resulting in an incurable incapacitating mental disorder.

SPECIAL SENSES

Effective January 1, 2005

SPECIAL SENSES

SENSE OF SMELL

	Whole Person Impairment %
Complete loss of sense of smell (including impairment of sense of taste)	3%

LOSS OF VISION

	Whole Person Impairment %
Corneal scarring depending on location	0 – 5%
peripheral location	0 – 2%
central visual field	2 – 5%
Enucleation of one eye	18%
Total loss of vision, one eye	16%
Lens replacement, cataract or aphakia will be rated at 5% or the visual acuity of the eye, whichever is greatest	5%
Bilateral lens replacement, cataract or aphakia will be rated at 10% or visual acuity, whichever is greatest	10%
Hemianopsia, right field	25%
Hemianopsia, left field	20%
Diplopia, all fields	10%
Scotoma, depending on location and extent	0 – 16%
peripheral	0 – 5%
central	5 – 10%
macular	up to 16%
Total loss of vision, both eyes	100%

PARTIAL LOSS OF VISION

	Whole Person Impairment %
Best Corrected Vision 20/30 Metric 6 Scale 6/10	0.5%
Best Corrected Vision 20/40 Metric 6 Scale 6/12	1%
Best Corrected Vision 20/50 Metric 6 Scale 6/15	2%
Best Corrected Vision 20/60 Metric 6 Scale 6/20	4%
Best Corrected Vision 20/80 Metric 6 Scale 6/24	6%
Best Corrected Vision 20/100 Metric 6 Scale 6/30	8%
Best Corrected Vision 20/200 Metric 6 Scale 6/60	14%
Best Corrected Vision 20/400 Metric 6 Scale 6/120	16%

Partial loss of vision in both eyes will be calculated according to the above schedule. An enhancement factor of 84/16 is used for the better eye, i.e., the poorer eye is rated according to the above schedule and the better eye is rated according to the same schedule but multiplied by 84/16. The sum of the two gives the combined rating.

LOSS OF SENSE OF HEARING

When calculating disability due to loss of hearing, the ISO audiometric calibration will be used and the hearing loss will be averaged at 500, 1,000, 2,000 and 3,000 hertz. No presbycusis factor will be deducted.

In order to merit an award, there must be an average hearing loss of at least 30 decibels in one ear. A hearing loss averaging 80 decibels is considered to be total loss of hearing in that ear.

	Whole Person Impairment %
Deafness, complete one ear	5%
Deafness, complete both ears	30%

UNILATERAL LOSS OF HEARING

When dealing with unilateral hearing loss, the chief cause is due to loss of stereocusis. For partial, unilateral hearing loss, therefore, the average hearing loss in the unaffected ear is subtracted from the average hearing loss in the affected ear and the difference determines the disability rating.

	Whole Person Impairment %
Difference of 30 - 39 dbs	1%
Difference of 40 - 49 dbs	2%
Difference of 50 - 59 dbs	3%
Difference of 60 - 69 dbs	4%
Difference of 70 dbs or greater	5%

BILATERAL PARTIAL HEARING LOSS

LOSS OF DECIBELS	PERCENT	LOSS OF DECIBELS	PERCENT
30.00	0.1000	39.25	0.6550
30.25	0.1150	39.50	0.6700
30.50	0.1300	39.75	0.6850
30.75	0.1450	40.00	0.7000
31.00	0.1600	40.25	0.7150
31.25	0.1750	40.50	0.7300
31.50	0.1900	40.75	0.7450
31.75	0.2050	41.00	0.7600
32.00	0.2200	41.25	0.7750
32.25	0.2350	41.50	0.7900
32.50	0.2500	41.75	0.8050
32.75	0.2650	42.00	0.8200
33.00	0.2800	42.25	0.8350
33.25	0.2950	42.50	0.8500
33.50	0.3100	42.75	0.8650
33.75	0.3250	43.00	0.8800
34.00	0.3400	43.25	0.8950
34.25	0.3550	43.50	0.9100
34.50	0.3700	43.75	0.9250
34.75	0.3850	44.00	0.9400
35.00	0.4000	44.25	0.9550
35.25	0.4150	44.50	0.9700
35.50	0.4300	44.75	0.9850
35.75	0.4450	45.00	1.0000
36.00	0.4600	45.25	1.0300
36.25	0.4750	45.50	1.0450
36.50	0.4900	45.75	1.0600
36.75	0.5050	46.00	1.0800
37.00	0.5200	46.25	1.1000
37.25	0.5350	46.50	1.1200
37.50	0.5500	46.75	1.1400
37.75	0.5650	47.00	1.1600
38.00	0.5800	47.25	1.1800
38.25	0.5950	47.50	1.2000
38.50	0.6100	47.75	1.2200
38.75	0.6250	48.00	1.2400
39.00	0.6400	48.25	1.2600

LOSS OF DECIBELS	PERCENT	LOSS OF DECIBELS	PERCENT
48.50	1.2800	58.25	2.1250
48.75	1.3000	58.50	2.1500
49.00	1.3200	58.75	2.1750
49.25	1.3400	59.00	2.2000
49.50	1.3600	59.25	2.2250
49.75	1.3800	59.50	2.2500
50.00	1.4000	59.75	2.2750
50.25	1.4200	60.00	2.3000
50.50	1.4400	60.25	2.3250
50.75	1.4600	60.50	2.3500
51.00	1.4800	60.75	2.3750
51.25	1.5000	61.00	2.4000
51.50	1.5200	61.25	2.4250
51.75	1.5400	61.50	2.4500
52.00	1.5600	61.75	2.4750
52.25	1.5800	62.00	2.5000
52.50	1.6000	62.25	2.5250
52.75	1.6200	62.50	2.5500
53.00	1.6400	62.75	2.5750
53.25	1.6600	63.00	2.6000
53.50	1.6800	63.25	2.6250
53.75	1.7000	63.50	2.6500
54.00	1.7200	63.75	2.6750
54.25	1.7400	64.00	2.7000
54.50	1.7600	64.25	2.2750
54.75	1.7800	64.50	2.7500
55.00	1.8000	64.75	2.7750
55.25	1.8250	65.00	2.8000
55.50	1.8500	65.25	2.8300
55.75	1.8750	65.50	2.8600
56.00	1.9000	65.75	2.8900
56.25	1.9250	66.00	2.9200
56.50	1.9500	66.25	2.9500
56.75	1.9750	66.50	2.9800
57.00	2.0000	66.75	3.0100
57.25	2.0250	67.00	3.0400
57.50	2.0500	67.25	3.0700
57.75	2.0750	67.50	3.1000
58.00	2.1000	67.75	3.1300

LOSS OF DECIBELS	PERCENT	LOSS OF DECIBELS	PERCENT
68.00	3.1600	74.75	3.9700
68.25	3.1900	75.00	4.0000
68.50	3.2200	75.25	4.0500
68.75	3.2500	75.50	4.1000
69.00	3.2800	75.75	4.1500
69.25	3.3100	76.00	4.2000
68.50	3.3400	76.25	4.2500
69.75	3.3700	76.50	4.3000
70.00	3.4000	76.75	4.3500
70.25	3.4300	77.00	4.4000
70.50	3.4600	77.25	4.4500
70.75	3.4900	77.50	4.5000
71.00	3.5200	77.75	4.5500
71.25	3.5500	78.00	4.6000
71.50	3.5800	78.25	4.6500
71.75	3.6100	78.50	4.7000
72.00	3.6400	78.75	4.7500
72.25	3.6700	79.00	4.8000
72.50	3.7000	79.25	4.8500
72.75	3.7300	79.50	4.9000
73.00	3.7600	79.75	4.9500
73.25	3.7900	80.00	5.0000
73.50	3.8200		
73.75	3.8500		
74.00	3.8800		
74.25	3.9100		
74.50	3.9400		

In calculating disability for a bilateral hearing loss, the poorer ear is rated according to the above scale. The better ear is rated according to the same scale, but multiplied by 5. The sum of the two gives the total rating.

UPPER EXTREMITY

Effective January 1, 2005

IMPAIRED FUNCTION OF UPPER EXTREMITY

Impairment ratings for upper extremity injuries may be evaluated by anatomic, functional or diagnostic means where provided in the guidelines. Generally, the evaluation method which best reflects the level of impairment is used in the assessment. This requires clinical judgement derived from history, physical exam findings and the experience of the Board's medical advisor.

In assessing functional impairments of non-amputation injuries, range of movement, vascular status and neuromuscular components are to be considered.

