Department of Labor and Industry Workers' Compensation Division

Adopted Amendments to Temporary Rules of the State Department of Labor and Industry Governing Workers' Compensation Permanent Partial Disability Schedule

Temporary Rules as Adopted

8 MCAR S 1. 9001 [Temporary] Workers' compensation permanent partial disability schedule rules.
A. Purpose of schedules. Laws of Minnesota 1983, chapter 290, section 86 , requires the commissioner of labor and industry to promulgate temporary rules assigning specific percentages of disability of the whole body for specific permanent partial disabilities. Rules 8 MCAR SS 1.9001-1.9025 [Temporary] assign percentages of disability of the whole body for permanent partial disabilities.
B. Interpretation of schedules. Only the categories set forth in the schedules in 8 MCAR SS 1.9001-1. 9025 [Temporary] may be used when rating the extent of a disability. Where a category represents the disabling condition, the disability determination shall not be based on the cumulation of lesser included categories. If more than one category may apply to a condition, the category most closely representing the condition shall be selected. Where more than one category is necessary to represent the disabling condition, categories shall be selected to avoid double compensation for any part of a condition. The percentages of disability to the whole body as set forth in two or more categories shall not be averaged, prorated, or otherwise deviated from, unless specifically provided in the schedule. Unless provided otherwise, where an impairment must be rated under more than one category, the ratings must be combined as provided in Minnesota Statutes, section 176.105 , subdivision 4 , clause (c). With respect to the musculo-skeletal schedule, the percent of whole body disability for motor or sensory loss of a member shall not exceed the percent of whole body disability for
amputation of that member.
C. Disabilities not part of schedules. A category not found within 8 MCAR SS 1.9001-1. 9025 [Temporary] shall not be used to determine permanent partial disability.
D. Rules of construction. The technical terms in 8 MCAR SS 1.9001-1.9025 [Temporary] are defined in either 8 MCAR S 1.9002 [Temporary], or by the documents incorporated by reference in this rule. Documents are incorporated by reference only to the extent necessary for definition or to the extent specifically referenced in a schedule. These documents are as follows:

1. Guides to the Evaluation of Permanent Impairment, published by the American Medical Association, Committee on Rating of Mental and Physical Impairment, 1976 edition. This document is also known as the A.M.A. Guides.
2. Snellen Charts, published by American Medical Association Committee for Eye Injuries and designated Industrial Vision Test Charts. These charts are also known and referred to as A.M.A. charts;
3. American Medical Association Rating Reading Card of 1932, published by the American Medical Association Committee for Eye Injuries. This document is also known as the A.M.A. Card.
4. American National Standard Institutes, Inc., S3.1-1977 Criteria for Permissible Ambient Noise during Audiometric Testing and S3.6-1969 (R1973) Specification for Audiometers;
5. Metropolitan Life Insurance Company Height and Weight Tables, published by the Metropolitan Life Insurance Company, 1983;
6. The Revised Kenny Self-Care Evaluation: A Numerical Measure of Independence in Activities of Daily Living, Sister Kenny Institute, 1973;
7. Dorland's Illustrated Medical Dictionary, 25 th edition, 1974. This document is also known as Dorland's;
8. D.S.M. III, Diagnostic and Statistical Manual of Mental Disorders, American Psychiatric Association, 1980. This document is also known as D.S.M. III;
9. Fractures, Charles A. Rockwood and David Green, 1975;
10. Textbook on Anatomy, William Henry Hollinshead, 1974; and
11. "The Estimation of Areas of Burns," in Surgery, Gynecology and Obstetrics, by Lund and Browder, pages 352-358, volume 79, 1944. This document is referred to as Lund and Browder.
E. Severability. If any provision of these rules is held to conflict with a governing statute, applicable provisions of the Minnesota Administrative Procedure Act, or other relevant law; to exceed the statutory authority conferred; to lack a reasonable relationship to statutory purposes or to be unconstitutional, arbitrary, or unreasonable; or to be invalid for any other reason; the validity and enforceability of the remaining provisions of the rule shall in no manner be affected.

8 MCAR S 1.9002 [Temporary] Definitions.
A. Scope. For the purpose of 8 MCAR SS 1.9001-1.9025 [Temporary] the terms defined in this rule have the meanings given them unless the context clearly indicates otherwise. Terms not defined in this rule are defined in Dorland's or other documents incorporated by reference. If the definition in a document incorporated by reference conflicts with or differs from the definition set forth in 8 MCAR S 1.9001-1.9025 [Temporary], the specific definitions set forth in these rules shall govern.
B. Acromio-clavicular grade 1. "Acromio-clavicular grade l" means an undisplaced acromio-clavicular joint.
C. Acromio-clavicular grade 2. "Acromio-clavicular grade 2" means a 50 percent displacement of the clavicle in relationship to the acromion at the acromio-clavicular joint.
D. Acromio-clavicular grade 3. "Acromio-clavicular grade 3" means a completely disrupted acromio-clavicular joint.
E. Activities of daily living. "Activities of daily living" means the ability to perform self cares, to perform housework and related tasks, to ride in or operate a motor vehicle, and to perform vocational tasks not requiring physical labor.
F. Ankylosis. "Ankylosis" means the stiffening or fixation of a joint.
G. ANSI. "ANSI" means the American National Standards Institute.
H. Banding. "Banding" means a thick, rope-like cord of hypertrophic scarring resulting from burns.
I. Category. "Category" means a permanent partial disability as described in these rules and the corresponding percent of disability to the whole body for that permanent partial disability.
J. Chronic. "Chronic" means the repeated or continuous occurrence of a specific condition or symptom.
K. Demonstrable degenerative changes. "Demonstrable degenerative changes" means radiographic findings demonstrating the presence of degeneration of intervertebral disc or facet joints. Examples of demonstrable degenerative changes are disc space narrowing, small osteophytes, and facet joint hypertrophic changes.
L. Desirable level of weight. "Desirable level of weight" means preferred weights set forth in tables created by the Metropolitan Life Insurance Company.
M. Disarticulation. "Disarticulation" means an amputation occurring through a joint.
N. Distance vision. "Distance vision" means the ability to distinguish letters at a distance of 20 feet according to the Snellen and A.M.A. Charts.
0. Family member. "Family member" means cohabitants and is not limited to those related by blood or marriage. In cases of institutionalization or similar nonhome environment, family member may include staff members who care for the individual on a regular basis.
P. Fore-quarter. "Fore-quarter" means the amputation of the upper extremity involving the scapula, clavicle, and muscles that attach to the chest.
Q. Fusion. "Fusion" means the surgical uniting of one vertebral segment to an adjoining vertebral segment.
R. Gastrostomy. "Gastrostomy" means a surgical creation of a gastric fistula through the abdominal wall for the purpose of introducing food into the stomach.
S. Glossopharyngeal. "Glossopharyngeal" means the ninth cranial nerve with sensory fibers to the tongue and pharynx. It affects taste and swallowing.
T. Gross motor weakness. "Gross motor weakness" means total or partial loss as described at 8 MCAR S 1.9016 A. and B.
U. Hypertrophic scar. "Hypertrophic scar" means an elevated irregularly shaped mass of scar tissue.
V. Hypoglossal. "Hypoglossal" means the motor nerve to the tongue. It is the 12 th cranial nerve and carries impulses from the brain to the tongue, including movement of muscles and secretion of glands and motor movement.
W. Kenny scale. "Kenny scale" means the Kenny self-care evaluation system as set forth in The Revised kenny Self-Care Evaluation: A Numerical Measure of Independence of Activities of Daily Living.
X. Laminectomy. "Laminectomy" means the removal of part or all of the lamina of one vertebral segment, usually with associated disc excision.
Y. Lethargy. "Lethargy" means, in relation to a nervous system injury to the brain, that an individual is drowsy, but can be aroused.
Z. Moderate referred shoulder and arm pain. "Moderate referred shoulder and arm pain" means pain of an intensity necessitating decreased activity in order to avoid the pain. This pain is demonstrated in a dermatomal distribution into the shoulder and upper extremity.

AA. Moderate partial dislocation. "Moderate partial dislocation" means a loss of normal vertebral alignment of up to 50 percent of the vertebral body on the adjacent vertebral body associated with vertebral fractures.

BB. Near vision. "Near vision" means clearness of vision at the distance of 14 inches.
CC. Nonpreferred extremity. "Nonpreferred extremity" means
the arm or leg not used dominantly, as for example, the left hand of a right-handed writer.

DD. Objective clinical findings. "Objective clinical findings" as used in 8 MCAR S 1.9007 [Temporary] means examination results which are reproducible and consistent. Examples of objective clinical findings are involuntary muscle spasms, consistent postural abnormalities, and changes in deep tendon reflexes.

EE. Postural abnormality. "Postural abnormality" means a deviation from normal posture, as found on anterior/posterior or lateral X-rays, that involves the spine and pelvis or segments of the spine or pelvis, such as kyphosis, lordosis, or scoliosis.

FF. Preferred extremity. "Preferred extremity" means the dominant leg or arm, as for example, the right arm of a right-handed person.

GG. Presbycusis. "Presbycusis" means a decline in hearing acuity that occurs with the aging process.

HH. Pseudophakia. "Pseudophakia" means that the crystalline lens of the eye has been replaced with a surgically implanted lens.
II. Self cares. "Self cares" means bed activities, transfers, locomotion, dressing, personal hygiene, bowel and bladder, and feeding as described in The Revised Kenny Self-Care Evaluation: A Numerical Measure of Independence in Activities of Daily Living, pages $10-24$.

JJ. Spinal stenosis. "Spinal stenosis" means the narrowing of the spinal canal.

KK. Spondylolisthesis. "Spondylolisthesis" means the forward movement of one vertebral body of one of the lower lumbar vertebrae on the vertebrae below it or upon the sacrum.

LL. Spondylolisthesis grade 1. "Spondylolisthesis grade 1 " means forward movement from zero to 25 percent of the vertebral body.
MM. Spondylolisthesis grade 2. "Spondylolisthesis grade 2" means forward movement. from 25 to 50 percent of the vertebral body.

NN. Spondylolisthesis grade 3. "Spondylolisthesis grade 3" means movement from 50 to 75 percent of the vertebral body.
00. Spondylolisthesis grade 4. "Spondylolisthes is grade 4" means forward movement from 75 to 100 percent of the vertebral body.

PP. Stupor, "Stupor" means, in relation to a nervous system injury to the brain, that a strong stimulus or pain is needed to arouse consciousness or response.

QQ. Tinnitus. "Tinnitus" means a subjective sense of noises in the head or ringing in the ear for which there is no observable external cause.

RR. Trigeminal. "Trigeminal" means the mixed nerve with sensory fibers to the face, cornea, anterior scalp, nasal and oral cavities, tongue and supertentorial dura matter. It also has motor fibers to the muscles of mastication. It is the fifth cranial nerve.

SS. Vertigo. "Vertigo" means a sensation of moving around in space or having objects move about the person. It is the result of a disturbance of the equilibratory apparatus.

TT. Vestibular. "Vestibular" means the main division of the auditory nerve. It is the eighth cranial nerve and deals with equilibrium.

UU. Wrinkling. "Wrinkling" means small ridges on the skin formed by shrinking or contraction as a result of burns.

VV. $14 / 14$. "14/14" is a term used in the measurement of near vision. It is the clearness of vision at a distance of 14 inches. The numerator is the test distance in inches. The denominator is the distance at which the smallest letter on the A.M.A. card can be seen.

WW. $20 / 20$ Snellen or A.M.A. Chart. " $20 / 20$ Snellen or A.M.A. Chart" refers to a chart imprinted with block letters or numbers in gradually decreasing sizes, identified according to distances at which they are ordinarily visible. It is used in testing visual acuity. The numerator is the test distance in feet. The denominator is the distance at which the smallest letter discriminated by a patient would subtend five minutes of arc.

## 8 MCAR S 1.9003 [Temporary] Eye schedule.

A. Complete loss of vision. For complete loss of vision in both eyes, disability of the whole body is 85 percent. For complete loss of vision in one eye, disability of the whole body is 24 percent. In determining the degree of vision impairment and of whole body disability, B. -F. shall be used.
B. Examination. Disability shall not be determined until all medically acceptable attempts to correct the defect have been made. Prior to the final examination on which disability is to be determined, at least six months shall elapse after all visible inflamation has disappeared. In cases of disturbance of extrinsic ocular muscles, optic nerve atrophy, injury of the retina, sympathetic ophthalmia, and traumatic cataract, at least 12 months shall elapse before the final examination is made. Testing shall be conducted with corrective lenses applied, unless indicated otherwise in this rule.
C. Maximum and minimum limits of primary coordinate factors of vision. The primary coordinate factors of vision are central visual acuity, visual field efficiency, and ocular motility. The determination of maximum and minimum limits for each of the coordinate functions is established below.

1. Maximum limit.
a. The maximum limit of central visual acuity is the ability to recognize letters or characters which subtend an angle of five minutes, each unit part of which subtends a one-minute angle at the distance viewed. A $20 / 20$ Snellen or A.M.A. chart is 100 percent (maximum) central visual acuity for distance vision. $14 / 14$ A.M.A. card is 100 percent (maximum) central visual acuity for near vision.
b. The maximum visual field is defined as 500 degrees. It is the sum of the degrees in the eight principal meridians from the point of fixation to the outermost limits of visual perception and defines the area in which a three millimeter white target is visible at 33 centimeters. One hundred percent visual field efficiency is that visual field which extends from the point of fixation outward 85 degrees, down 65 degrees, down
and in 50 degrees, inward 60 degrees, in and up 55 degrees, upward 45 degrees, and up and out 55 degrees.
c. Maximum ocular motility is present if there is absence of diplopia in all parts of the field of binocular fixation, and if normal binocular motor coordination is present.
2. Minimum limit.
a. The minimum limit of central visual acuity is (1) for distance vision, $20 / 800$ snellen or A.M.A. chart;
(2) for near vision, $14 / 560$ A.M.A. card.
b. The minimum limit for field vision is established as a concentric central contraction of the visual field to five degrees. Five degrees of contraction of the visual field reduces the visual efficiency of the eye to zero.
c. The minimum limit for ocular motility is established by the presence of diplopia in all parts of the field of binocular fixation or by absence of binocular motor coordination. The minimum limit is 50 percent ocular motility efficiency.
D. Measurement of coordinate factors of vision and the computation of their partial loss.
3. Central visual acuity efficiency. Central visual acuity shall be measured both for distance vision and for near vision, each eye being measured separately, both with and without correction. A Snellen or A.M.A. chart shall be used for distance vision and an A.M.A. card shall be used for near vision. Illumination shall be at least five footcandles.
a. Table 1 shows the percentage of visual efficency corresponding to the notations for distance vision and for near vision. For test readings between those listed on the chart, round up from the midpoint to the nearest reading, and round down from below the midpoint.

Where distance vision is less than $20 / 200$ and the A.M.A. chart is used, readings are at ten feet. The test reading is translated to the corresponding distance reading in Table 1 by multiplying both the numerator and the denominator of the test
reading by two.
TABLE 1
Central Visual Acuity

| A.M.A. Chart | A.M.A. | Percentage of |
| :---: | :---: | :---: |
| or Snellen | Card | Central |
| Reading for | Reading | Visual Acuity |
| Distance | for Near | Efficiency |

20/30
$14 / 21$
91.5

20/32.1
....
90.0

20/35
$14 / 24.5$
87.5

20/38. 4
.....
85.0

20/40
$14 / 28$
83.6

20/44.9
$14 / 31.5$
80.0
$20 / 50$
$14 / 35$
76.5

20/52.1
....
75.0

20/60
$14 / 42$
69.9

20/60.2
.....
70.0

20/68.2
.....
65.0

20/70
$14 / 49$
64.0

20/77.5
.....
60.0

20/80
$14 / 56$
58.5

20/86. 8
.....
55.0

20/90
14/63
53.4

20/97. 5
. . .
50.0
$20 / 100$
14/70
48.9

| $20 / 109.4$ | $\cdots$ | 45.0 |
| :--- | :--- | :--- |
| $20 / 120$ | $14 / 84$ | 40.9 |
| $\ldots .$. | $14 / 89$ | 38.4 |


| $20 / 122.5$ | $\cdots .$. | 40.0 |
| :--- | :--- | :--- |
| $20 / 137.3$ | $\cdots \cdots$. | 35.0 |
| $20 / 140$ | $14 / 98$ | 34.2 |


| $20 / 155$ | $\cdots \cdots$ | 30.0 |
| :--- | :--- | :--- |
| $20 / 160$ | $14 / 112$ | 28.6 |
| $20 / 175$ | $\ldots .$. | 25.0 |


| $20 / 180$ | $14 / 126$ | 23.9 |
| :--- | :--- | ---: |
| $20 / 200$ | $14 / 140$ | 20.0 |
| $20 / 220$ | $14 / 154$ | 16.7 |

$20 / 240 \quad 14 / 168 \quad 14.0$

|  | 14/178 | 12.3 |
| :---: | :---: | :---: |
| 20/260 | 14/182 | 11.7 |

20/280
14/196
9.7
8.2
6.8
5.7
4.8
4.0

| $20 / 400$ | $14 / 280$ | 3.3 |
| :--- | :--- | :--- |
| $20 / 450$ | $14 / 315$ | 2.1 |
| $20 / 500$ | $14 / 350$ | 1.4 |
|  |  |  |
| $20 / 600$ | $14 / 420$ | 0.6 |
| $20 / 700$ | $14 / 490$ | 0.3 |

$20 / 800$
$14 / 560$
0.1
b. The percentage of central visual acuity efficiency of the eye for distance vision is that percentage in Table 1 which corresponds to the test reading for distance vision for that eye.
c. The percentage of central visual acuity efficiency of the eye for near vision is that percentage in Table 1 which corresponds to the test reading for near vision for that eye.
d. The percentage of central visual acuity efficiency of the eye in question is determined as follows:
(1) Multiply by two the value determined for corrected near vision in c.
(2) Add the product obtained in step 1 to the value determined for corrected distance vision in b.
(3) Divide the sum obtained in step 2 by three. The following is an example of this calculation. If the central visual acuity efficiency for distance is 70 percent, and that for near is 25 percent, the percentage of central visual acuity efficiency for the eye is:
$70 \%+(2 \times 25)$
$3 \quad=40 \%$ central visual acuity efficiency
e. For traumatic aphakia, the corrected central visual acuity efficiency of the eye is 50 percent of the central visual acuity efficiency determined in d. This paragraph shall not apply if an adjustment for glasses or contact lenses pursuant to E.2.b. or c. results in a lower visual efficiency than would be given by application of this paragraph.
f. For traumatic pseudophakia, the corrected central visual acuity efficiency of the eye is 80 percent of the central visual acuity efficiency determined in $d$. This paragraph shall not apply if an adjustment for glasses or contact lenses pursuant to E.2.b. or c. results in a lower visual efficiency than would be given by application of this paragraph.
2. Visual field efficiency. For each eye, the extent of the field of vision shall be determined by perimetric test methods. A three millimeter. white disk which subtends a
0.5 -degree angle under illumination of not less than seven footcandles shall be used. For aphakia, a six millimeter white disk shall be used. The result shall be plotted on the visual field chart as illustrated in the A.M.A. Guides, page 94.
a. The amount of radial contraction in the eight principal meridians shall be determined. The sum of the degrees of field vision remaining on these meridians, divided by 500 , is the visual field efficiency of one eye, expressed as a percentage. If the eye has a concentric central contraction of the field to a diameter of five degrees, the visual efficiency is zero.
b. When the impairment of field is irregular and not fairly disclosed by the eight radii, the determination shall be based on a number of radii greater than eight and the divisor in a. shall be changed accordingly.
c. Where there is a loss of a quadrant or a
half-field, the degrees of field vision remaining in each meridian are added to one-half the sum of the two boundary meridians.
3. Ocular motility. Ocular motility shall be measured in all parts of the motor field with any useful correction applied.
a. All directions of gaze shall be tested with use of a test light and without the addition of colored lenses or correcting prisms. The extent of diplopia is determined on the perimeter at 330 millimeters or on a tangent screen at a distance of one meter from the eye.
b. Plot the test results on a motility chart as illustrated in the A.M.A. Guides, page 97.
c. Determine the percentage loss of ocular motility from the motility chart. This percentage is assigned to the injured eye or, if both eyes are injured, to the eye with the greatest impairment of central visual acuity and field vision. The eye with the greatest impairment means the eye for which the product of central visual acuity efficiency and visual field efficiency is the least. For the purpose of calculation, a value of zero percent is deemed to be one percent. For the
other eye, the percentage loss of ocular motility is zero.
d. The percentage loss of ocular motility is
subtracted from 100 percent to obtain the ocular motility efficiency. The minimum ocular motility efficiency of one eye is 50 percent.
E. Visual efficiency. The visual efficiency of one eye is the product of the efficiency values of central visual acuity, of visual field, and of ocular motility. For the purpose of this calculation, these values shall be expressed as decimals and not as percentages; a value of zero percent is deemed to be one percent.

1. For example, if central visual acuity efficiency is 50 percent, visual field efficiency is 80 percent, and ocular motility efficiency is 100 percent, the visual efficiency of the eye is .50 times .80 times 1.00 , equals 40 percent. If ocular motility efficiency is changed to 50 percent, the visual efficiency is .50 times . 80 times. 50 , equals 20 percent.
2. Visual efficiency shall be adjusted as set in this clause. Visual efficiency may not be less than zero percent. No adjustment for glasses or contacts shall be made in cases of aphakia or pseudophakia where the central visual efficiency was adjusted pursuant to D.I.e. or f.
a. Visual efficiency shall be decreased by subtracting two percent for any of the following conditions which are present due to the injury: loss of color vision; loss of adaptation to light and dark; metamorphosis; entropion or ectropion uncorrected by surgery; lagophthalmos; epiphora; and muscle disturbances such as ocular ticks not included under diplopia.
b. If glasses are required as a result of the injury, or if as a result of the injury the refractive error increases by at least one diopeter of sphere or of cylinder or of both, subtract five percent from the visual efficiency. Where the glasses contain prisms, subtract six percent.
C. If a noncosmetic contact lens is required in one or both eyes as a result of the injury, subtract seven percent from
the visual efficiency.
F. Procedure for determining whole body disability due to
vision loss. For each eye, subtract the percentage of visual
efficiency as determined in E. from 100 percent. The difference
is the percentage impairment of each eye. The better eye has
the lower percentage impairment. The poorer eye has the greater
percentage impairment.

3. Multiply the percentage impairment of the better eye
by three.
4. Add the percentage impairment of the poorer eye to the
product obtained in step 1 .
5. Divide the sum obtained in step 2 by four.
6. The quotient obtained in step 3 is the percentage
impairment of the visual system. Fractions shall be rounded to
the nearest whole number percentage as provided in D.1.a.
7. The percentage impairment of the visual system is
translated to the percentage disability of the whole body by
Table 2.
Table 2

Eye Schedule

| Impairment | Disability |
| :---: | :---: |
| of Visual | of Whole |
| System, $\%$ | Man, $\%$ |
| 45 | 42 |
| 46 | 43 |
| 47 | 44 |
| 48 | 45 |
| 49 | 46 |
| 50 | 47 |
| 51 | 48 |
| 52 | 49 |
| 53 | 50 |
| 54 | 51 |
| 55 | 52 |
| 56 | 53 |
| 57 | 54 |
| 58 | 55 |
| 59 | 56 |
| 60 | 57 |
| 61 | 58 |
| 62 | 59 |
| 63 | 69 |
| 64 | 60 |
| 65 | 61 |
| 66 | 63 |
| 67 | 64 |
| 68 | 65 |
| 69 | 66 |
| 70 | 67 |
| 71 |  |

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18

|  |  |  | 69 |
| :--- | :--- | :--- | :--- |
| 28 | 26 |  |  |
| 29 | 27 | 73 | 70 |
| 30 | 28 | 74 | 71 |
| 31 | 29 | 75 | 72 |
| 32 | 30 | 76 | 73 |
| 33 | 31 | 77 | 74 |
| 34 | 32 | 78 | 75 |
| 35 | 33 | 79 | 76 |
| 36 | 34 | 80 | 76 |
| 37 | 35 | 81 | 77 |
| 38 | 36 | 82 | 78 |
| 39 | 37 | 83 | 79 |
| 40 | 38 | 84 | 80 |
| 41 | 39 | 85 | 81 |
| 42 | 40 | 86 | 82 |
| 43 | 41 | 88 | 83 |
| 44 | 42 | 89 | 84 |
|  |  | -100 | 85 |

8 MCAR S 1.9004 [Temporary] Ear schedule.
A. General. For hearing loss, the maximum disability of the whole body is 35 percent. The procedures in B. -G. shall be used to determine the extent of binaural hearing loss and of whole body disability.
B. Medical diagnosis. Otological evaluation shall be the method for determining the degree of permanent partial hearing loss. The medical diagnosis shall include the following:

1. A complete history of occupational, military, and recreational noise exposure. This medical history shall include documentation of any previous hearing loss, if that information is available;
2. A complete physical examination of the ear; and
3. An audiological evaluation which shall include pure tone air conduction and bone conduction testing.
C. Standards for audiometric calibration and test environment. To ensure accurate measurement of hearing loss, the following standards shall be observed in conducting the tests required in $B$. :
4. The audiometer used to measure hearing loss shall be calibrated to meet the specifications of ANSI S3.6-1969 (RI973), Specifications for Audiometers. The following are also required:
a. Biological or electroacoustical calibration checks of the audiometer shall be performed monthly;
b. Electroacoustical calibration shall be performed annually to certify the audiometer to the ANSI standard in 1 ;
and
shall be provided upon request; and
5. Audiometric test rooms or booths shall meet the specifications of ANSI S3.1-1977, Criteria for Permissible Ambient Noise during Audiometric Testing.
D. Waiting period for final evaluation of hearing loss. A waiting period of at least three months shall elapse between the date of the occurrence of the noise injury and the final evaluation of the permanent partial hearing loss.
E. Procedure for determining disability of whole body due to hearing loss.
6. The binaural hearing loss is determined. The calculation for the percent of binaural hearing loss consists of the following steps:
a. For each ear, test the hearing threshold levels at the four frequences of $500,1,000,2,000$, and 3,000 Hertz;
b. For each ear, determine the average four-frequency hearing level. The average four-frequency hearing level is one-fourth of the sum of the threshold levels at each of the four tested frequencies. The average four-frequency hearing level is expressed in decibels;
c. For each ear, subtract 25 decibels from the average four-frequency hearing level for that ear. The remainder, expressed in decibels, is the adjusted average four-frequency hearing level;
d. For each ear, multiply the adjusted average four-frequency hearing level by 1.5 percent. The product is the monaural hearing loss, expressed as a percentage. A product less than zero percent is deemed to be zero. A product greater than 100 percent is deemed to be 100 percent;
e. Considering both ears, compare the monaural hearing losses as determined in d. The ear with the smaller monaural hearing loss is the better ear. The ear with the larger monaural hearing loss is the poorer ear; and
f. Multiply the monaural hearing loss of the better
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ear by five, add this product to the monaural hearing loss of
the poorer ear, and divide the sum by six. The quotient is the
binaural hearing loss, expressed as a percentage. The formula
is:
    (monaural hearing, (monaural hearing, percent binaural
5 x loss of better ear) + loss of poorer ear) = hearing loss
            6
2. The calculation of the percent of binaural hearing loss is illustrated by the following examples.
Example 1
500 Hertz 1,000 Hertz 2,000 Hertz 3,000 Hertz
Right ear 15 25, 45 55
Left ear 30, 35, 60, 
a. Calculation of the average four-frequency hearing level:
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b. Calculation of adjusted average four-frequency
hearing level:
        Right ear = 35 decibels - 25 decibels = 10 decibels;
            Left ear = 55 decibels - 25 decibels = 30 decibels;
            c. Calculation of monaural hearing loss:
            Right ear = 10 x 1.5% = 15%
            Left ear = 30 x 1.5% = 45%
            a. Calculation of binaural hearing loss;
            (15% < 5) + 45% = 20 percent binaural hearing loss
                    Example 2
            500 Hertz 1,000 Hertz, 2,000 Hertz, 3,000 Hertz
Right ear
                20
                    25
                                    30
                                    35
Left ear < 30 % 45, 60, 85
    a. Calculation of average four-frequency hearing level.
            Right ear = 20 + 25+30 + 35 < < 25 decibels
            Left ear = 年 + 45+60+85
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## b. Calculation of adjusted average four-frequency

hearing level.