A) ANATOMIC:

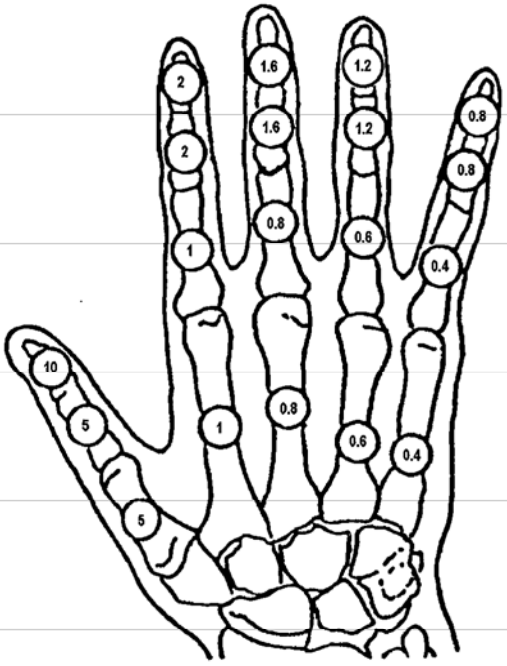
AMPUTATIONS

	Whole Person Impairment %
Both hands at or above the wrist	100%
Proximal third of humerus or disarticulation at shoulder	70%
Middle third of humerus	65%
Distal third of humerus to biceps insertion	60%
Biceps insertion to wrist (depending on usefulness of stump)	50 – 60%
Total amputation of hand	50%
Thumb, including first metacarpal	20%
Thumb, at MP joint	15%
Thumb, at IP joint	10%
Thumb, at one-half distal phalanx	5%
Thumb, at one-quarter of distal phalanx	2.5%

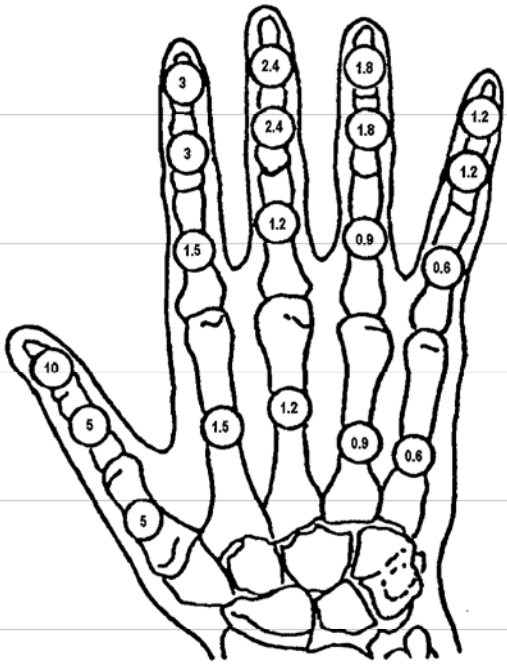
THUMB AND FINGER AMPUTATIONS

Finger amputations are to be rated according to the detailed finger chart. Thumb amputations and single finger amputations are rated using the thumb and single finger chart. In multiple finger amputations the chart corresponding to the number of fingers involved is utilized.

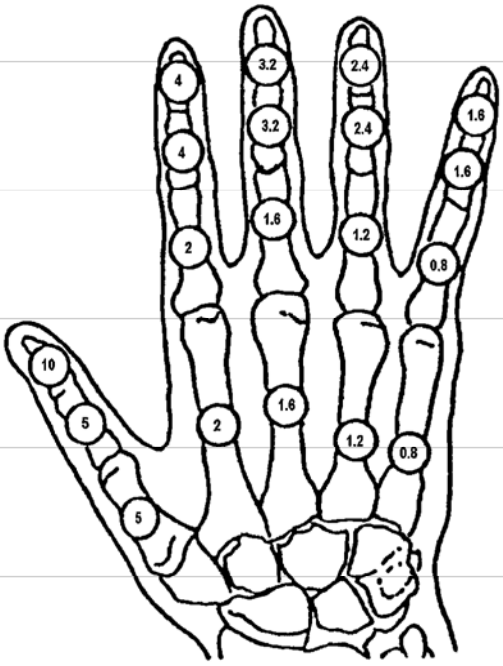
In claims involving a single digit impairment assessment, the medical advisor may utilize information obtained from the "Hand Injury Report Form" (copy at end of this section) completed by an attending physician. There is no enhancement factor between thumb and finger impairments.



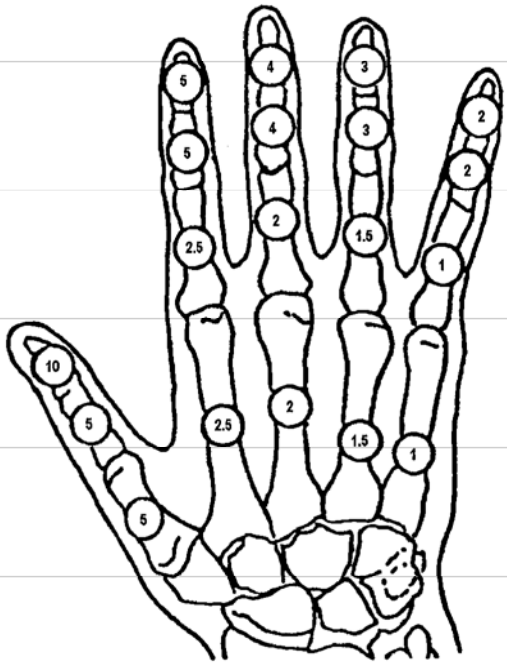
Thumb and Single Finger



Two Fingers



Three Fingers



Four Fingers

B) FUNCTIONAL:

LOSS OF MOVEMENT
ANKYLOSIS

The impairment for complete loss of movement (ankylosis) of an upper extremity joint in a position of function is rated from the schedule. In rare circumstances of ankylosis in a position of less than ideal function, higher impairment ratings than provided in the schedule may be required.

Finger impairments for ankylosis in a position of optimum function will be rated at on half (½) the scheduled rating for an amputation at that involved joint.

	Whole Person Impairment %
Shoulder (complete ankylosis)	35%
i) loss of flexion/extension only	18%
ii) loss of abduction/adduction only	11%
iii) loss of internal/external rotation only	6%
Elbow (complete ankylosis)	20%
i) loss of flexion/extension only	12%
ii) loss of pronation and supination only	8%
Wrist (complete ankylosis)	12.5%
i) loss of flexion/extension only	8.5%
ii) loss of radial and ulnar deviation only	4%
Thumb	
i) MP and IP joints	7.5%
ii) IP joint only	5%
iii) MP joint only	1%
iv) CMC joint	2.5%

PARTIAL LOSS OF MOVEMENT

Impairment for partial loss of joint movement is calculated by applying the ratio of movement lost and normal (total) movement to the schedule ratings for ankylosis of the involved joint.

$$\text{RATIO} = \frac{\text{DEGREES OF NORMAL RANGE MOVEMENT} - \text{DEGREES OF OBSERVED RANGE MOVEMENT}}{\text{DEGREES OF NORMAL RANGE MOVEMENT}}$$

For example:

- measured normal elbow flexion 140°; extension 0°; supination 80°; pronation 80°
- measured injured elbow flexion 120°; extension 0°; supination 70°; pronation 80°

$$\text{RATIO} = \frac{(140° + 0° + 80° + 80°) - (120° + 0° + 70° + 80°)}{140° + 0° + 80° + 80°} = \frac{300° - 270°}{300°} = \frac{30°}{300°} = 0.1$$

PERMANENT IMPAIRMENT RATING = RATIO x ANKYLOSIS RATING OF ELBOW = 0.1 x 20% = 2%

When there is a completely normal extremity for comparison, lost movement can be determined by comparing the range movement of the affected joint with the range of movement of the contralateral normal joint. In the absence of a normal comparative joint the following will be considered as normal ranges of movement for upper extremity joints.

Shoulder:	flexion	160°
	extension	50°
	abduction	160°
	adduction	40°
	internal rotation	70°
	external rotation	90°
Elbow:	flexion	140°
	extension	0°
	supination	80°
	pronation	80°
Wrist:	flexion	60°
	extension	60°
	radial deviation	20°
	ulnar deviation	30°
Thumb:		
MP Joint	flexion	60°
	extension	0°
IP Joint	flexion	80°
	extension	0°
Finger:		
MCP Joint	flexion	90°
	extension	0°
PIP Joint	flexion	100°
	extension	0°
DIP Joint	flexion	70°
	extension	0°

In calculating finger impairment ratings due to partial loss of movement at a joint, the lost range of movement in degrees is divided by the normal range of movement in degrees and multiplied by one half (½) the scheduled rating for amputation at that joint.

$$\text{PERMANENT IMPAIRMENT RATING} = \frac{\text{LOST FINGER JOINT MOVEMENT}}{\text{NORMAL RANGE OF FINGER JOINT MOVEMENT}} \times \text{AMPUTATION RATING FOR FINGER JOINT} \times \frac{1}{2}$$

In cases of amputation distal to a partially ankylosed or totally ankylosed finger joint, the distal amputation schedule rating is added to the calculated impairment rating for loss of range of movement. If more than one finger has impairment the appropriate multiple finger chart is used as is done with multiple finger amputations.