> Right ear $=25$ decibels -25 decibels $=0$ decibels Left ear $=55$ decibels -25 decibels $=30$ decibels
c. Calculation of monaural hearing loss:

Right ear $=0 \times 1.5$ percent $=0$
Left ear $=30 \times 1.5$ percent $=45$ percent
d. Calculation of binaural hearing loss: $(0 \% \times 5)+45 \%$
$6 \quad=7.5$ percent binaural hearing loss
3. The binaural hearing loss is translated to a
percentage of disability of the whole body by the ear schedule set forth below:

EAR SCHEDULE

| Binaural Hearing | Disability Whole Bo |
| :---: | :---: |
| Loss, Percent | Percent |
| $0-1.7$ | 0 |
| $1.8-4.2$ | 1 |
| $4.3-7.4$ | 2 |
| $7.5-9.9$ | 3 |
| 10.0-13.1 | 4 |
| $13.2-15.9$ | 5 |
| 16.0-18.8 | 6 |
| 18.9-21.4 | 7 |
| $21.5-24.5$ | 8 |
| 24.6-27.1 | 9 |
| 27.2-30.0 | 10 |
| $30.1-32.8$ | 11 |
| $32.9-35.9$ | 12 |
| $36.0-38.5$ | 13 |
| $38.6-41.7$ | 14 |
| 41.8-44.2 | 15 |
| $44.3-47.4$ | 16 |
| 47.5-49.9 | 17 |
| $50.0-53.1$ | 18 |
| $53.2-55.7$ | 19 |
| $55.8-58.8$ | 20 |
| $58.9-61.4$ | 21 |
| 61.5-64.5 | 22 |
| 64.6-67.1 | 23 |
| $67.2-70.0$ | 24 |
| $70.1-72.8$ | 25 |
| $72.9-75.9$ | 26 |
| 76.0-78.5 | 27 |
| 78.6-81.7 | 28 |
| 81.8-84.2 | 29 |
| $84.3-87.4$ | 30 |
| 87.5-89.9 | 31 |
| 90.0-.93.1 | 32 |
| $93.2-95.7$ | 33 |
| $95.8-98.8$ | 34 |

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F. Presbycusis. The calculation of the binaural hearing loss shall not include an additional adjustment for presbycusis.
G. Tinnitus. No additional percentage of permanent partial disability for hearing loss shall be allowed for tinnitus.

8 MCAR S 1.9005 [Temporary] Skull defects.
A. Skull depressions. For skull defects the percent of disability of the whole body is provided by the following schedule:

Unfilled defect Filled defect Percent Percent
$0-1-1 / 2$ square inches $0 \quad 0$
$1-1 / 2-2-1 / 2$ square inches $\quad 5 \quad 0$
$2-1 / 2-\quad 4$ square inches $\quad 10 \quad 2$
$4-6-1 / 2$ square inches $\quad 15 \quad 3$
$6-1 / 2$ or more square inches $\quad 20 \quad 5$
B. Skull fractures.

1. Basilar skull fracture with persistent spinal fluid leak, 20 percent.
2. Basilar skull fracture without cerebrospinal fluid leak, 0 percent.

8 MCAR S 1.9006 [Temporary] Central nervous system.
A. General. For permanent partial disability of the central nervous system the percentage of disability of the whole body is as provided in B. - I.
B. Trigeminal nerve. Permanent partial disability of the trigeminal nerve is a disability of the whole body as set forth below:

1. Partial unilateral sensory loss, 3 percent;
2. Complete unilateral sensory loss, 5 percent;
3. Partial bilateral sensory loss, 10 percent;
4. Complete bilateral sensory loss, 25 percent;
5. Intractable trigeminal neuralgia, 20 percent;
6. Atypical facial pain, 5 percent;
7. Partial unilateral motor loss, 2 percent;
8. Complete unilateral motor loss, 5 percent;
9. Partial bilateral motor loss, 10 percent; or
10. Complete bilateral motor loss, 30 percent.
C. Facial nerve. Permanent partial disability of the facial nerve is a disability of the whole body as set forth below:
11. Total loss of taste, 3 percent;
12. Partial unilateral motor loss, 25 to 75 percent of function lost, 3 percent;
13. Unilateral motor loss, more than 75 percent of function lost, 10 percent;
14. Partial bilateral motor loss, 25 to 75 percent of function lost, 10 percent;
15. Bilateral motor loss, more than 75 percent of function lost, 20 percent.
D. Vestibular loss with vertigo or disequilibrium is a disability of the whole body as set forth below:
16. A score of 24 to 28 on the kenny scale, and restricted in activities involving personal or public safety, such as operating a motor vehicle or riding a bicycle, 10 percent;
17. A score of 16 to 28 on the Kenny scale, and ambulation impaired due to equilibrium disturbance, 30 percent;
18. A score of 10 to 16 on the Kenny scale, 40 percent;
19. A score of 0 to 10 on the kenny scale, 70 percent.
E. Glossopharyngeal, vagus and spinal accessory nerves. Permanent partial disability to glossopharyngeal, vagus and spinal accessory nerves is a disability of the whole body as set forth below:
20. Swallowing impairment caused by disability to any one or more of these nerves:
a. diet restricted to semi-solids, 10 percent;
b. diet restricted to liquids, 25 percent; or
c. diet by tube feeding or gastrostomy, 50 percent.
21. Mechanical disturbances of articulation due to
disability to any one or more of these nerves:
a. 95 percent or more of words are understood by those who are not family members and others outside the immediate
family, but speech is distorted, 5 percent;
b. 95 percent or more of words are understood by
family members, but speech is distorted and not easily understood by those who are not family members, 10 percent;
c. 75 percent or more of words are understood by
family members, but speech is distorted, 15 percent;
d. more than 50 percent of words are understood by family members, 20 percent;
e. less than 50 percent of words are understood by family members, 25 percent;
f. 10 percent or less of words are understood by family members, 30 percent.
G. Hypoglossal nerve. Permanent partial disability of hypog lossal nerve is a disability of the whole body as listed below:
22. Bilateral paralysis; swallowing impairment:
a. diet restricted to semi-solids, 10 percent;
b. diet restricted to liquids, 25 percent; and
c. diet by tube feeding or gastrostomy, 50 percent.
23. Mechanical disturbances of articulation:
a. 95 percent or more of words are understood by family members and others outside the immediate family, but speech is distorted, 5 percent;
b. 95 percent or more of words are understood by family members, but speech is distorted and not easily understood by nonfamily members, 10 percent;
c. 75 percent or more of words are understood by family members, but speech is distorted, 15 percent;
d. more than 50 percent of words are understood by family members, 20 percent;
e. less than 50 percent of words are understood by family. members, 25 percent;
f. 10 percent or less of words are understood by family members, 30 percent.
H. Spinal cord. To rate under this section, determine the disability to the lower extremities, upper extremities,
respiration, urinary bladder, anorectal, and sexual functions as set forth below. The percentage of whole body disability under this section is determined by combining the disabilities under 1.-6. in the manner described at Minnesota Statutes, section 176.105, subdivision 4, clause (c).
24. Lower extremities. A permanent partial disability in the use of lower extremities is a disability of the whole body as set forth below:
a. can rise to a standing position and can walk, but has difficulty walking onto elevations, grades, steps, and distances, 15 percent;
b. can stand but can walk only on a level surface, 30 percent;
c. can stand but cannot waik, 45 percent; and
d. can neither stand nor walk, 65 percent.
25. Upper extremities. Permanent partial disability in the use of upper extremities is a disability of the whole body as set forth below:

Whole Body Disability, Percentages
Preferred Nonpreferred Both extremity extremity
score of 24 to 28 on
Kenny scale, but some
difficulty with digital $10 \quad 5 \quad 15$
dexterity
score of 16 to 28
on Kenny scale, but no
digital dexterity $\quad 20 \quad 10 \quad 30$
score of 10 to 16 on
$40 \quad 40$
50
Kenny scale
score of 0 to 10 on
Kenny scale
70
70
85
3. Respiration. Permanent partial disability of the respiratory function is a disability of the whole body as set forth below:
a. difficulty only. where extra exertion is required,

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such as running, climbing stairs, heavy lifting, or carrying
loads, 10 percent;
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    b. restricted to limited walking, confined to one's
    own home, 35 percent;
c. restricted to bed, 75 percent; and
d. has no spontaneous respiration, 95 percent.
4. Urinary bladder function. Permanent partial
disability of the bladder is a disability of the whole body as
set forth below. Evaluative procedures to be followed are set
forth in 8 MCAR $S 1.9022$ [Temporary] B.
a. Impaired voluntary control evidenced by urgency or hesitancy, but continent without collecting devices, 10 percent.
b. Impaired voluntary control, incontinent requiring external collecting devices, 20 percent.
c. Impaired voluntary control, incontinent requiring internal collecting or continence devices, 30 percent.
5. Anorectal function. The permanent partial disability of the anorectal function is a disability of the whole body as set forth below:
a. impaired voluntary control with urgency, 10 percent;
b. impaired voluntary control without reflex regulation, 20 percent;
c. impaired voluntary control, incontinent without diversion, 30 percent.
6. Sexual function. Permanent partial disability of sexual function is a disability of the whole body as set forth below.
a. Male:
(1) impaired sexual function, but vaginal
penetration possible, 10 percent;
(2) impaired sexual function, and vaginal
penetration not possible, 20 percent.
b. Female:
(1) impaired sexual function, but penile containment
possible, 10 percent;
(2) impaired sexual function, and penile containment

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not possible, 20 percent.
    I. Brain injury. Supporting objective evidence of
structural injury, neurological deficit, or psychomotor findings
is required to substantiate the permanent partial disability.
Permanent partial disability of the brain is a disability of the
whole body as set forth below.
1. Communications disturbances, expressive:
a. mild disturbance of expressive language ability not significantly impairing ability to be understood, such as mild word-finding difficulties, mild degree of paraphasias, or mild dysarthria, 10 percent;
b. severe impairment of expressive language ability, but still capable of functional communication with the use of additional methods such as gestures, facial expression, writing, word board, or alphabet board, 35 percent;
c. unable to produce any functional expressive
language, 70 percent.
2. Communication disturbances, receptive:
a. mild impairment of comprehension of aural speech, but comprehension functional with the addition of visual cues such as gestures, facial expressions, or written material, 40 percent;
b. some ability to comprehend language is present, but significant impairment even with use of visual cues such as gestures, facial expressions, and written material, 60 percent;
c. no evidence of functional comprehension of language, 90 percent.
3. Complex integrated cerebral function disturbances must be determined by medical observation and organic dysfunctions supported by psychometric testing. Functional overlay or primary psychiatric disturbances shall not be rated under this rule. The permanent partial disabilities are as follows:
a. mild impairment of higher level cognitive function or memory, but able to live independently and function in the community as evidenced by independence in activities such as shopping and taking a bus, 20 percent;
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b. same as a., and also requires supporting devices and direction to carry out limited vocational tasks, 30 percent;
c. moderate impairment of memory, judgment, or other higher level cognitive abilities, can live alone with some supervision such as for money management, some limitation in ability to function independently outside the home in activities such as shopping and traveling, 50 percent;
d. moderately severe impairment of memory, judgment, or other higher cognitive abilities, unable to live alone and some supervision required at all times, but able to perform self cares independently, 70 percent;
e. severe impairment of memory, judgment, or other higher cognitive abilities such that constant supervision and assistance in self cares are required, 95 percent.
4. Emotional disturbances and personality changes must be substantiated by medical observation and by organic dysfunction supported by psychometric testing. Permanent partial disability is a disability of the whole body as set forth below:
a. only present under stressful situation such as losing one's job, getting a divorce, or a death in the family, 10 percent;
b. present at all times but not significantly impairing ability to relate to others, to live with others, or to perform self cares, 30 percent;
c. present at all times in moderate to severe degree, minimal ability to live with others, some supervision required, 65 percent;
d. severe degree of emotional disturbance which, because of danger to self and others, requires continuous supervision, 95 percent.
5. Psychotic disorders, as described in D.S.M. III, not caused by organic dysfunction and substantiated by medical observation:
a. only present under stressful situation, such as losing one's job, getting divorced, a death in the family, 10 percent;
b. present at all times but not significantly impairing ability to relate to others, live with others, or perform self cares, 30 percent;
c. present at all times in moderate to severe degree significantly affecting ability to live with others, and requiring some supervision, 65 percent;
d. severe degree of emotional disturbance which, because of danger to self or others, requires continuous supervision, 95 percent.
6. Consciousness disturbances; permanent partial disability of the whole body is as set forth below:
a. mild or intermittent decreased level of consciousness manifested by periodic mild confusion or lethargy, a score of 16 to 28 on the Kenny scale, 40 percent;
b. moderate intermittent or continuous decreased level of consciousness manifested by a moderate level of confusion or lethargy, and a score of 10 to 16 on the kenny scale, 70 percent;
c. severe decreased level of consciousness manifested as stupor with inability to function independently, and a score of 0 to 10 on the kenny scale, 95 percent;
d. comatose or persistent vegetative state, 99 percent.
7. Motor dysfunction, movement disorder, paralysis, spasticity, sensory loss, or neglect. Where these impairments are due to brain or brain stem injury, rate as provided in H.I. and 2.
8. Other impairments; impairments of respiration, urinary bladder function, anorectal function, or sexual function due to brain or brain stem injury are rated as provided in H. 3, -6.
9. Epilepsy; permanent partial disability due to epilepsy is a disability of the whole body as set forth below:
a. well controlled, on medication for one year or more, able to enter work force but with restrictions preventing operation of motor vehicles or dangerous machinery and climbing above six feet in height, 10 percent;
b. seizures occurring at least once a year, but not severely limiting ability to. live independently, 20 percent;
c. seizures occurring at least six times per year, some supervision required, 40 percent;
d. seizures poorly controlled with at least 15 seizures per year, supervision required, protective care required with activities restricted, 75 percent;
e. frequency of seizures requires continuous supervision and protective care, activities restricted, unable to perform self cares, 95 percent.
10. Headaches; permanent partial disability due to vascular headaches with nausea or vomiting is a five percent disability of the whole body.

8 MCAR S 1.9007 [Temporary] Musculo-skeletal schedule; back.
A. Lumbar spine. The spine rating is inclusive of leg symptoms except for gross motor weakness, bladder or bowel dysfunction, or sexual dysfunction. Permanent partial disability of the lumbar spine is a disability of the whole body as set forth below:

1. Healed sprain, strain, or contusion:
a. Subjective symptoms of pain not substantiated by objective clinical findings or demonstrable degenerative changes, 0 percent.
b. Pain associated with rigidity (loss of motion or postural abnormality) or chronic muscle spasm. The chronic muscle spasm or rigidity is substantiated by objective clinical findings but without associated demonstrable degenerative changes, 3.5 percent.
c. Pain associated with rigidity (loss of motion or postural abnormality) or chronic muscle spasm. The chronic muscle spasm or rigidity is substantiated by objective clinical findings and is associated with demonstrable degenerative changes.
(1) Single vertebral level, 7 percent.
(2) Multiple vertebral levels, 10.5 percent.
d. Pain associated with rigidity (loss of motion or postural abnormality) or chronic muscle spasm. The chronic muscle spasm or rigidity is substantiated by objective clinical

## findings.

(1) Spondylolisthesis grade $I$, no surgery, 7 percent.
(2) Spondylolisthesis grade II, no surgery, 14
percent.
(3) Spondylolisthesis grade III or IV, without fusion, 24.5 percent.
2. Herniated intervertebral disc, single vertebral level:
a. back and specific radicular pain present with objective neurologic findings; and X-ray or computerized axial tomography or myelogram specifically positive for herniated disc; and no surgery is performed for treatment, 14 percent;
b. condition treated by surgery:
(1) surgery or chemonucleolys is with excellent results such as mild low back pain, no leg pain, and no neurologic deficit, 9 percent;
(2) surgery or chemonucleolysis with average results such as mild increase in symptoms with bending or lifting, and mild to moderate restriction of activities related to back and leg pain, 11 percent;
(3) surgery or chemonucleolysis with poor surgical results such as persistent or increased symptoms with bending or lifting, and major restriction of activities because of back and leg pain, 13 percent;
(4) multiple operations on low back with poor surgical results such as persisting or increased symptoms of back and leg pain, 15 percent;
c. recurrent herniated intervertebral disc, occurring to same vertebral level previously treated with surgery or chemonucleolysis, add five percent to b. (1)-(4);
d. herniated intervertebral disc at a new vertebral
level other than the previously treated herniated intervertebral disc, calculate rating the same as a. and b.
3. Spinal stenosis, central or lateral, proven by computerized axial tomography or myelogram:
a. mild symptoms such as occasional back pain with athletic, activities or repetitive bending or lifting, leg pain
with radicular symptoms, one vertebral level and no surgery, 14
percent;
b. severe spinal stenosis with bilateral leg pain requiring decompressive laminectomy, single vertebral level, with or without surgery (if multiple vertebral levels, add five percent per vertebral level), 18 percent.
4. Fusion surgery. Spinal fusion surgery for single vertebral level with or without laminectomy, 17.5 percent. Add five percent for each additional vertebral level.
5. Fractures:
a. vertebral compression with a decrease of 25 percent or less in vertebral height, one or more vertebral segments, no fragmentation, no involvement posterior elements, no nerve root involvement, 10.5 percent;
b. vertebral compression fracture, with a decrease of more than 25 percent in vertebral height, one or more vertebral segments, no fragmentation, no involvement posterior elements, no nerve root involvement, 15 percent;
c. vertebral fracture with involvement of posterior elements with X-ray evidence of moderate partial dislocation:
(1) no nerve root involvement, healed, 10.5 percent;
(2) with persistent radicular pain, 12 percent;
(3) with surgical fusion, healed, no permanent motor or sensory changes, 14 percent;
d. severe dislocation:
(1) normal reduction with surgical fusion, 12
percent;
(2) poor reduction with fusion, persistent radicular pain, 17.5 percent;
B. Cervical spine. The spine rating is inclusive of arm symptoms except for gross motor weakness; sensory loss; and bladder, bowel, or sexual dysfunction. Bladder, bowel, or sexual dysfunction must be rated as provided in 8 MCAR S 1.9006 H. Permanent partial disability of the cervical spine is a disability of the whole body as set forth below:

1. Healed sprain, strain, or contusion:
a. Subjective symptoms of pain not substantiated by objective clinical findings or demonstrable degenerative changes, 0 percent.
b. Pain associated with rigidity (loss of motion or postural abnormality) or chronic muscle spasm. The chronic muscle spasm or rigidity is substantiated by objective clinical findings but without associated demonstrable degenerative changes, 3.5 percent.
c. Pain associated with rigidity (loss of motion or postural abnormality) or chronic muscle spasm. The chronic muscle spasm or rigidity is substantiated by objective clinical findings and is associated with demonstrable degenerative changes.
(1) Single vertebral level, 7 percent.
(2) Multiple vertebral levels, 10.5 percent.
2. Herniated intervertebral disc, single vertebral level:
a. Neck and specific radicular pain present with objective neurologic findings; and x-ray or computerized axial tomography or myelogram specifically positive for herniated disc; and no surgery is performed for treatment, 14 percent.
b. Condition treated by surgery:
(1) Surgery with excellent results such as mild neck pain, no arm pain, and no neurologic deficit, 9 percent.
(2) Surgery with average results such as mild increase in symptoms with neck motion or lifting, and mild to moderate restriction of activities related to neck and arm pain, 11 percent.
(3) Surgery with poor surgical results such as persistent or increased symptoms with neck motion or lifting, and major restriction of activities because of neck and arm pain, 13 percent.
(4) Multiple operations on neck with poor surgical results such as persisting or increased symptoms of neck and arm pain, 15 percent.
c. Recurrent herniated intervertebral disc, occurring to same vertebral level previously treated with surgery, add
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five percent to b.(1)-(4).
    d. Herniated intervertebral disc at a new vertebral
level other than the previously treated herniated intervertebral
disc, calculate rating the same as a. and b.
    3. Spinal stenosis, proven by computerized axial
tomography or myelogram.
    a. With myelopathy verified by objective neurologic
findings, no loss of function, l4 percent.
    b. Loss of function. Rate as provided in 8 MCAR S
1.9006 H.
    4. Fusion surgery. Anterior or posterior. Fusion of a
single vertebral level with or without a laminectomy, 11.5
percent. Add five percent for each additional vertebral level.
    5. Fracture:
    a. vertebral compression with a decrease of 25 percent
or less in vertebral height, one or more vertebral segments, no
fragmentation, no involvement posterior elements, no nerve root
involvement, loss of motion in the neck in all planes,
approximately }50\mathrm{ percent normal range of motion in neck with
pain, l4 percent;
    b. vertebral compression with a decrease of more than
25 percent of vertebral height, one or more vertebral segments,
no fragmentation, no involvement posterior elements, no nerve
root involvement, loss of motion in the neck in all planes,
approximately 50 percent normal range of motion in neck with
pain, 19 percent;
    c. vertebral fracture with involvement of posterior
elements with X-ray evidence of moderate partial dislocation:
            (1) no nerve root involvement, healed, 10.5 percent;
            (2) with persistent pain, 12 percent;
            (3) with surgical fusion, healed, no permanent motor
or sensory changes, 14 percent;
            d. severe dislocation:
            (1) normal reduction with surgical fusion, 12
percent;
(2) poor reduction with fusion, persistent radicular
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pain, 17.5 percent.
C. Thoracic spine. The spine rating is inclusive of all
symptoms including radicular gross motor weakness and sensory
loss, but excluding spinal cord injury. Permanent partial
disability of the thoracic spine is a disabilty of the whole
body as set forth below:

1. Healed sprain, strain, or contusion:
a. Subjective symptoms of pain not substantiated by objective clinical findings or demonstrable degenerative changes, 0 percent.
b. Pain associated with chronic muscle spasm. The chronic muscle spasm is substantiated by objective clinical findings and is associated with demonstrable degenerative changes, single or multiple level, 3.5 percent.
2. Herniated intervertebral disc, symptomatic:
a. Specific radicular pain present with objective neurologic findings, and x-ray or computerized axial tomography or myelogram specifically positive for herniated disc, and no surgery is performed for treatment, 5 percent.
b. Condition treated by surgery:
(1) Surgery with excellent results such as mild thoracic pain, no radicular pain, and no neurological deficit, 5 percent;
(2) Surgery with poor surgical results such as persistence of increased symptoms with lifting, and major restriction of activities, 10 percent.
3. Fractures:
a. Vertebral compression with a decrease of 25 percent or less in vertebral height, one or more vertebral segments, no fragmentation, no involvement posterior elements, no nerve root involvement, 10.5 percent.
b. Vertebral compression fracture, with a decrease of more than 25 percent in vertebral height, one or more vertebral segments, no fragmentation, no involvement posterior elements, no nerve root involvement, 15 percent.
c. Vertebral fracture with involvement of posterior
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elements with x-ray evidence of moderate partial dislocation:
    (1) no nerve root involvement, healed, 10.5 percent;
    (2) with persistent pain, with mild motor and
sensory manifestations, 17.5 percent;
    (3) with surgical fusion, healed, no permanent motor
or sensory changes, }14\mathrm{ percent.
    d. Severe dislocation, normal reduction with surgical
fusion:
            (1) No residual motor or sensory changes, }12\mathrm{ percent;
            (2) Poor reduction with fusion, persistent radicular
pain, motor involvement, 17.5 percent;
8MCAR S 1.9008 [Temporary] Musculo-skeletal schedule;
amputations of upper extremity.
    A. Permanent partial disability due to amputation of upper
extremities is a disability of the whole body as set forth below:
    1. forequarter amputation, 70 percent;
    2. disarticulation at shoulder joint, 60 percent;
    3. amputation of arm above deltoid insertion, 60 percent;
    4. amputation of arm between deltoid insertion and elbow
joint, 57 percent;
    5. disarticulation at elbow joint, }57\mathrm{ percent;
    6. amputation of forearm below elbow joint proximal to
insertion of biceps tendon, 57 percent;
    7. amputation of forearm below elbow joint distal to
insertion of biceps tendon, 54 percent;
    8. disarticulation at wrist joint, }54\mathrm{ percent;
    9. midcarpal or midmetacarpal amputation of hand, 54
percent;
    10. amputation of all fingers except thumb at
metacarpophalangeal joints, }32.5\mathrm{ percent;
    11. amputation of thumb:
            a. at metacarpophalangeal joint or with resection of
metacarpal bone, 21.5 percent;
    b. at interphalangeal joint or through proximal
phalynx, 16 percent;
    c. from interphalangeal joint to midportion distal
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phalynx, 13 percent;
    12. amputation of index finger:
    a. at metacarpophalangeal joint or with resection of
metacarpal bone or through proximal phalynx, 13.5 percent;
    b. at proximal interphalangeal joint or through midale
phalynx, ll percent;
    c. at distal interphalangeal joint to middistal
phalynx, 5 percent;
    d. from middistal phalynx, distal, 2 . 5 percent;
    13. amputation of middle finger:
    a. at metacarpophalangeal joint or with resection of
    metacarpal bone or through proximal phalynx, ll percent;
    b. at proximal interphalangeal joint or through middle
    phalynx, }9\mathrm{ percent;
    c. at distal interphalangeal joint to middistal
    phalynx, 5 percent;
    d. from middistal phalynx, distal, 2.5 percent;
    14. amputation of ring finger:
    a. at metacarpophalangeal joint or with resection of
    metacarpal bone or through proximal phalynx, 5.5 percent;
    b. at proximal interphalangeal joint or through middle
    phalynx, 4 percent;
    c. at distal interphalangeal joint to middistal
    phalynx, 3 percent;
    d. from middistal phalynx, distal, 1.5 percent;
    15. amputation of little finger:
    a. at metacarpophalangeal joint or with resection of
    metacarpal bone or through proximal phalynx, 3 percent;
    b. at proximal interphalangeal joint or through middle
    phalynx, 2 percent;
    c. at distal interphalangeal joint to middistal
    phalanx, 1 percent;
    d. from middistal phalynx, distal, 0.5 percent.
    8 MCAR S 1.9009 [Temporary] Musculo-skeletal schedule; sensory
    loss, upper extremities.
    A. General. For sensory loss to the upper extremities
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resulting from nerve injury, the disability of the whole body is
set forth in $B .-D$. For the portion of the body described in B.,
there must be a total loss of the sensory function.
B. Sensory loss, complete:
1. median function at wrist, 22.5 percent;
2. Ulnar function at wrist, 11 percent;
3. radial function at wrist., 5.5 percent;
4. medial antebrachial cutaneous, 3 percent;
5. medial brachial cutaneous, 3 percent;
6. loss of thumb, whole, 11 percent;
a. radial digital nerve, 4 percent;
b. ulnar digital nerve, 6.5 percent;
7. index finger, whole, 5.5 percent;
a. radial digital nerve, whole, 3.5 percent;
b. ulnar digital nerve, 2 percent;
8. long finger, whole, 5.5 percent;
a. radial digital nerve, 3.5 percent;
b. ulnar digital nerve, 2 percent;
9. ring finger, whole, 3 percent;
a. radial digital nerve, 2 percent;
b. Ulnar digital nerve, 1 percent;
10. little finger, whole, 3 percent;
a. radial digital nerve, 1 percent;
b. ulnar digital nerve, 2 percent;
11. sensory loss distal to proximal interphalangeal
joint, 50 percent of the value of entire digital nerve as set
forth in B., either radial or ulnar as applicable;
12. sensory loss distal to one-half distal phalanx, 25
percent of entire digital nerve as set forth in $B$.
C. Quality of sensory loss in the hand. The levels of
sensory loss and the corresponding disabilities of the whole
body are measured as follows:
1. minimal, 2-point discrimination at 6 millimeters or
less, 0 percent;
2. moderate, 2-point discrimination greater than 6
millimeters, $1 / 2$ of value in. B.;
3. severe, 2-point discrimination at greater than 10 millimeters, $3 / 4$ of value in B.;
4. total, 2-point discrimination at greater than 15 millimeters, same value as in B.
D. Causalgia. When objective medical evidence shows persistent causalgia despite treatment, there is loss of sensory and motor function, loss of joint function, and inability to use the extremity in any useful manner. The permanent partial disability to the member, rating from the most proximal joint involved, and the percentage disability of the whole body is 50 percent of that set forth in 8 MCAR S 1.9008 [Temporary] A.1.-15.

8 MCAR S 1.9010 [Temporary] Musculo-skeletal schedule; motor loss or motor and sensory loss, upper extremities.
A. Total or complete loss. Total or complete loss means that motor function is less than anti-gravity and there is complete loss of sensation. For loss to the lower extremities resulting from nerve injury, and where there is total loss of function for those particular portions of the body, the disability of the whole body is:

1. Motor loss, complete:
a. median nerve above mid forearm, 30 percent;
b. median nerve below mid forearm, 19 percent;
c. radial nerve, 19 percent;
d. ulnar nerve above mid forearm, 19 percent;
e. ulnar nerve below mid forearm, 13.5 percent.
2. Complete motor and sensory loss:
a. median nerve above mid forearm, 40.5 percent;
b. median nerve below mid forearm, 35 percent;
c. radial nerve, 27 percent;
d. ulnar nerve above mid forearm, 21.5 percent;
e. ulnar nerve below mid forearm, 16 percent.
3. Complete loss of motor function:
a. brachial plexus complete, 60 percent:
(1) upper trunk C5-6, 47 percent;
(2) mid trunk C7, 23 percent;
(3) lower trunk C8-T1, 46 percent;
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            b. anterior thoracic, 3 percent;
            c. axillary nerve, 23 percent;
            d. dorsal scapular, 3 percent;
            e. long thoracic, }9\mathrm{ percent;
            f. musculo cutaneous, 17.5 percent;
            g. subscapular, 3 percent;
            h. suprascapular, 11.5 percent;
            i. thoraco dorsal, }6\mathrm{ percent.
            4. Complete loss of function, motor and sensory:
            a. C-5 root, 11 percent;
            b. C-6 root, }12\mathrm{ percent;
            c. C-7 root, 11 percent;
            d. C-8 root, }13\mathrm{ percent.
    B. Partial loss. Partial loss means that motor function is
less than normal but greater than anti-gravity, and there is
incomplete sensory loss. Partial loss is rated at }25\mathrm{ percent of
the percentages assigned at A.1.,4.
8 MCAR S 1.9011 [Temporary] Musculo-skeletal schedule; shoulder.
    A. General. For permanent partial disability to the
shoulder, disability of the whole body is as set forth in B.-C.:
    B. Range of motion:
    1. total ankylosis in optimum position, abduction }6
degrees, flexion ten degrees, rotation, neutral position, }3
percent;
2. total ankylosis in mal-position, grade upward to 50 percent;
3. mild limitation of motion: no abduction beyond 90 degrees, rotation no more than 40 degrees with full flexion and extension, 3 percent;
4. moderate limitation of motion: no abduction beyond 60 degrees, rotation no more than 20 degrees, with flexion and extension limited to 30 degrees, 12 percent;
5. severe limitation of motion: no abduction beyond 25 degrees, rotation no more than ten degrees, flexion and extension limited to 20 degrees, 30 percent;
C. Procedures or conditions:
```

I. acromio-clavicular separation of the following severity:
a. grade 1,0 percent;
b. grade 2,3 percent;
c. grade 3,6 percent.
2. anterior or posterior shoulder dislocation, no surgery, single episode, 3 percent.
3. recurrent đislocation, at least three times in six months, 10 percent.
4. repair recurrent shoulder dislocation, no loss of motion, 6 percent.
5. resection distal end of clavicle, 3 percent.
6. humeral shaft fracture, normal range of motion both joints, 0 percent.
7. humeral shaft fracture, open reduction, mild restriction of shoulder and elbow motion, 6 percent.
8. surgical neck fracture, healed, mild loss of motion, 0 percent.
9. greater tuberosity fracture, mild loss of motion, mild pain on abduction, 2 percent.

8 MCAR S 1.9012 [Temporary] Musculo-skeletal schedule; elbow.
A. General. Permanent partial disability of the elbow is disability of the whole body as set forth in B. -C .
B. Range of motion. Flexion and extension of forearm is 85 percent of the arm. Rotation of the forearm is 15 percent of the arm.

1. Total ankylosis in optimum position approximating midway between 90 degrees flexion and 180 degrees extension, a 45-degree angle, 30 percent.
2. Total ankylosis in mal-position, 40 percent.
3. Limitation of motion:
a. mild, motion limited from ten degrees flexion to 100 degrees of further flexion, 6 percent;
b. moderate, motion limited from 20 degrees flexion to 75 degrees of further flexion, 12 percent;
c. severe, motion limited from 45 degrees flexion to
```
90 degrees of further flexion, 21 percent;
    4. Flail elbow, pseudarthrosis above joint line, wide
```

motion but very unstable, 39 percent.
5. Resection head of radius, 9 percent.
C. Procedures or conditions:
1. radial or ulnar shaft fracture, full motion, 0 percent;
2. radial or ulnar fracture, open reduction, mild
limitation of motion as defined in B.3., 9 percent;
3. Olecranon fracture, no loss of motion, 0 percent;
4. olecranon fracture, open reduction internal fixation,
mild limitation of motion as defined in B. 3 ., 6 percent;
5. epicondylar fracture, no loss of motion, 0 percent;
6. epicondylar fracture, mild loss of motion as defined
in $B .3 ., 6$ percent;
7. release medial or lateral epicondyle, 2 percent;
8. Ulnar nerve transposition, 2 percent.
8 MCAR S 1.9013 [Temporary] Musculo-skeletal schedule; wrist.
A. General. Permanent partial disability of wrist is
disability of the whole body as set in B. - C.
B. Range of motion:
1. excision distal end of ulna, flexion and extension
credited with 75 percent of hand, and rotation 25 percent of
hand, 5 percent;
2. total ankylosis in optimum position, 19 percent;
3. total ankylosis in mal-position of extreme flexion or
extension, 25 percent;
4. Iimitation of motion:
a. mild, rotation normal, loss of 15 degrees palmar
flexion and loss of 20 degrees dorsiflexion, 5 percent;
b. moderate, rotation limited to 60 degrees in
pronation-supination, loss of 25 degrees palmar flexion, loss of
30 degrees dorsiflexion, 10 percent;
c. severe, rotation limited to 30 degrees in
pronation-supination, palmer flexion less than 25 degrees,
dorsi-flexion less than 30 degrees, 15 percent.
C. Procedure or conditions.

1. Colles/Smith, extraarticular:
a. no loss of motion, 0 percent;
b. mild loss of motion as defined in B.4.a., 3 percent.
2. Colles/Smith/Barton, intraarticular.
a. no loss of motion, 0 percent;
b. mild loss of motion as defined in B.4.a., 6 percent;
c. moderate loss of motion as defined in B.4.b., 10
percent.
3. Carpal bone fracture, no loss of motion, 3 percent.
4. Carpal dislocation, mild loss of motion as defined in B.4.a., 6 percent.
5. Carpal tunnel release, 0.5 percent.
6. Carpal tunnel release with moderate paresthesias, 3
percent.
7. Dequervain's release, 0 percent.
8. Ganglion excision, 0 percent.
9. Scaphoid graft, 3 percent.

8 MCAR S 1.9014 [Temporary] Musculo-skeletal schedule, fingers.
A. General. Permanent partial disability of fingers is a disability of the whole body as set forth in B. C.
B. Ankylosis of joints.

1. Any digit, excluding the thumb.
a. Total ankylosis of distal interphalangeal joint:
(1) optimum position, 4 percent;
(2) mal-position, flexed 35 degrees or more, 5
percent.
b. Total ankylosis of proximal interphalangeal joint:
(1) optimum position, flexed 25 to 40 degrees, 8
percent;
(2) mal-position, any position other than (1) above, 9 percent.
c. Total ankylosis of both distal and proximal
interphalangeal joints. If total ankylosis of distal and proximal interphalangeal joints occurs, calculate disability according to a., and then add $c$. (1) or (2) as appropriate:
(1) optimum position, 1 percent;
(2) mal-position, 2 percent.
d. Total ankylosis metacarpophalangeal joint:
(1) optimum position, $35-50$ degree flexion; 0.5
percent;
(2) mal-position, any position other than (1), 1
percent.
e. Total ankylosis both interphalangeal joints and metacarpophalangeal joint, add an additional 2 percent.
2. Thumb.
a. Total ankylosis interphalangeal joint:
(1) optimum position, 0 to 15 degrees, 1 percent;
(2) mal-position, flexion greater than 15 degrees, 2
percent.
b. Total ankylosis metacarpophalangeal joint:
(1) optimum position, up to 25 degree flexion, 1
percent;
(2) mal-position, flexion greater than 25 degrees, 2 percent.
c. Total ankylosis both interphalangeal and metacarpophalangeal joints:
(1) optimum position, 4 percent;
(2) mal-position, 5 percent.
d. Total ankylosis carpometacarpal joint alone:
(1) optimum position, 4 percent;
(2) mal-position, 8 percent.
e. Total ankylosis interphalangeal, metacarpophalangeal, and carpometacarpophalangeal joints:
(1) optimum position, 21 percent;
(2) mal-position, 23 percent.
3. Limitation of motion, fingers and thumb:
a. mild, total closing motion tip of digit, can flex to touch palm and thumb, and extend to 15 degrees flexion, strength of grip normal, 3 percent;
b. moderate, total closing motion, tip of digit, lacks $1 / 2$ inch of touching palm and can extend to 30 degrees flexion, 6 percent;
c. severe, total closing motion tip of digit lacks one inch of touching palm and can extend to 45 degrees flexion, 9 percent;
d. soft tissue loss, isolated soft tissue loss of the end of digit, 20 percent of the disability to the whole body for amputation of that digit as set forth at 8 MCAR S 1.9009 [Temporary] A. 1. -19 .
B. Procedures or conditions:
4. release of trigger finger or thumb, 0 percent;
5. release of Guyon's Canal, 0 percent;
6. Boutonniere repair, 3 percent;
7. extensor tendon repair, 0 percent.

8 MCAR S 1.9015 [Temporary] Musculo-skeletal schedule;
amputations of lower extremities.
For permanent partial disability due to amputation of lower extremities the disability of the whole body is:

1. hemipelvectomy, 50 percent;
2. disarticulation at hip joint, 40 percent;
3. amputation above knee joint with short thigh stump, 3
inch or less below tuberosity of ischium, 40 percent;
4. amputation above knee joint with functional stump, 36
percent;
5. disarticulation at knee joint, 36 percent;
6. amputation below knee joint with short stump, 3 inch or less below intercondular notch, 36 percent;
7. amputation below knee joint with functional stump, 28 percent;
8. amputation at ankle, Syme type, 28 percent;
9. partial amputation of foot, Chopart's type, 21 percent;
10. mid-metatarsal amputation, 14 percent;
11. amputation of all toes at metatarsophalangeal joints, 8 percent;
12. amputation of great toe:
a. with resection of metatarsal bone, 8 percent;
b. at metatarsophalangeal joint, 5 percent;
c. at interphalangeal joint, 4 percent;
13. amputation of lesser toe, $2 \mathrm{nd}-5 \mathrm{th}$ :
a. with resection of metatarsal bone, 2 percent;
b. at metatarsophalangeal joint, 1 percent;
c. at proximal interphalangeal joint, 0 percent;
d. at distal interphalangeal joint, 0 percent.

8 MCAR S 1.9016 [Temporary] Musculo-skeletal schedule; nerve
injury or motor and sensory loss, lower extremities.
A. Total loss. Total loss means that motor function is less than anti-gravity and there is complete loss of sensation. For loss to the lower extremities resulting from nerve injury, and where there is total loss of function for those particular portions of the body, the disability of the whole body is:

1. femoral, anterior crural, 13 percent;
2. femoral, anterior crural, below iliacus nerve, 11
percent;
3. genitofemoral, genito crural, 2 percent;
4. inferior gluteal, 9 percent;
5. lateral femoral cutaneous, 3 percent;
6. posterior cutaneous of thigh, 2 percent;
7. superior gluteal, 7 percent;
8. Sciatic, above hamstring innervation, 31 percent;
9. common peroneal, lateral, or external popliteal, 13
percent;
10. deep peroneal, above midshin, 9 percent;
11. deep peroneal, below midshin, anterior tibial, 2
percent;
12. superficial peroneal, 5 percent;
13. tibial nerve, medial, or internal popliteal:
a. above knee, 15 percent;
b. posterior tibial, midcalf and knee, ll percent;
C. below midcalf, 9 percent;
d. lateral plantar branch, 3 percent;
e. medial plantar branch, 3 percent;
14. sural, external saphenous, 1 percent;
15. L-4 nerve root, 11 percent;
16. $L-5$ nerve root, 13 percent;
17. S-1 nerve root, 15 percent;
18. Lumbosacral plexus, 40 percent.
B. Partial loss. Partial loss means that motor function is less than normal but greater than anti-gravity, and there is incomplete sensory loss. Partial loss is rated at 25 percent of the percentages assigned at A. $1 .-18$.

8 MCAR S 1.9017 [Temporary] Musculo-skeletal schedule; joints.
A. General. For permanent partial disability of joints, disability of the whole body is set forth in B. -I.
B. Surgical or traumatic shortening of lower extremity.

1. $1 / 4$ inch to $3 / 4$ inch, 3 percent;
2. $3 / 4$ to $1-1 / 4$ inches, 4.5 percent;
3. $1-1 / 4$ to $1-3 / 4$ inches, 6 percent;
4. $1-3 / 4$ inches and above, 9 percent;
C. Hip.
5. range of motion.
a. limitation of motion:
(1) mild, anterior posterior movement from 0 degree to 120 degree flexion, rotation and lateral motion, abduction, adduction free to 50 percent of normal, 6 percent;
(2) moderate, anterior posterior motion from 15
degrees flexion deformity to 110 degrees further flexion, rotation, lateral motion, abduction, and adduction free to 25 percent normal, 12 percent;
(3) severe, anterior posterior motion from 30
degrees flexion deformity to 90 degrees further flexion, 22 percent.
6. Procedures or conditions:
a. nonunion proximal femur fracture without reconstruction, 33 percent;
b. arthroplasty, able to stand at work and walk, motion 25 percent to 50 percent of normal, 18 percent;
c. total hip arthroplasty, normal result, 13 percent;
d. femoral endoprosthesis:
(1) minimal pain, near normal range of motion, able to walk unsupported, 15 percent;
(2) mild to moderate pain with weight bearing, motion 50 percent of normal, 20 percent; e. hip pinning for fracture.
(1) minimal pain, near normal range of motion, able to walk unsupported, 5 percent;
(2) mild to moderate pain, motion 50 percent of normal, 10 percent.
D. Femur:
7. shaft fracture, closed, healed, 0 percent;
8. femoral shaft fracture, open reduction, loss of less than 20 degrees of movement of any one plane of either the hip or the knee, no malalignment, 2 percent.
E. Knee:
9. Range of motion.
a. ankylosis and limited motion, total ankylosis
optimum position, 15 degrees flexion, 22 percent;
b. limitation of motion:
(1) mild, 0 degrees to at least 110 degrees flexion,

2 percent;
(2) moderate, 5 degrees to at least 80 degrees
flexion, 7 percent;
(3) severe, 5 degrees to at least 60 degrees
flexion, 15 percent;
(4) extremely severe, limited from 15 degrees flexion deformity with further flexion to 90 degree, 18 percent.
2. Procedures or conditions:
a. surgical removal of medial or lateral semilunar cartilage, no complications, 3 percent;
b. surgical removal both cartilages, 9 percent;
c. ruptured cruciate ligament, repaired or unrepaired:
(1) mild laxity, 3 percent;
(2) moderate laxity, 7 percent;
(3) severe laxity, 10 percent;
d. excision of patella, 9 percent;
e. plateau fracture, depressed bone elevated,
semilunar excised, 9 percent;

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    f. plateau fracture, undisplaced, 2 percent;
    g. supracondylar or intercondylar fracture, displaced,
7 percent;
    h. supracondylar or intercondylar fracture,
undisplaced, 2 percent;
    i. patella fracture, open reduction or partial
patellectomy, displaced, 5 percent;
    j. patella fracture, open reduction or partial
patellectomy, undisplaced, 2 percent;
    k. arthroscopy, O percent;
    1. repair collateral ligament, mild laxity, 2 percent;
    m. repair collateral ligament, moderate laxity, 4
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percent;
n. repair patellar dislocation, 5 percent;
0. total knee arthroplasty, flexion to 90 degrees,
extension to 0 degrees, 13 percent;
p. total knee unicondylar, 7 percent;
q. lateral retinacular release, 1 percent;
A. r. proximal tibial osteotomy, flexion to 90
degrees, extension to 0 degrees, 5 percent.
F. Tibia:
1. tibial shaft fracture, undisplaced, healed, normal
motion and alignment, 0 percent;
2. tibial shaft fracture, open reduction, loss of less
than 20 degrees of movement in any one plane in either the knee
or the ankle with full knee extension, no malalignment, 5
percent.
G. Ankle and foot.
1. Range of motion:
a. total ankylosis ankle and foot, pantalar
arthrodesis:
(1) in 10 degrees plantar flexion, 15 percent;
(2) mal-position 30 degrees plantar flexion, 20
percent;
b. ankylosis of foot, subtalar or triple arthrodesis
tarsal bones, ankle, normal motion, 7.5 percent;
(1) decreased motion, subtalar joint, 3.5 percent;
(2) ankylosis in mal-position, 8 percent;
c. ankylosis of tibia and talus, subtalar joints free, optimum position 15 degrees plantar flexion, 12 percent;
d. Iimitation of motion in the ankle:
(1) mild, motion limited from position of 90 degrees
right angle to 20 degrees plantar flexion, 3 percent;
(2) moderate, motion limited from position of 10
degrees flexion to 20 degrees plantar flexion, 6 percent;
(3) severe, motion limited from position of 20 degrees plantar flexion to 30 degrees plantar flexion, 12 percent.
2. Procedures or conditions:
a. achilles tendon rupture with treatment surgically or nonsurgically, able to stand on toes, 2 percent;
b. achilles tendon rupture with treatment surgically or nonsurgically, unable to sustain body weight on toes, 4 percent;
c. open reduction ankle:
(1) normal range of motion:
(a) medial malleolus only, 2 percent;
(b) lateral malleolus only, 2 percent;
(2) mild restriction on range of motion:
(a) medial and lateral malleolus, 4 percent;
(b) trimalleolar, 4 percent;
d. ankle, lateral ligament reconstruction, mild
laxity, normal range of motion, 2 percent.
H. Foot.

1. Range of motion:
a. ankylosis of tarsal metatarsal or mild tarsal
joints:
(1) normal position, 2.5 percent;
(2) mal-position, 5 percent;
b. Iimited motion in the foot:
(1) mild, limited motion with mild pain with weight bearing, no change in activities, 2.5 percent;
(2) moderate, limitation of motion with pain with weight bearing, no reduction in athletic or vigorous activities, 5 percent;
(3) severe, limitation of motion with pain with weight bearing, sedentary activities not affected, 10 percent;
2. Procedures or conditions:
a. calcaneal fracture, extra articular, pain with weight bearing, 6 percent;
b. calcaneal fracture, intra articular:
(1) mild limitation of motion as in $1 . b$. (1), 6
percent;
(2) moderate Iimitation of motion as in 1.b. (2), 12
percent;
(3) severe limitation of motion as in 1.b. (3), 18
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percent;
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c. avascular necrosis talus:
(1) mild limitation of motion as in l.b. (1), 6

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percent;
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(2) moderate Iimitation of motion as in 1.b. (2), 12 percent;
(3) severe limitation of motion as in l.b. (3), 18 percent;
d. tarsal fractures, healed, mild pain, 3 percent;
e. metatarsal fractures, healed, 0 percent;
f. phalyngeal fractures, healed, 0 percent.
I. Toes.

1. complete ankylosis of metatarsophalangeal joint, any toe, 3 percent;
2. complete ankylosis any toe, interphalangeal joint, optimum position semi-flexion, 1 percent.

8 MCAR S 1.9018 [Temporary] Respiratory system.
A. Evaluation procedures. The procedures used in evaluating permanent partial disability of the respiratory system shall include the following:

1. complete history and physical examination with special reference to cardiopulmonary symptoms and signs;
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    2. Chest roentgenography (posteroanterior in full
inspiration, posteroanterior in full expiration timed, three
seconds, lateral);
    3. hematocrit or hemoglobin determination;
    4. electrocardiogram;
    5. performance of the following tests of ventilation:
        a. one second forced expiratory volume (FEVI),
    expressed as a percentage of the normal values set forth in the
    A.M.A. Guides, pages 69 and 71;
    b. forced vital capacity (FVC), expressed as a
percentage of the normal values set forth in the A.M.A. Guides,
pages 70 and 72.
    6. diffusing capacity studies must be performed when
    complaints of dyspnea continue unabated in spite of forced
    spirometric measurement results above the cut-off limits.
    B. Measurement of respiratory loss of function. Table l
    shall be used to calculate the percentage of disability of the
    whole body due to permanent partial disability of the
    respiratory system.
```

                    TABLE 1
    | Forced Spirometry | Percent |
| :--- | :--- |
| Measurements | Disa- |
| $1 / 2$ (FEVI + FVC) | Dility |
| (Test three times) | Capacity* |
| Body |  |

Symptoms
When dyspnea
Not
0
Applicable
consistent Not less than 85
with the percent of normal
circumstances
of activity.

| Dyspnea does | 70 to 85 percent | Not |
| :--- | :--- | :--- |
| not occur at | of normal | Applicable |

```
rest and seldom
occurs during
the performance
of the usual
activities of
daily living.
Dyspnea does
not occur at
                                of normal
Usually }\quad3
                                    Not
                                Applicable
occur during
the usual
activities of
daily living.
Dyspnea occurs
                                    25 to 50 percent
4 0 \text { percent 60}
during
of normal
                                    or less of
activities such
                                    normal
as climbing
one flight of
stairs or
walking one
block on the
level.
Confined to Less than 25 percent < 20 percent }8
bed and
    of normal
or less of
oxygen
dependent.
                    50 to }70\mathrm{ percent
rest but does
```

Less than 25 percent
20 percent
85
or less of
normal

```
* The diffusing capacity studies must be performed when
complaints of dyspnea continue unabated in spite of forced spirometric measurement results above the cut-off limits set forth in Table 1.
C. Asthma. Asthma. which is not medically controllable and which requires at least six hospitalizations in 12 months, 25
```


## percent.

8 MCAR S 1.9019 [Temporary] Organic heart disease.
A. General. For permanent partial disability due to organic heart disease, the disability of the whole body is set forth in B.
B. Heart ratings. The following ratings may be applied only after a compilation of a patient's complete history and a physical examination. Testing must include chest $X$-ray and electrocardiogram. The testing may include echocardiography, exercise testing, and radionuclide studies.

The following table sets forth symptoms of organic heart disease. The percentage of disability of the whole body is determined by the symptoms present.