LOSS OF DIGITAL SENSATION

In evaluating sensory loss of a finger the method outlined in the AMA Guide 4th Edition, section 3.1C is utilized (excluding Figure 5 page 22). The percent sensory loss (total – 100%, or partial – 50%) for transverse and longitudinal digital sensory loss is then applied to the appropriate finger amputation schedule chart.

C) DIAGNOSTIC:

JOINT INSTABILITY/SUBLUXATIONS

		Whole Person Impairment %
Shoulder:	Multi directional (severe/failed surgery)	5 -10%
	Unidirectional or Multi directional (mild/non-surgical or post-surgical)	0 - 5%
Elbow Joint:	Mild or less than 20° of deviation/instability	10% of ankylosis rating
	Moderate or 20° to 30° of deviation/instability	20% of ankylosis rating
	Severe or more than 30° of deviation/instability	30% of ankylosis rating
Wrist Joint:	Mild or less than 20° of deviation/instability	10% of ankylosis rating
	Moderate or 20° to 30° of deviation/instability	20% of ankylosis rating
	Severe or more than 30° of deviation/instability	30% of ankylosis rating
Digit Joint:	Mild or less than 20° of deviation/instability	10% of ankylosis rating
	Moderate or 20° to 30° of deviation/instability	20% of ankylosis rating
	Severe or more than 30° of deviation/instability	30% of ankylosis rating

PERIPHERAL NEUROPATHY

The following schedule provides whole person permanent impairment ratings for complete (sensory and motor) denervation of specified nerves.

Median Nerve

At elbow (sensory function $^{1}/_{2}$; motor function $^{1}/_{2}$)..... 40%
At wrist (sensory function $^{4}/_{5}$; motor function $^{1}/_{5}$)..... 20%

Ulnar Nerve

At elbow (sensory function $^{1}/_{7}$; motor function $^{6}/_{7}$)..... 20%
At wrist (sensory function $^{1}/_{6}$; motor function $^{5}/_{6}$)..... 16%

Radial Nerve

Above elbow (sensory function $^{1}/_{8}$; motor function $^{7}/_{8}$)..... 25%
Below elbow (sensory function $^{1}/_{7}$; motor function $^{6}/_{7}$)..... 20%

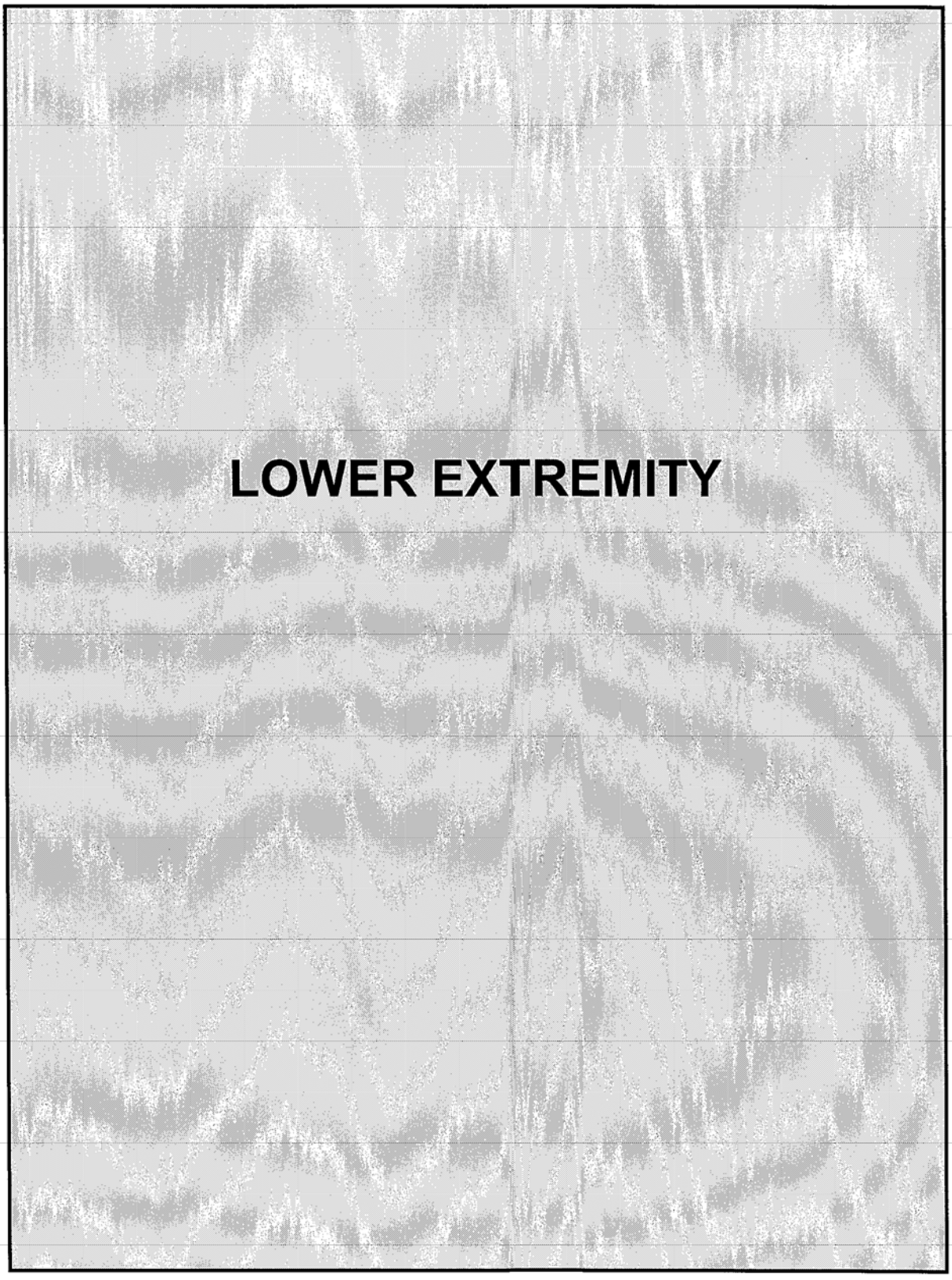
Rating for partial loss of nerve function (sensory and/or motor components) is accomplished by determining the partial nerve function loss using the AMA Guides 4th Edition, Table 11(a) page 48 for sensory deficit and Table 12(a) page 49 for motor deficit. The percent deficit is then applied to the appropriate impairment rating for complete loss (or sensory or motor component) of the peripheral nerve function supplied in the schedule above. Electrodiagnostic test results will be considered in the evaluation of peripheral neuropathies.

OTHER DIAGNOSTIC

Rupture long head of biceps tendon 1%

Mallet finger – an avulsion injury of the extensor tendon of a finger with resultant fixed flexion deformity of the DIP joint is assessed at 0.5%

HAND INJURY REPORT FORM



LOWER EXTREMITY

Effective January 1, 2005

IMPAIRMENT OF LOWER EXTREMITY

Permanent impairments may be evaluated by one of the following methods:
1) anatomic – loss of tissue (excision, amputation) also including muscular wasting or atrophy.
2) functional –range of movement or neuromuscular assessment.
3) diagnostic category.

In general only one method of permanent impairment evaluation should be used. Judgement is an important part of permanent impairment evaluation and the physician must determine which method best reflects the estimate of impairment. (Muscular power, sensory perception and vascular status should be considered when evaluating impairment and may require judgement with respect to contribution to impairment where one of the evaluation methods may not adequately reflect appropriate impairment ratings.)

Functional methods of lower limb permanent impairment ratings would rarely exceed 50% of the rating of amputation at the corresponding levels of involvement.

A) ANATOMIC:

AMPUTATIONS

The scheduled ratings assigned to major amputations of the lower extremity assume that the amputation stump is suitable for weight-bearing prosthesis. Generally, the stump must be well-padded and the scar properly placed. There should not be undue tenderness over areas that are subject to pressure. When stump defects exist which cannot be remedied, a rating greater than that shown in the schedule might be necessary.

AMPUTATION RATINGS

	Whole Person Impairment %
Both feet at or above the ankle	100%
Hip disarticulation or short stump requiring ischial bearing prosthesis	60%
Mid thigh	50%
Distal thigh	45%
End bearing or short below-knee stump not suitable for conventional B.K. prosthesis	40%
Leg, suitable for B.K. prosthesis	35%
Leg, at ankle, end bearing	25%
Through foot … mid-foot including cuneiform	20%
Through foot … including metatarsals	15%
Great toe, both phalanges	5%
Great toe, distal phalanx	2.5%
Other toes, total amputation, each	0.5%

All toes, total amputation 7.5%

MUSCULAR ATROPHY

Impairments from leg muscle atrophy.

Thigh – Circumference measurement made 10 cm above the superior patellar border with the knee fully extended and the client supine, comparing the injured and unaffected limb.

Circumference Difference cm	Whole Person Impairment
0 – 1.0	0%
1.1 – 2.0	1%
2.1 – 3.0	2.5%
3.1 – 4.0	4%
4.1 or greater	6%

Calf – The maximum circumference of the injured leg is compared to the maximum circumference of the unaffected leg and the difference is rated as per the above table.

LEG LENGTH DISCREPANCY

Affected and unaffected leg length comparison measurements are made using 1) radiographic means or 2) clinical means measuring from ASIS (anterior superior iliac spine) to inferior medial malleolus.

Whole Person Impairment %

2.1 – 3.0 cm 1.5%

3.1 – 4.0 cm 3%

4.1 – 5.0 cm 4.5%

5.1 – 6.0 cm 6%

6.1 cm or greater 10%

B) FUNCTIONAL:

LOSS OF MOBILITY OF LOWER EXTREMITY

In cases of partial loss of movement the rating will be proportional to the amount of movement lost applied to the ankylosis rating. For example:

- measured normal knee flexion 130°; extension 0°
- measured injured knee flexion 90°; extension 0°

$$\text{RATIO} = \frac{\text{LOST MOVEMENT}}{\text{NORMAL MOVEMENT}} = \frac{(130° - 90°)}{130°} = \frac{40°}{130°} = 0.31$$

PERMANENT IMPAIRMENT RATING = RATIO x ANKYLOSIS RATING KNEE
= 0.31 x 25%
= 7.75%
= 8% (with rounding off to the nesrest 0.5% past the decimal point)

Inasmuch as there are great variations from person to person in ranges of movement, when there is a completely normal extremity to compare with, loss of movement can be determined by comparing the movement in the joint being examined with the movement in the normal joint on the opposite extremity.

When there is not a normal extremity to compare with, the following will be considered to be normal ranges of movement for lower extremity joints:

Hip:	flexion	120°
	extension	30°
	abduction	45°
	adduction	25°
	internal rotation	35°
	external rotation	45°
Knee:	flexion	135°
	extension	0°
Ankle:	dorsiflexion	20°
	plantar flexion	50°
	subtalar eversion	5°
	subtalar inversion	5°
	forefoot abduction	10°
	forefoot adduction	20°

Hip, ankylosed in acceptable position 30%

Knee, ankylosed in acceptable position 25%

Ankle, complete ankylosis in acceptable position (pantalar fusion) 15%

Triple arthrodesis (talonavicular, talocalcaneal and calcaneal cuboid fusion) 12.5%

Subtalar arthrodesis 5%

Great toe, ankylosis both joints 2.5%

Great toe, ankylosis distal joint 0.5%

C) DIAGNOSTIC:

CATEGORIES

Hip Arthroplasty
(see Tables 64 and 65 pages 85 and 87 American Medical Association "Guides to the Evaluation of Permanent Impairment" 4th Edition)

Knee Arthroplasty
(see Tables 64 and 66 pages 85 and 88 American Medical Association "Guides to the Evaluation of Permanent Impairment" 4th Edition)

Meniscal Tears

- partial meniscectomy (medial or lateral) 1%

- complete meniscectomy (medial or lateral) 3%

(In cases of degenerative tears requiring meniscectomy after aggravational injury up to ½ of the scheduled impairment rating is assigned.)

Cruciate or Collateral Ligament Tears

- mild (1+, incomplete, up to 1.0 cm of laxity) 2%

- moderate (2+, incomplete, up to 2.0 cm of laxity) 4%

- severe (3+, complete disruption) 6%

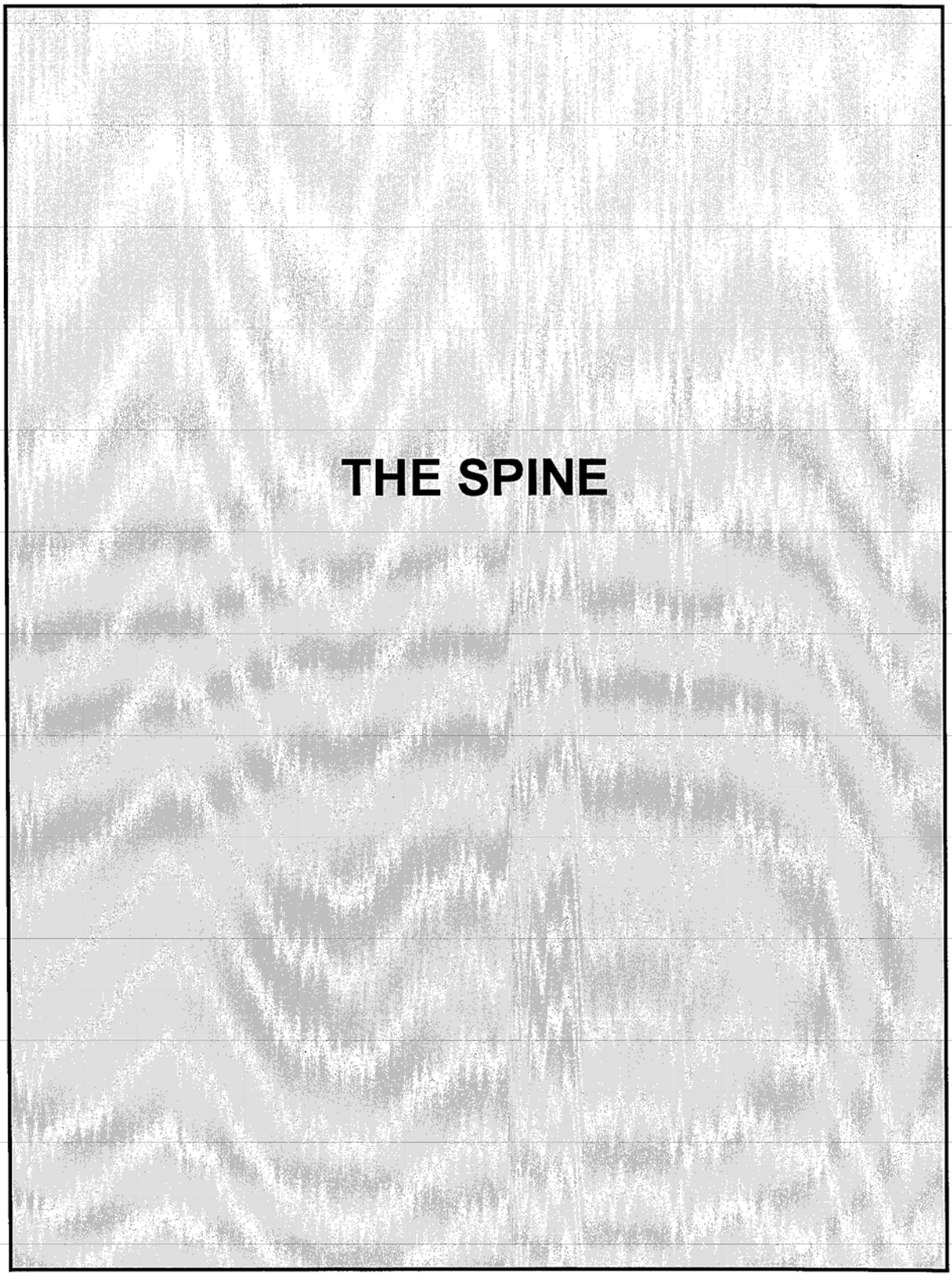
Patellectomy – partial 3%

Patellectomy – radical 6%

Pelvic, Femoral and Tibial Shaft Fractures with displacement and/or malrotation
(see Table 64, page 85 American Medical Association "Guides to the Evaluation of Permanent Impairment" 4th Edition)

Calcaneal Fractures
(see Table 60, page 81 American Medical Association "Guides to the Evaluation of Permanent Impairment" 4th Edition)

Peroneal Nerve Palsy – complete 12%



Effective January 1, 2005

Spine and Pelvis Impairments

Medical Advisors use the following sections to rate injured workers with residual spinal & pelvis problems. The worker is placed in the appropriate category that best aligns with his/her condition. The physician should never combine two impairments for the same spinal area, except for completely different problems, which would be unusual. For example, if one has an L1 compression fracture and a disc protrusion at L4-L5, these would be regarded separately and combined. There will be unusual cases that do not fit within the Guide's categories and they should be rated in relationship to these categories for guidelines using medical judgment.