Organic Heart Disease Schedule
Percentage
Disability
of Whole
Body $\quad 10$ percent 30 percent 60 percent $\quad 85$ percent
Organic Present Present Present Present

Heart
Disease
Symptoms Not present Not present Not present Present at
at rest at rest

| Level of | No symptoms | No symptoms | Symptoms from | Worsening |
| :---: | :---: | :---: | :---: | :---: |
| activity | from usual | from usual | a one or more | of symptoms |
| causing | activities | activities | block walk or | with any |
| symptoms | of daily | of daily | from climbing | activity |
|  | living, | living | stairs. |  |
|  | including |  | Symptoms also |  |
|  | such |  | from |  |
|  | activities |  | activities |  |
|  | as stair- |  | of daily |  |
|  | or hill- |  | living |  |


| 2 |  | and walking |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 3 |  |  |  |  |  |
| 4 | Level | No symptoms | Symptoms | Symptoms | May be |
| 5 | of | from | from hill- | from | present |
| 6 | unusual | walking | or stair- | emotional | at rest |
| 7 | activity | quickly, | climbing, | stress, | or may |
| 8 | causing | recreation, | walking | walking | awaken |
| 9 | symptoms | hill- or | quickly, | quickly, | patient |
| 10 |  | stair- | arm-work, | and similar |  |
| 11 |  | climbing, | or | activities |  |
| 12 |  | arm-work, | recreation |  |  |
| 13 |  | and similar |  |  |  |
| 14 |  | activities |  |  |  |
| 15 |  |  |  |  |  |
| 16 | Signs of | No | No | Relieved by | Not usually |
| 17 | heart |  |  | therapy | relieved by |
| 18 | failure |  |  |  | therapy |
| 19 |  |  |  |  |  |
| 20 | Signs of | No | With | With mild | Rest or |
| 21 | symptoms |  | prolonged | exertion | nocturnal |
| 22 | of |  | or severe |  | symptoms |
| 23 | angina |  | exertion |  |  |
| 24 | 8 MCAR S 1.9020 [Temporary] Vascular disease affecting the |  |  |  |  |
| 25 extremities |  |  |  |  |  |
| 2627 | The following schedule shall be used to determine the |  |  |  |  |
|  | percentage of disability of the whole body for permanent partia |  |  |  |  |
| 27 28 | disability due to vascular disease. Permanent partial |  |  |  |  |
| 29 | disability from vascular disease affecting the extremities must |  |  |  |  |
| 30 | be rated according to the following classifications. The system |  |  |  |  |
|  | shall be used only after a complete history and physical |  |  |  |  |
| 31 32 | examination. The full evaluation shall include imaging |  |  |  |  |
| 33 | examination (X-ray with and without contrast, computer axial |  |  |  |  |
| 34 | tomograph | scanning, s | nography, r | ionuclide st | es) volume |
| 35 | studies, | r flow studi |  |  |  |
| 36 |  | Va | cular Disea | Schedule |  |

 trolled trolled
A. General. The following schedule is for the evaluation of permanent partial disability of the gastrointestinal tract. The evaluation must include a thorough history and physical examination. Additional studies, such as radiographic, metabolic, absorptive, endoscopic, and biopsy may be necessary to determine the functioning of these organs. Disability shall not be determined until after completion of all medically accepted diagnostic and therapeutic efforts. The percentages indicated in this schedule are the disability of the whole body for the corresponding class.

For evaluative purposes, the digestive tract has been divided into (1) the esophagus, stomach, duodenum, small intestine, and pancreas, (2) the colon and rectum, (3) the anus, and (4) the liver and biliary tract.
B. Upper digestive tract (esophagus, stomach, duodenum, small intestine, and pancreas).