Before a permanent impairment rating is considered, the patient must be medically stable. This is standard for all permanent impairment ratings. An individual must be at a point of maximum medical improvement (MMI), the point where they are not expected to improve or worsen further, with or with out treatment.

Schedule

The following are general concepts used in this section:

- A worker having had a clinically significant disc protrusion or extrusion (with or without excision), followed by a quiescent stabilized period and who, later incurs a recurrent disc at the same side and same level treated surgically, would be rated according to Schedule II and the impairment rating for the initial disc injury/surgery would be apportioned from the current total impairment. There is no additional impairment for a recurrent disc treated conservatively, unless there is evidence of additional residual radiculopathy.

- A worker having had a pre-existing disc protrusion or extrusion (with or without excision) followed by a stabilization period and who later incurs a protrusion or extrusion of a disc at a different level, has the additional rating for the second occurrance according to this schedule. The prior event should be included in the rating and apportioned off so the net result would be the same.

- Add-ons for additional levels in Schedule II (II-B, II-D and II-F) can be applied only one time for the same level.

- If prior impairments are not related to the injury being assessed, they are to be deducted (apportioned).

- Repeat explorations at the same spinal level, or repeat fusions at the same level, only increase the impairment rating by 2% per surgery. (See II).

- A worker with prior degenerative changes only and who later sustains a specific pathological condition, such as a disc protrusion or extrusion, will have no apportionment of the degeneration, if the previous condition was asymptomatic and not ratable.

- Impairment of two completely different spinal areas (e.g. cervical and lumbar) should be calculated separately and combined.

- Each spinal area involved, the cervical, thoracic, and lumbar is considered a single organ system. All numbers within Schedules I or II are to be added. When other organ systems are involved, such as neurological loss, their values are combined with the spine.

- The methodology to be used in the calculation of neurological loss is contained in the musculoskeletal system chapter of the 4th edition of the AMA Guides, pages 47 and 48.

SCHEDULE I - DEVELOPMENTAL and DEGENERATIVE SPINE CONDITIONS (Whole Person Impairment)

Schedule I requires a minimum of six months duration of symptoms from the time of the injury to the impairment rating and no surgical intervention. The rater is to use only one condition from category IA through IE, one time.

Placement of a patient within one of these categories is dependent primarily on the history and physical findings. The examiner should also consider any "pain behaviors" that may be present.*	CERVICAL-THORACIC	THORACIC-LUMBAR
I-A. Medically documented minor/mild injury, subjective symptoms persisting for a minimum of six months and clinical findings that are consistent with spinal pathology. No evidence of acute changes on imaging and none to minimal activity modifications required.	0%	
I-B. Medically documented moderate injury, subjective symptoms persisting for a minimum of six months and clinical findings that are consistent with spinal pathology. Has evidence of minimal degenerative changes on imaging and may have permanent activity restrictions.	3%	
I-C. Medically documented significant injury, subjective symptoms persisting for a minimum of six months and clinical findings that are consistent with spinal pathology. Has imaging evidence of moderate to severe degenerative changes. Likely to have permanent activity restrictions.	5%	
I-D. Medically documented significant injury subjective symptoms persisting for a minimum of six months, and clinical findings that are consistent with spinal pathology. This would include imaging evidence of disc pathology (that displaced nervous tissue and was treated without surgery), spondylolisthesis, and segmental instability. Likely to have permanent activity restrictions.	7%	
I-E. Medically documented significant injury, subjective symptoms persisting for a minimum of six months with clinical findings that are consistent with spinal pathology. Spondylolisthesis, Grade III or IV.	8%	
ADD-ONS for above conditions in Schedule I. (Whole Person)		
I-F. Medically documented significant injury, subjective symptoms persisting for a minimum of six months and clinical findings which are consistent with continued pain, decreased motion and Imaging evidence of disc pathology that displaces nervous tissue and has occurred from a subsequent injury, at another level other than the first and was treated without surgery.	3% per level	
I-G. Persisting Radicular Neurologic Deficit. If the neurological deficits exceed 3% whole person permanent impairment, then calculate the deficits as described from table 83 page 130 and tables 11 and 12 pages 47 and 48 in the AMA Guides (4th edition) and combine the new radiculopathy rating, in place of the 3% listed here. (See Radiculopathy Schedule III)	3% for each involved nerve root (Combined)	

Notes:
Injury events should be classified based on the following categories: Minor/Mild, Moderate, Severe/Significant

Minor/Mild: ordinary activity, similar to common activities of daily personal living and not expected to result in injury, e.g., picking up and handling light objects (less than 20 lbs), climbing stairs, using a computer for e-mail, or raking a lawn.

Moderate: straining or taxing activity that would be uncommon for normal work activities and would likely result in a disabling injury, e.g., lifting 20-50 lbs, sharp motions and twisting (falling or jumping 1 or 2 meters); or maintaining unusual or stressful positions (stoop work).

Severe/Significant: unusually taxing activity even for persons in the worker's occupation and expected to result in disabling injury, e.g., lifting heavy weights (over 50 lbs), being struck; uncontrolled falling over 3 meters; or repeated motions under very heavy loads.

*Section 15.6, AMA Guides 4th edition, page 308

SCHEDULE II. SURGICALLY TREATED SPINE CONDITIONS (Whole Person Permanent Impairment)

Apportionment for conditions listed below is direct and Table VI's methodology does not apply.

	CERVICAL - THORACIC- LUMBAR
II-A. First spinal surgery at one level in a given spinal region, including significant disc abnormality, severe degenerative or posttraumatic changes, spondylolisthesis, segmental instability and spinal stenosis (includes foraminal stenosis). (Assigned one time.)	10% (one time)
ADD-ONS for Schedule II-A. (Whole Person)	
II-B. Medically documented injury with continued pain, decreased motion, and imaging evidence of objectifiable discopathy that displaces nervous tissue and has occurred from the same or subsequent injury at another level other than the first and was treated either conservatively or surgically. This would also include surgery for severe degenerative or posttraumatic changes, spondylolisthesis, segmental instability, and spinal stenosis. (This is applied only one time per level and is not to be applied to levels explored, but not found to require partial discectomy or foraminotomy.)	Add 3% (one time per level)
II-C. Second or subsequent spinal operation in a given spinal region, including herniated discs, severe degenerative or post traumatic changes, spondylolisthesis, segmental instability, and spinal stenosis.	Add 2% per operation
II-D. Spinal Fusions (For the first level fused.)	Add 3% for first level (use one time only)
II-E. Fusions: Additional level(s) (i.e. a fusion that spans 3 segments = 2 levels, or L4-S1 fusion)	Add 2% for each additional level. (This is to be used only one time per level)
II-F. Persisting Radicular Neurologic Deficit (If, the neurological deficits exceed 3% whole person permanent impairment, then calculate the deficits as described from table 83 page 130 and tables 11 & 12 pages 47 and 48 in the AMA Guides (4th edition) and combine the new radiculopathy rating, in place of the 3% listed here. (See Radiculopathy Schedule III.)	3% for each involved nerve root (combined)
II-G. Minor procedures or operations, such as uncomplicated removal of internal fixation devices	0%

SCHEDULE III. RADICULOPATHY

Must have a score greater than or equal to 3 to qualify for a Radicular Neurologic Deficit Rating

Objective Testing	Documented Objective Findings at the Time of Rating	Score
Imaging	Significant disc protrusions that displace nerve tissue (which correlates with clinical picture) and/or bony/mechanical nerve root encroachment on the imaging which correlates anatomically with the findings on the neurological examination	2
Muscle Involvement	Objective muscle power loss and/or thigh atrophy >2cm compared to uninvolved limb or calf, arm, or forearm atrophy >1 cm compared to uninvolved limb	2
EMG Changes	Findings of fibrillation potentials in the distribution of a nerve root	2
Sensory Involvement	Objective alteration of sensation (sharp/dull, hot /cold, light touch,) consistent with anatomic dermatomal distribution	1
Reflex Changes	Loss of/or diminished deep tendon reflexes, (biceps-triceps-brachioradialis-patellar-or ankle jerk) as compared to non-affected side.	1
Tension – Compression Signs	Spurling's Sign* Present or Straight Leg Raise** Present	1

Notes:
*Spurling's Sign is defined as pain in the distribution of a cervical nerve root that is produced by simultaneous neck extension, ipsilateral rotation, and axial compression.

**Straight Leg Raise is defined as pain in the distribution of a lumbar nerve root that is produced when the ipsilateral hip is flexed from 10 degrees to 70 degrees, while the knee remains in full extension.

SCHEDULE IV. VERTEBRAL FRACTURES
(Whole Person Permanent Impairment

The impairments listed below are the same with or without surgery. If fracture(s) is healed without any symptoms and without any functional limitations (without functional impairment) there is no rating given. Rater is to use only the highest ratings from either sections IV-A or IV-B or IV-C. Non-adjacent fractures at distinctly different areas may be rated separately and combined. Accompanying impairments to other organ systems are calculated separately and combined with the fracture impairment.

IV-A: COMPRESSION FRACTURE(S) THAT REMAIN(S) AT MEDICAL STABILITY
The impairments listed below are the same with or without surgery.

(Pre-existing compression fractures should be rated only when there has been enhancement by a new injury, shown by objective radiological findings of worsening of the pre-existing fracture. These values should be addressed as a pre-existing factor.) If surgery is performed, the pre-operative compression percentage amount is used for the rating.

IV-A: % VERTEBRAL COMPRESSION FRACTURE	CERVICAL	THORACIC	LUMBAR
IV-A-1: 10% or less	3%	2%	3%
IV-A-2: 11% to 25%	6%	4%	4%
IV-A-3: 26% to 50%	14%	6%	10%
IV-A-4: Greater than 50% (Burst Fracture)	19%	9%	(Include T12 with Lumbar) 15%
IV-A-5: Fusion- If it is required to extend the fusion over more than three vertebral segments, add			5% one time
IV-A-6: For multiple fractures listed in IV-A, with more than one level involved			Add 2% for each additional fracture
IV-A-7. Persisting Radicular Neurologic Deficit (If, the neurological deficits exceed 3% whole person permanent impairment, then calculate the deficits as described from table 83 page 130 and tables 11 and 12 pages 47 and 48 in the AMA Guides (4th edition) and combine the new radiculopathy rating, in place of the 3% listed here. (See Radiculopathy Schedule III.)			Combine 3% one time

IV-B: X-RAY EVIDENCE OF VERTEBRAL FRACTURES WITH AXIAL DISLOCATIONS INVOLVING POSTERIOR ELEMENTS (REGARDLESS OF DEGREE OF VERTEBRAL COMPRESSION)
(including those fractures which involve the pedicle, lamina, articular process, transverse or spinous process.)

IV-B-1 No Surgery is performed and reduction is to normal or "anatomic" position	6%
IV-B-2: Surgery is performed and reduction is to normal or "anatomic" position (Includes fusion)	14%
IV-B-3: No surgery performed and reduction is not to normal or "anatomic" position	17%
IV-B-4: Surgery is performed with significant persisting bony deformity (includes fusion)	20%
IV-B-5: Fusions over more than three vertebral segments.	Add 5% one time
IV-B-6: For multiple fractures listed in IV-B, with more than two vertebrae involved	Add 3% one time
IV-B-7: Persisting Radicular Neurologic Deficit (If, the neurological deficits exceed 3% whole person permanent impairment, then calculate the deficits as described from table 83 page 130 and tables 11 and 12 pages 47 and 48 in the AMA Guides 4th edition and combine the new radiculopathy rating, in place of the prior 3% listed here. (See Radiculopathy Schedule III.)	Combine 3% one time

IV-C: OTHER FRACTURES NOT LISTED ABOVE

The below listed impairments are the same with or without surgery.

IV-C-1. Fracture of one or more transverse processes or spinous processes healed without significant displacement or symptoms.	0%
IV-C- 2. Fracture of one or more transverse processes or spinous processes fractures with or without displacement and persistent symptoms remaining >6 months.	5%
IV-C-3. Fracture of posterior elements, healed without displacement or symptoms.	0%
IV-C-4. Fracture of Posterior element, healed with or without displacement, but requiring spinal surgical intervention.	10%
IV-C-5. Fracture of posterior elements healed with or without displacement requiring surgical fusion.	Add 3%
IV-C-6. Fusions over more than three segments.	Add 5% one time
IV-C-7. Persisting Radicular Neurologic Deficit (If, the neurological deficits exceed 3% whole person permanent impairment, then calculate the deficits as described from table 83 page 130 and tables 11 and 12 pages 47 and 48 in the AMA Guides (4th edition) and combine the new radiculopathy rating, in place of the 3% listed here. (See Radiculopathy Schedule III.)	Combine 3% one time

SCHEDULE V. THE PELVIS
Refer to section 3.4 "The Pelvis" AMA Guides, 4th edition, page 131.
(Whole Person Permanent Impairment)

Healed Fracture without displacement or residual symptoms...0%	Healed fracture(s) with displacement, deformity, and residuals symptoms(s) involving:
Healed fracture with displacement and without residual symptoms(s) involving:	a. Single ramus.....2%
a. Single ramus..... 0%	b. Rami, bilateral 5%
b. Rami, bilateral..... 0%	c. Ilium 2%
c. Ilium.....0%	d. Ischium, displaced 2 cm or more 10%
d. Ischium.....0%	e. Symphysis pubis, displaced or separated 15%
e. Symphysis pubis, without separation.....0%	f. Sacrum, into sacroiliac joint.....10%
f. Sacrum.....5%	g. Coccyx, non-union or excision..... 5%
g. Coccyx.....0%	h. Coccyx, displacement.....3%
	i. Fracture into acetabulum.....Evaluate according to hip

Notes: Neurologic impairments would be calculated and combined. Loss of bladder control, bowel control, or sexual functioning should be rated and combined with the pelvic fracture using the NWT and Nunavut Permanent Impairment Rating Guide – Reproductive and Urinary System Section.

SCHEDULE VI. SEVERITY INDEXING FOR APPORTIONMENT OF SCHEDULE I

Schedule I requires a minimum of six months duration of symptoms, from the time of the injury to the impairment rating.

	Score		
	0	**1pt.**	**2pts.**
VI-A. Time lost from work in the last 12 months because of symptoms in the same spinal region	0	1-3 days	>3 days
VI- B. Number of prior symptom episodes in the same spinal region	0	1-3	>3
VI-C. Time elapsed since last episode/injury	>3 years	1-3 Years	<1year
VI- D. Prior permanent work restrictions because of problems in the same spinal region	None	Temporary	Permanent
VI-E. Prior objective testing to the same spinal region: EMG-NCS, X-ray, MRI-CT, Bone Scan	0	If any performed prior to 2 years	If any performed within the last 2 years
VI-F. Prior ongoing medical, chiropractic visits or physical therapy visits received for symptoms or an injury to the same spinal region	0-2 times in last 3 yrs	3-6 times in last 3 yrs	>6 in last 3 yrs
VI-G. Spondylolysis with Spondylolisthesis		<25% slip	>25% Slip
VI-H. Radiculopathy (As objectified by Radiculopathy Schedule)	No History	Prior History > 2 years	Prior History < 2 years

Formula for apportionment using points generated in Schedule VI:

1-2 pts. = no apportionment
3pts. = 10% may be apportioned off as a prior ratable condition
4pts. = 20% may be apportioned off as a prior ratable condition
5pts. = 30% may be apportioned off as a prior ratable condition
6pts. = 40% may be apportioned off as a prior ratable condition
7pts. = 50% may be apportioned off as a prior ratable condition
8pts. = 70% may be apportioned off as a prior ratable condition
9pts. = 90% may be apportioned off as a prior ratable condition
>10 pts. = 100% may be apportioned off as a prior ratable condition

Summary of Basic Principles of Apportionment

- Apportionment applies only to permanent impairment.
- Impairment that directly results from the current injury being evaluated is not apportioned.
- Ratable impairment that existed prior to the injury is subject to apportionment.
- In all cases, the apportionment may not be speculative.

Actual factors of prior impairments are to be discussed with sufficient reason in support of the apportionment.

INTERNAL ORGANS

Effective January 1, 2005

INTERNAL ORGANS

The impairment of function of internal organs necessitates judgement ratings.

	Whole Person Impairment %
Loss of spleen	10%

PERMANENT SURGICALLY CREATED STOMATA

	Whole Person Impairment %
Esophagotomy	10%
Gastrostomy	10%
Jejunostomy	15%
Ileostomy	15%
Colostomy	15%

REPRODUCTIVE AND URINARY SYSTEM

Effective January 1, 2005

REPRODUCTIVE AND URINARY SYSTEM

Refer to Chapter 11 of the American Medical Association "Guides to the Evaluation of Permanent Impairment" (4th Edition).