1. Class 1, 2 percent.
a. Symptoms or signs of upper digestive tract disease are present or there is anatomic loss or alteration; continuous treatment is not required; and weight can be maintained at the desirable level; or
b. There are no complications after surgical procedures.
2. Class 2,15 percent. Symptoms and signs of organic upper digestive tract disease are present or there is anatomic loss or alteration; dietary restriction and drugs are required for control of symptoms, signs, or nutritional deficiency; and loss of weight below the desirable weight does not exceed 10 percent.
3. Class 3, 35 percent.
a. Symptoms and signs of organic upper digestive tract disease are present or there is anatomic loss or alteration; and dietary restrictions and drugs do not completely control symptoms, signs, or nutritional state; or
b. There is 10 to 20 percent loss of weight below the desirable weight and the weight loss is ascribable to a disorder
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of the upper digestive tract.
    4. Class 4, }65\mathrm{ percent.
```

a. Symptoms and signs of organic upper digestive tract disease are present or there is anatomic loss or alteration; and symptoms are not controlled by treatment; or
b. There is greater than a 20 percent loss of weight below the desirable weight and the weight loss is ascribable to a disorder of the upper digestive tract.
C. Colon and rectum.

1. Class 1, 2 percent:
a. signs and symptoms of colonic or rectal disease are infrequent;
b. Iimitation of activities, special diet, or medication is not required; no systemic manifestations are present and weight and nutritional state can be maintained at a desirable level; or
c. there are no complications after surgical procedures.
2. Class 2, 15 percent. There is objective evidence of colonic or rectal disease or anatomic loss or alteration. There are mild gastrointestinal symptoms with intermittent disturbance of bowel function, accompanied by periodic or continual pain. Minimal restriction of diet or mild symptomatic therapy may be necessary. No impairment of nutrition results.
3. Class 3,30 percent. There is objective evidence of colonic or rectal disease or anatomic loss or alteration; there are moderate to severe exacerbations with disturbance of bowel habit, accompanied by periodic or continual pain; restriction of activity, special diet and drugs are required during attacks; and there are constitutional manifestations such as fever, anemia, or weight loss.
4. Class 4, 50 percent. There is objective evidence of colonic and rectal disease or anatomic loss or alteration; there are persistent disturbances of bowel function present at rest with severe persistent pain; complete limitation of activity, continued restriction of diet, and medication do not entirely
control the symptoms; there are constitutional manifestations such as fever, weight loss, or anemia present; and there is no prolonged remission.
D. Anus.
5. Class 1, 2 percent. Signs of organic anal disease are present or there is anatomic loss or alteration; or there is mild incontinence involving gas or liquid stool; or anal symptoms are mild, intermittent, and controlled by treatment.
6. Class 2, 12 percent. Signs of organic anal disease are present or there is anatomic loss or alteration; and moderate but partial fecal incontinence is present requiring continual treatment; or continual anal symptoms are present and incompletely controlled by treatment.
7. Class 3,22 percent.
a. Signs of organic anal diseases are present and
there is anatomic loss or alteration; and complete fecal
incontinence is present; or
b. Signs of organic anal disease are present and severe anal symptoms are unresponsive or not amenable to therapy.
E. Liver and biliary tract.
8. Class 1,5 percent.
a. There is objective evidence of persistent liver disease even though no symptoms of liver disease are present; and no history of ascites, jaundice, or bleeding esophageal varices within five years; nutrition and strength are normal; and biochemical studies indicate minimal disturbance of the liver function; or
b. Primary disorders of bilirubin metabolism are present.
9. Class 2, 20 percent. There is objective evidence of chronic liver disease even though no symptoms of liver disease are present; and no history of ascites, jaundice, or bleeding esophageal varices within five years; nutrition and strength are normal; and biochemical studies indicate more severe liver damage than Class 1.
10. Class 3,40 percent. There is objective evidence of
progressive chronic liver disease, or history of jaundice, ascites, or bleeding esophageal or gastric varices within the past year; nutrition and strength may be affected; and there is intermittent ammonia and meat intoxication.
11. Class 4, 75 percent. There is objective evidence of progressive chronic liver disease, or persistent ascites or persistent jaundice or bleeding esophageal or gastric varices, with central nervous system manifestations or hepatic insufficiency; and nutrition state is below normal.
F. Biliary tract.
12. Class 1,5 percent. There is an occasional episode of biliary tract dysfunction.
13. Class 2, 20 percent. There is recurrent biliary tract impairment irrespective of treatment.
14. Class 3, 40 percent. There is irreparable obstruction of the bile tract with recurrent cholangitis.
15. Class 4, 75 percent. There is persistent jaundice and progressive liver disease due to obstruction of the common bile duct.

8 MCAR S 1.9022 [Temporary] Reproductive and urinary tract schedule.
A. General. This rule sets forth the percentage of disability of the whole body for permanent partial disability of the reproductive and urinary systems. The percentages indicated in this schedule are the disability of the whole body for the corresponding class.
B. Evaluative procedures. For evaluative purposes the reproductive and urinary systems are divided into the: (1) upper urinary tract, (2) bladder, (3) urethra, (4) male reproductive organs, and (5) female reproductive organs.

Procedures for evaluating permanent partial disability of the genitourinary and reproductive systems shall include:

1. a complete history and physical examination with special reference to genitourinary/reproductive symptoms and signs, including psychological evaluation when indicated by the symptoms;
2. laboratory tests to identify the presence or absence of associated disease. The tests may include multi-channel chemistry profile, complete blood count, complete urinalysis, including microscopic examination of centrifuged sediment, chest X-ray, both posterior/anterior and left lateral views, electrocardiogram, performance of a measurement of total renal functions--endogenous creatinine clearance corrected for total body surface area. Other tests may include:
a. kidney function tests, such as arterial blood gases and determinations of other chemistries that would reflect the metabolic effects of decreased kidney function;
b. special examinations such as cystocopy, voiding cystograms, cystometrograms; and
c. a description of the anatomy of the reproduction or urinary system.
C. Upper urinary tract.
3. Solitary kidney, 10 percent. This category shall apply only when a solitary kidney is the only upper urinary tract permanent partial disability. When a solitary kidney occurs in combination with any one of the following four classes, the disability rating for that class shall be increased by 10 percent.
4. Class 1, 5 percent. Diminution of kidney function as evidenced by a creatinine clearance of 50 to 70 percent of age and sex adjusted normal values, other underlying causes absent.
5. Class 2, 22 percent. Diminution of the upper urinary tract function as evidenced by a creatinine clearance of 40 to 50 percent of age and sex adjusted normal values, no other underlying disease.
6. Class 3,47 percent. Diminution of upper urinary tract function, as evidenced by creatinine clearance of 25 to 40 percent of age and sex adjusted normal values.
7. Class 4, 77 percent. Diminution of upper urinary tract function as evidenced by creatinine clearance below 25 percent of age and sex.adjusted normal values.
D. Bladder.
8. Class 1, 5 percent. Symptoms and signs of bladder disorder requiring intermittent treatment, but without evidence of intervening malfunction between periods of treatments or symptomatology.
9. Class 2, 15 percent. Symptoms and signs of bladder disorder requiring continuous treatment, or there is bladder reflex activity but loss of voluntary control.
10. Class 3,20 percent. Poor reflex activity evidenced by intermittent dribbling, and no voluntary control.
11. Class 4, 30 percent. Continuous dribbling.
E. Urethra.
12. Class 1, 2 percent. Symptoms and signs of urethral disorder are present which require intermittent therapy for control.
13. Class 2,15 percent. Symptoms and signs of urethral disorder that cannot be effectively controlled by treatment.
F. Penis.
14. Class 1, 10 percent. Impaired sexual function but vaginal penetration is possible.
15. Class 2, 20 percent. Impaired sexual function and vaginal penetration is not possible.
G. Testes, epididymides, and spermatic cords
16. Class 1,5 percent.
a. Symptoms and signs of testicular, epididymal, or spermatic cord disease are present and there is anatomic alteration; and
b. Continuous treatment is not required; and
c. There are no abnormalities of seminal or hormonal
functions; or
d. Solitary teste is present.
17. Class 2, 10 percent.
a. Symptoms and signs of testicular, epididymal or spermatic cord disease are present and there is anatomic alteration; and
b. Frequent or continuous treatment is required; and
c. There are detectable seminal or hormonal
abnormalities.
18. Class 3, 20 percent. Trauma or disease produces bilateral anatomical loss or there is no detectable seminal or hormonal function of testes, epididymides, or spermatic cords.
H. Prostate and seminal vesicles.
19. Class 1,5 percent.
a. there are symptoms and signs of prostatic or seminal vesicular dysfunction or disease;
b. anatomic alteration is present; and
c. continuous treatment is not required.
20. Class 2, 10 percent.
a. frequent severe symptoms and signs of prostatic or seminal vesicular dysfunction or disease are present; and
b. anatomic alteration is present; and
c. continuous treatment is required.
21. Class 3, 20 percent. There has been ablation of the prostate or seminal vesicles.
I. Vulva and vagina.
22. Class 1 , 10 percent. Impaired sexual function but penile containment is possible.
23. Class 2, 20 percent. Impaired sexual function and penile containment is not possible.
J. Cervix and uterus.
24. Class 1, 5 percent.
a. Symptoms and signs of disease or deformity of the cervix or uterus are present which do not require continuous treatment; or
b. Cervical stenosis, if present, requires no treatment; or
c. There is anatomic loss of the cervix or uterus in the postmenopausal years.
25. Class 2, 10 percent.
a. Symptoms and signs of disease or deformity of the cervix or uterus are present which require continuous treatment; or
b. Cervical stenosis, if present, requires periodic

## treatment.

3. Class 3, 20 percent.
a. Symptoms and signs of disease or deformity of the cervix or uterus are present which are not controlled by treatment; or
b. Cervical stenosis is complete; or
c. Anatomic or complete functional loss of the cervix or uterus occurs in premenopausal years.
K. Fallopian tubes and ovaries.
4. Class 1, 5 percent.
a. Symptoms and signs of disease or deformity of the fallopian tubes or ovaries are present which do not require continuous treatment; or
b. Only one fallopian tube or ovary is functioning in the premenopausal years.
5. Class 2 , 10 percent. Symptoms and signs of disease or deformity of the fallopian tubes or ovaries are present which require continuous treatment, but tubal patency persists and ovulation is possible.
6. Class 3, 20 percent.
a. Symptoms and signs of disease or deformity of the fallopian tubes or ovaries are present and there is total loss of tubal patency or total failure to produce ova in the premenopausal years; or
b. Bilateral loss of the fallopian tubes or ovaries occurs in the premenopausal years.

8 MCAR S 1.9023 [Temporary] Skin disorders.
Permanent partial disability resulting from skin disorders are a disability of the whole body as set forth in this rule. This schedule is based upon the effect of the disorder on the ability to function and perform activities of daily living and the degree of treatment required for the disorder. The schedule is not based upon the location or the percentage of the body affected by a specific skin disorder. Impairment due to burns shall be rated under 8 MCAR $S 1.9024$ and not under this schedule.

1. Class 1, 2 percent. Signs or symptoms of skin
disorder are present and supported by objective skin findings. With treatment there is no or minimal limitation in the performance of the activities of daily living, although certain physical or chemical agents might temporarily increase the extent of limitation.
2. Class 2, 10 percent. Signs and symptoms of skin disorder are present and intermittent treatment is required. There is limitation in the performance of some of the activities of daily living.
3. Class 3,20 percent. Signs and symptoms of skin disorder are present. Continuous treatment is required. There is limitation in the performance of many of the activities of daily living.
4. Class 4, 45 percent. Signs and symptoms of skin disorder are present. Continuous treatment is required which may include periodic confinement at home or other domicile. There is limitation in the performance of many of the activities of daily living.
5. Class 5, 70 percent. Signs and symptoms of skin disorder are present. Continuous treatment is required which necessitates confinement at home or other domicile. There is severe limitation in the performance of nearly all of the activities of daily living.

8 MCAR S 1.9024 [Temporary] Burns.
A. General. The whole body disability due to burns is not equal to the percent of body surface area which is burned. The percentage of body surface area affected must be determined according to Lund and Browder. The ratings determined under A.-D. must be combined as set forth at Minnesota Statutes, section 176.105 , subdivision 4 , clause ( $c$ ), provided that the maximum disability to the whole body under this schedule must not exceed 70 percent. Loss of motion or body parts except the face must be rated under the musculoskeletal schedules and must not be considered as included in a rating under this rule unless specifically provided otherwise.
B. Burns other than electrical conduction. A rating under
this section is the ratings assigned by the following paragraphs combined as provided in Minnesota Statutes, section 176.105, subdivision 4 , clause (c):

1. Any burn that heals within one month and leaves no hypertrophic scar, 0 percent.
2. Cold intolerance of the hands, face, or head as evidenced by the wearing of heavy gloves or additional scarves at 35 degrees Fahrenheit, 10 percent.
3. Heat intolerance is evidenced by fatigue, malaise, nausea, and an oral temperature of at least 100 degrees Fahrenheit upon exposure to an environmental temperature of 90 degrees Fahrenheit at 60 percent. relative humidity, 5 percent.
4. Sensitivity to sun exposure as evidenced by the need to cover the skin or use sun screen to prevent sunburn, 10 percent.
5. Sensitivity to dust, chemical, or petroleum exposure; altered sweating; or apocrine gland dysfunction. For one or any combination of these conditions, the whole body disability is:
a. If the sensitivity affects less than 5 percent of the body surface area, 0 percent.
b. If the sensitivity affects 5 to 20 percent of the body surface area, 2 percent.
c. If the sensitivity affects 20 percent or more of the body surface area, 3 percent.
6. Sensory loss due to burns:
a. Loss of sensation on palmar surface of hands shall
be rated as provided by 8 MCAR S 1.9009 C.
b. Sensory loss in less than 5 percent of the body
surface area, 0 percent.
c. Sensory loss in 5 to 20 percent of the body surface area, 2 percent.
d. Sensory loss in more than 20 percent of the body surface area, 5 percent.
C. Electrical conduction injuries.
7. Associated sensory loss and concommitant thermal
injuries must be rated as provided in A.
8. Peripheral nerve deficits must be rated as provided in the musculoskeletal schedule.

The ratings under 1. and 2. must be combined in the manner set forth at Minnesota Statutes, section 176.105 , subdivision 4 , clause (c).
D. Cosmetic disfigurement. This section applies to disfigurement on the face, the head, the neck, or the hands due to burns. Where there is surgery, this rating is done after correction by plastic surgery. The final rating under this schedule shall not be done until hypertrophic scarring is matured or more than 24 months after the injury. The ratings under the paragraphs of this section must be combined in the manner set forth at Minnesota Statutes, section 176.105, subdivision 4, clause (c).

1. Face. The face is the anterior head from the forehead, to and including the chin.
a. Loss of facial features:
(1) Deformity of nasal tip or deformity, thinning, or eversion of ala nasi, 5 percent.
(2) Loss of more than 50 percent of nasal cartilage or of both ala nasi, 25 percent.
b. Eyes:
(1) Loss of one eyebrow, 2.5 percent.
(2) Loss of two eyebrows, 5 percent.
(3) Ectropian unaccompanied by visual impairment:
(a) Lower lid pulled from eye when mouth is
opened and neck extended, 5 percent.
(b) Lower lid pulled away with no movement of
face or neck, 10 percent.
(c) Cornea unprotected when sleeping, 15 percent.
(4) Epiphora unaccompanied by visual impairment, 10
percent.
c. Mouth. A rating under this paragraph is the arithmetic sum of (1)-(4).
(1) Noncongenital microstomia or distortion
affecting eating and dental hygiene, 10 percent.
(2) Eversion of the upper lip, 7.5 percent.
(3) Eversion of the lower lip, 7.5 percent.
(4) Distortion of vermillion border, 10 percent.
d. Ear. Loss of 75 percent or more of one external ear, 5 percent.
e. Hypertrophic scarring of face in areas other than those covered in a.-d.:
(1) Affecting only forehead above the eyebrows, 10 percent.
(2) Affecting the lower face from eyebrows to chin, 25 percent.
(3) Affecting both the forehead above the eyebrows and the lower face from the eyebrows to chin, 35 percent.
f. Wrinkling of face in areas other than those covered in a.-e., one-third of percentages in $e$.
2. Head, Alopecia:
a. Anterior hairline:
(1) Loss of less than 20 percent of hair on anterior hairline, 0 percent.
(2) Loss of 20 to 50 percent of hair on anterior hairline, 2 percent.
(3) Loss of more than 50 percent of hair on anterior hairline, 3 percent.
b. Elsewhere on head and not affecting anterior hairline:
(1) Loss of 0 to 15 percent of hair, 0 percent.
(2) Loss of 15 to 30 percent of hair, 1 percent.
(3) Loss of 20 to 50 percent of hair, 2 percent.
(4) Loss of more than 50 percent of hair, 3 percent. The ratings under a. and b. must be combined as set forth in Minnesota Statutes, section 176.105 , subdivision 4 , clause (c).
3. Anterior neck. The anterior neck extends from the ear lobule anteriorally to the ear lobule and downward to mid clavicle. Disfigurement on the posterior neck from the ear lobule posteriorally to the ear lobule shall not be rated under
this rule. Ratings under a. and b. shall be combined as set forth in Minnesota Statutes, section 176.105 , subdivision 4, clause (c).
a. Hypertrophic scarring or banding:
(1) Affecting less than 10 percent of the anterior neck, 0 percent.
(2) Affecting 10 to 30 percent of the anterior neck, 10 percent.
(3) Affecting 30 to 50 percent of the anterior neck, 12 percent.
(4) Affecting more than 50 percent of the anterior neck, 15 percent.
b. Chin shelf. The chin shelf is the area from the chin backwards to the neck.
(1) Chin shelf extends less than 2 inches, 3 percent.
(2) Chin shelf extends less than 1 inch, 10 percent.
4. Hands. The hand extends from the carpus outward. Loss of body parts and loss of motion are rated in the musculoskeletal schedule.
a. Hypertrophic scarring affecting less than 30 percent of dorsum of one hand, 0 percent.
b. Hypertrophic scarring affecting 30 to 50 percent of dorsum of one hand, 3 percent.
c. Hypertrophic scarring affecting 50 percent or more of dorsum of one hand, 7 percent.

8 MCAR S 1.9025 [Temporary] Pre-existing impairments.
Where a disability is subject to apportionment under Minnesota Statutes, section 176.101 , subdivision $4 a$, the rating for the disabled condition under a category of the schedules of these rules must be reduced as provided in this rule. As used in this rule, the term disabled condition includes the pre-existing disability.
A. This section applies where the pre-existing disability has not been rated and neither B. nor C. is applicable.

1. The pre-existing disability must be rated under a category of the schedules of these rules.
2. The whole body disability rating assigned to the disabled condition of the member by the schedules of these rules must be reduced by the rating assigned to the pre-existing disability of the member in 1 .
3. For example, the medical report establishes a pre-existing impairment of amputation of the index finger at the metacarpophalangeal joint. This injury is a 13.5 percent pre-existing disability to the body as a whole under 8 MCAR $S$ 1.9008 [Temporary] A. 12.a. The disabled condition is amputation of all fingers except the thumb at the metacarpophalangeal joint, a 32.5 percent disability under 8 MCAR S 1.9008 A. 10 . 32.5 percent less 13.5 percent gives the disability (adjusted for the pre-existing impairment) of 19 percent. Payment is made for the 19 percent disability at the rate appropriate for a 32.5 percent disability. Thus, if economic recovery benefits are paid, 19 percent is multiplied by 680 weeks; for impairment benefits, 19 percent is multiplied by $\$ 85,000$.
B. This section applies where the pre-existing disability of a member has been rated in another proceeding or state and the rating represents a percentage of disability to the whole body. The rating of the disabled condition under a category of these schedules shall be reduced by the rating assigned to the pre-existing disability of the member.
C. This section applies where the injury producing the pre-existing disability occurred prior to January 1,1984 , and the pre-existing disability has been rated under Minnesota Statutes, section 176.101 , subdivision 3 ; or where Minnesota Statutes, chapter 176 is inapplicable and the rating represents a percentage of disability of a member.
4. From Table 1 , determine the maximum whole body disability assignable to the pre-existing disability. Use Table 2 where disability to an internal organ is rated as a percentage of disability to the particular organ rather than a percentage of disability to internal organs. Where the pre-existing disability is not listed in Table 1 or Table 2 , the maximum whole body disability is the maximum disability assigned to the
affected member by the schedules of 8 MCAR SS 1.9001-1.9024
[Temporary].
TABLE 1
Member Maximum Whole Body

Thumb $\quad 16$
Index finger $\quad 11$
Middle finger $\quad 9$
Ring finger $\quad \mathrm{L}$
Little finger 2
Great toe $\quad \square \quad 5$
Lesser toe $\quad 1$
Hand $\quad 54$
Hand and wrist $\quad 54$
Arm $\square \square \square \square \square \square$
Foot 21
Foot and ankle $\quad 28$
Leg $\quad 1 \quad \square, \square \square \square \square \square$
Eye $\quad \square \quad 24$
Eyes (both) $\quad 85$
Hearing loss (both ears) 35
Back 71
Voice 70
Burns and skin impairments, including disfigurement $\quad 70$

Internal organs,
excluding brain $\quad 85$
Brain $\quad 100$
Head $\quad 20$

TABLE 2

Member
Maximum Whole Body
Disability (Percent)

| Stomach | 65 |
| :--- | ---: |
| Pancreas | 65 |
| Colon, | 50 |
| Spleen | 0 |
| Bladder | 30 |
| Sexual organs or function | 20 |
| Circulatory system | 80 |
| Heart | 85 |
| Lungs | 85 |
| Liver | 75 |
| Solitary kidney | 10 |
| Kidney, excluding |  |
| solitary kidney |  |

2. Multiply the prior rating of the member's pre-existing disability by the maximum whole body disability determined in 1 . Where a disputed rating has been closed out to a stipulated rating but payments were made on a different rating, the rating for purposes of this rule is the closed-out rating.
3. Subtract the percentage amount determined in 2 . from the whole body disability rating assigned to the disabled condition of the member by the schedules of these rules. The remainder is the amount due for the disabled condition after apportionment for the pre-existing disability.
4. For example, a pre-1984 back injury was rated at 25 percent of the back. The whole body disability attributable to this injury is 25 percent by 71 percent equals 17.75 percent. After 1984, a second back injury is rated at 24.5 percent under these rules $(24.5$ percent minus 17.75 percent equals 6.75 percent). Six and three-fourths ( 6.75 ) percent is the amount assigned to the disabled condition after apportionment.
D. Where the pre-existing disability and the subsequent permanent partial disability affect more than one member, apportionment must be determined as follows:
5. For each member, determine the percentage of whole body disability under A. -C., as appropriate.

2 set forth in Minnesota Statutes, section 176.105 , subdivision 4, 3 clause (c). Prior to the next application of the formula, the

4 result of an application of the formula must be stated as a
5 decimal, not as a percentage, that is rounded up or down to four
6 decimal places.
7
8 Effective Date. Rules 8 MCAR SS 1.9001-1.9025 [Temporary] are
9 effective January 1,1984 .