INTEGUMENTARY SYSTEM

Effective January 1, 2005

INTEGUMENTARY SYSTEM

DERMATITIS

Permanent medical impairment awards are made in cases of occupational dermatitis when the diagnosis is firmly established and the skin disease has stabilized. It is also desirable that the worker has been returned to suitable employment, avoiding the skin hazard.

Prior to consideration of a permanent impairment assessment, a dermatology consultation is arranged by the family doctor or Board staff. Relevant medical investigation is authorized, e.g. patch tests, if applicable. Hospitalization may be arranged for more intensive care of the skin, for further testing, or for medical investigation to rule out systemic disease which may cloud the issue.

Avoidance of the irritant or allergic material clears the rash in most cases, and this may be achieved by protective clothing, improved ventilation, change to an enclosed process, change of the chemical or more stringent hygiene on the part of the worker (more frequent hand-washing and avoidance of such solvents as varsol for clean-up at the end of a shift). The worker and his employer control these measures.

Permanent impairment ratings for skin disorders are based on medical judgement in accordance with th following guidelines.

CLASS 1 **0 – 5%**	Clinical (Medical) No rash present. No treatment necessary. Little or no limitation exists in the performance of the activities of daily living, although unavoidable contact with specific irritant or allergic substances might temporarily increase the extent of limitation.
CLASS 2 **5 – 10%**	Clinical (Medical) Signs and symptoms exist - minimal rash. Intermittent treatment necessary (creams and ointment - minor). Limitation of some daily activities. Occasional exacerbation due to unavoidable contacts.
CLASS 3 **20 – 50%**	Clinical (Medical) Signs and symptoms exist - moderate rash. Continuous treatment is required - may include intermittent courses of parenteral steroids, with complication. Limitation of many daily activities. Frequent exacerbation due to unavoidable contact.
CLASS 4 **50 – 100%**	Clinical (Medical) Signs and symptoms are present - widespread rash. Continuous treatment is required, including frequent parenteral steroids (may involve complications). Treatment may require confinement at home or other domicile. Severe limitation of activities of daily living.

DISFIGUREMENT

Disfigurement is defined for Claims purposes as a conspicuous alteration of the features of the head, face, or neck and/or substantial scarring in these areas. This includes loss of hair which cannot be replaced by artificial means.

There are four degrees of disfigurement.

CATEGORY 1: (1 – 5%)

Noticeable scarring, alteration of the shape of the facial features or loss of hair which cannot be replaced without difficulty.

CATEGORY 2: (6 – 10%)

Substantial scarring, burns or alteration of the shape of facial features.

CATEGORY 3: (11 – 15%)

Major disfigurement caused by scarring, burns, etc., which affect or partially obliterate the shape of facial features.

CATEGORY 4: (16 – 25%)

Gross disfigurement with obliteration of features and normal skin appearance due to burns, multiple scarring or other causes.

Ratings for disfigurement are basically judgement in nature and should not be carried out until any reconstructive surgery is completed.

CENTRAL NERVOUS SYSTEM

Effective January 1, 2005

CENTRAL NERVOUS SYSTEM IMPAIRMENT

Permanent impairment of the central nervous system function (including consciousness, motor, sensory, cognitive, mental – psychiatric, psychological, affective and behavioural) may result from direct traumatic injury, neurotoxic exposures, infections, hypoxia – ischemia and, in rare circumstances, from significant and unusual psychotrauma.

Generally the permanent impairment evaluations are done no sooner than two (2) years post injury to allow sufficient time for maximal recovery. Consultation and examination, including diagnostic tests, are conducted by the appropriate specialists in the fields of neurology, psychiatry, neuropsychiatry, psychology and neuropsychology, as indicated, prior to assignment of an impairment rating.

HEAD – BRAIN INJURY

Refer to American Medical Association "Guides to the Evaluation of Permanent Impairment" (4th Edition) Chapter 4, Sections 4.1, 4.1a, 4.1b, 4.1c, 4.1d and 4.1e, pages 139 – 144.

	Whole Person Impairment %
Hemiplegia	100%

Mental impairment refers to abnormal conditions of the mind which impede normal social function. It does not include sensory, motor, language and consciousness functions which are assessed as above (Chapter 4, AMA Guides 4th Edition). Included are disorders of affect, cognition, attention, personality, thought and behaviour.

Mental disorders considered in this section must be included in and must meet all the criteria contained in the Diagnostic and Statistical Manual of Mental Disorders, 4th Edition (DSM – IV).

Emotional reactions and psychotrauma are generally considered to be temporary, part of a normal adjustment process in response to accident, injury and physical disability.

Mental and behavioural disorder impairments will be assessed using the American Medical Association "Guides to the Evaluation of Permanent Impairment" (4th Edition) Chapter 14, Section 14.3 (pp. 293 – 295) and in Section 14.7 (pp. 300 – 302). The following table will be used to assign whole person permanent impairment ratings to the AMA Guides 4th Edition classifications.

	Whole Person Impairment %
CLASS I – no impairment	0%
CLASS II – mild impairment	5 – 15%
CLASS III – moderate impairment	16 – 40%
CLASS IV – marked impairment	41 – 75%
CLASS V – extreme impairment	76% or greater

Determinations must be made regarding the presence of a mental disorder (psychiatric or psychological) prior to injury and its severity or significance. Accordingly the whole person permanent impairment ratings for pre-existing mental disorders will be adjusted using the following table.

SEVERITY OF PRE-EXISTING		PERMANENT IMPAIRMENT RATING FACTOR
Non-Existent		100%
Mild	one or two brief episodes – requiring medical – psychological attention – responded to treatment with minimal functional disruption	75%
Moderate	ongoing symptoms, requiring periodic attendance from physician or psychologist during which times function is disrupted	50%
Marked	continuous, regular supportive or maintenance therapy, periodic normal function	25%
Extreme	brief periods of normal function only	5%

SPINAL CORD INJURY

	Whole Person Impairment %
Paraplegia – complete, static	100%
Quadriplegia	100%
Cauda equina lesion	40%

CARDIOVASCULAR SYSTEM

Effective January 1, 2005

CARDIOVASCULAR SYSTEM

The majority of cardiac claims which are evaluated for permanent impairment are those in which the worker has suffered a myocardial infarction following some unusual physical stress or the inhalation of fumes. There are also rare cases related to trauma or infection. Cases for consideration are usually those in which the incident of precipitation is considered medically significant. A consultation with a cardiologist is done prior to the permanent impairment rating being assessed.

Once an award has been established, there will be no adjustment to the size of the award unless there is a further incident "arising out of and during the course of employment".

The guidelines used by the WCB to rate cardiovascular impairment are those developed by the American Medical Association and the American Heart Association. Patients are categorized as Class I, Class II, Class III, or Class IV. The percentage values are as follows:

Class I: 0 – 20 %
Class II: 20 – 40 %
Class III: 50 – 80 %
Class IV: 80 – 100 %

These classifications are standard terminology for cardiologists in North America and are used in routine clinical practice.

Persons in Class I include those with known organic heart disease who:

1. have few or no symptoms;
2. can walk, climb stairs and perform the usual activities of daily living;
3. show no serious adverse reactions to prolonged exertion or emotional stress;
4. show no signs of congestive heart failure.

Included in Class II are patients having organic heart disease:

1. without symptoms while at rest;
2. who can walk freely on the level, climb at least one flight of stairs and perform the usual activities of daily living without discomfort;
3. have symptoms under conditions of prolonged exertion, emotional stress, hurrying, hill-climbing and recreational or similar activities;
4. have no signs of congestive heart failure.

Persons in Class III having organic heart disease:

1. with no symptoms while at rest;
2. symptoms walking more than one or two blocks on the level and climbing one flight of stairs, or performing the usual activities of daily living;
3. major symptoms attending emotional stress, hurrying, hill-climbing, or recreational activities;
4. have signs of congestive heart failure that are usually relieved by therapy.

Finally, persons in Class IV have:

1. symptoms even while at rest;
2. increasing discomfort when performing any of the activities of daily living;
3. occasional symptoms of cardiac insufficiency;
4. signs of congestive heart failure that are usually resistant to therapy.

This classification of the American Heart Association puts greater emphasis on the restriction of the activities of daily living than on the pathological lesions themselves. However, the utilization of stress or exercise test is standard procedure to assist in the permanent impairment rating.

It should be stated that in those claims in which a impairment rating is justified, the relevant policy of the NWT Workers' Compensation Board will usually apply.

In such cases, the preponderance of medical evidence must point to the injury as the main cause of residual impairment rather than pre-existing factors.

RESPIRATORY SYSTEM

Effective January 1, 2005

RESPIRATORY SYSTEM

Listed below are the respiratory diseases which are considered for evaluation of permanent medical impairment:

- pneumonoconiosis (for example silicosis, asbestosis)
- occupational asthma
- asthma permanently aggravated by workplace exposures
- respiratory tract malignancies
- acute toxic inhalational exposures

Permanent impairment assessment will include evaluation of exposure history, assessment of symptoms and physical exam, diagnostic imaging (x-ray, CT scan), pulmonary function testing (including spirometry and diffusion capacity) and consultation with a respirologist. The impact of chronic tobacco smoking will be considered as a contributor to permanent impairment of lung function (where indicated) for apportionment purposes.

	FEV_1	FVC	DL_{CO}
CLASS I No Impairment 0%	$\geq$ 80% of predicted FEV_1 / FEV $\geq$ 70%	$\geq$ 80% of predicted	$\geq$ 70% of predicted
CLASS II Mild Impairment 5 – 15%	between 70 – 79% of predicted	between 70 – 79% of predicted	between 60 – 69% of predicted
CLASS III Moderate Impairment 16 – 25%	between 60 – 69% of predicted	between 60 – 69% of predicted	between 50 – 59% of predicted
CLASS IV Severe Impairment 26 – 50%	between 40 – 59% of predicted	between 50 – 59% of predicted	between 40 – 49% of predicted
CLASS V Extreme Impairment > 50%	$\leq$ 40% of predicted	$\leq$ 50% of predicted	$\leq$ 40% of predicted

To be considered as having no impairment, all of the listed criteria must be met. For the other classes, at least one of the criteria must be met.

Reference values of predicted normals for FEV_1 (forced expiratory volume at 1 second), FVC (forced vital capacity) and DL_{CO} (lung diffusion capacity of carbon monoxide) are found in the American Medical Association "Guides to the Evaluation of Permanent Impairment" (4th Edition) – Tables 2 through 7, pages 156 through 161.

OTHER

Effective January 1, 2005

OTHER

WHITEHAND VIBRATION SYNDROME:

The permanent impairment rating method is based on a point award system for various criteria in the medical and work histories and on objective test results. Whitehand Vibration Syndrome is a medical disorder, which results from the cumulative effect of vibration exposure with the pathology identified involving the neurologic, vascular and muscular systems. Unfortunately, there are many medical disorders which can have similar presentations to vibration induced whitehands, including primary Raynaud's Disease, and toxic and metabolic peripheral neuropathies to name a few. The criteria for evaluation help to identify those claimants who have the vibration induced disorder.

OCCUPATIONAL HISTORY

There must be a history of vibration exposure at the workplace. Whitehand Vibration Syndrome is an occupational disease resulting from the cumulative exposure to vibration at the workplace. Presumably, there is a dose (exposure) below which there is no identifiable or measurable effect and certainly no evidence of disease. Points in this category are awarded on the basis of accumulated workplace vibration exposure.

Exposure	Points
less than 5 years	0
5 to less than 10 years	1
10 to less than 15 years	2
15 or more years	3

These categories assume a vibration exposure of at least two hours per day and a work week of at least five days. Exposures of less than this are considered non-significant in an occupational disease model for vibration. A minimum of 3500 hours of continuous employment is a prerequisite for claim acceptance at the WCB of NWT and Nunavut.

MEDICAL HISTORY-SYMPTOMS AND ANATOMICAL SITES

It is presumed that those medical disorders confounding a diagnosis of Whitehand Vibration Syndrome will be addressed in the medical history. In addition, the common symptoms of Whitehands will be reviewed and category points will be assigned as outlined below.

Symptoms	Points
2 or more symptoms	2

The symptoms to be elicited would include skin blanching, cold intolerance, reduced finger dexterity, numbness or tingling (reduced sensation), pain/discomfort and skin changes.

Symptomatic Anatomical Sites	Points
One hand	1
Both hands or hand/foot or feet	2

Sensory Testing

Objective evidence of sensory impairment may be documented by clinical evaluation of sensation to light touch, pin prick, vibration or proprioception testing. Other objective measures of sensory impairment may be derived from electro-diagnostic testing.

Sensory Status	Points
No deficit	0
Deficit evident	1

Motor Assessment

The Muscular System is evaluated by history of symptom of weakness (muscular power loss) and by objective assessment either by clinical means or by pinch/grip dynamometer.

Muscular Status	Points
No symptom	0
Weakness symptom only	1
Objective power loss only	1
Symptom and sign of power loss	2

Peripheral Vascular Status

Vascular status is assessed by using the non-invasive technique of Doppler ultrasound to measure the blood flow through peripheral blood vessels.

Doppler Assessment	Points
Negative test result (normal vessels)	0
Positive test result (abnormal vessels)	2

Vascular status is also assessed by performing Doppler blood flow studies of the peripheral vasculature following extremity immersion in cold water. A positive response of decreased blood flow is a characteristic of Raynaud's phenomena.

Cold Immersion Test Result	Points
Negative	0
Positive	2

Nerve Conduction Studies

Electro-physiological testing is carried out to determine objective evidence of peripheral nerve damage. EMG studies are also considered in the objective testing evidence.

NCS/EMG Result	Points
Negative (normal test results)	0
Positive (abnormal test results)	2

Occupational Status

The worker may have been advised to change occupation or had restrictions placed on work duties performed to avoid further worsening of symptoms or disease. In such cases, additional points are added; however, if the worker left the job of his/her own accord by quitting or retirement, or was terminated due to downsizing or disciplinary action, no additional points are awarded.

Medical Certification for work restriction / job modification / job loss (transfer)..... 2 points.

Medical Treatment Success/Failure

Medical treatment in one form or another is usually attempted to provide symptomatic relief and may include such interventions as splinting, vasodilatory medication, and peripheral nerve release. Response to treatment will be assessed by medical report to include symptoms pre and post treatment and the continued use of the medical treatment provided.

Medical Treatment	Points
Successful medical intervention	0
Unsuccessful medical intervention	1

CALCULATION OF PERMANENT IMPAIRMENT RATING

The maximum points that are awarded through this method evaluation are 19. The threshold for a permanent impairment rating is seven points. Clients who have a total score of less than seven points likely do not have Whitehand Vibration Syndrome. Those clients with a point score of greater than seven and with an objective test result indicating abnormality will be assigned a whole person permanent impairment rating. The permanent impairment rating is calculated by subtracting the threshold of seven points from the total point score derived from adding the points assigned in each category of the evaluation method above.

For example: a client who has a total point score of 13 points and has at least one objective test result abnormality would be assigned a whole person permanent impairment rating of 13 – 7 = 6%.

The maximum permanent impairment rating for Whitehand Vibration Syndrome is 12% whole person impairment. No impairment rating will be assigned for involvement of a foot or feet unless there is evidence of i) Whitehand Vibration Syndrome, and ii) an abnormality of the neurovasculature of the feet on objective testing. The maximum permanent impairment rating for involvement of the feet is 6% whole person impairment (3% for one foot only).

REFLEX SYMPATHETIC DYSTROPHY (RSD)
also known as CHRONIC REGIONAL PAIN SYNDROME Type 1 (CRPS 1):

Reflex sympathetic dystrophy is an uncommon complication that may arise from trauma to an extremity. Permanent impairment may develop in those cases that go on to chronicity despite aggressive treatment. Diagnosis of this condition must be accurate and a characteristic criterion is provided for establishment of the diagnosis in consideration of permanent impairment. Individuals diagnosed with chronic RSD (CRPS 1) by this criterion are entitled to a permanent impairment assessment examination with the rating derived from the appropriate section and method in this Guide (refer to Upper Extremity and Lower Extremity chapters). Where the condition has been present for two years or more, it is considered to be permanent and the Permanent Medical Impairment (PMI) assessment examination can be performed.

The following 12 objective characteristics [listed as (i) to (xii)] are set forth for the diagnosis of RSD (CRPS 1):

(A) Clinical signs of a vasomotor nature:
- (i) edema
- (ii) reduced skin temperature
- (iii) skin cyanosis or skin colour mottling

(B) Clinical signs of a sudomotor nature:
- (iv) hyperhydrosis
- (v) anhydrosis or oligohydrosis

(C) Clinical signs of a trophic nature:
- (vi) smooth skin texture (shine present with absence of skin folds)
- (vii) joint stiffness (passive)
- (viii) acral soft tissue atrophy
- (ix) nail changes (thickened, curved, claw-like)
- (x) regional alopecia or lanugo hair growth

(D) Diagnostic Imaging
- (xi) trophic bone changes (osteoporosis) on X-ray
- (xii) positive (hot) radionuclide bone scan findings

RSD diagnosis is considered established if 8 or more characteristics are present.

COMBINED VALUES CHART

Effective January 1, 2005

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