

5223.0030 EYE SCHEDULE.

Subpart 1. **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, subparts 2 to 6 shall be used.

Subp. 2. **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 inflammation 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 part.

Subp. 3. **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.

A. The maximum limit for each coordinate function is established in subitems (1) to (3):

(1) 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.

(2) 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.

(3) 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.

B. The minimum limit for each coordinate function is established in subitems (1) to (3):

(1) The minimum limit of central visual acuity is:

(a) for distance vision, 20/800 Snellen or A.M.A. chart; and

(b) for near vision, 14/560 A.M.A. card.

(2) 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.

(3) 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.

Subp. 4. Measurement of coordinate factors of vision and computation of partial loss.

A. 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.

(1) Table 1 shows the percentage of visual efficiency 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 or Snellen Reading for Distance	A.M.A. Card Reading for Near	Percentage of Central Visual Acuity Efficiency
20/20	14/14	100.00
20/25	14/17.5	95.7
20/25.7	.....	95.0
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	.....	45.0
20/120	14/84	40.9
.....	14/89	38.4
20/122.5	.....	40.0
20/137.3	.....	35.0
20/140	14/98	34.2
20/155	.....	30.0
20/160	14/112	28.6
20/175	.....	25.0
20/180	14/126	23.9
20/200	14/140	20.0
20/220	14/154	16.7
20/240	14/168	14.0

....	14/178	12.3
20/260	14/182	11.7
20/280	14/196	9.7
20/300	14/210	8.2
20/320	14/224	6.8
20/340	14/238	5.7
20/360	14/252	4.8
20/380	14/266	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

(2) 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.

(3) 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.

(4) The percentage of central visual acuity efficiency of the eye in question is determined as follows:

(a) Multiply by two the value determined for corrected near vision in subitem (3).

(b) Add the product obtained in unit (a) to the value determined for corrected distance vision in subitem (2).

(c) Divide the sum obtained in unit (b) 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:

$$\frac{70\% + (2 \times 25)}{3} = 40\% \text{ central visual acuity efficiency}$$

(5) For traumatic aphakia, the corrected central visual acuity efficiency of the eye is 50 percent of the central visual acuity efficiency determined in subitem (4). This subitem shall not apply if an adjustment for glasses or contact lenses pursuant to subpart 5, item B, subitem (2) or (3) results in a lower visual efficiency than would be given by application of this subitem.

(6) For traumatic pseudophakia, the corrected central visual acuity efficiency of the eye is 80 percent of the central visual acuity efficiency determined in subitem (4). This subitem shall not apply if an adjustment for glasses or contact lenses pursuant to subpart 5, item B, subitem (2) or (3) results in a lower visual efficiency than would be given by application of this subitem.

B. 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 144.

(1) 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.

(2) 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 subitem (1) shall be changed accordingly.

(3) 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.

C. Ocular motility shall be measured in all parts of the motor field with any useful correction applied.

(1) 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.

(2) Plot the test results on a motility chart as illustrated in the A.M.A. Guides, page 147.

(3) 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.

(4) 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.

Subp. 5. **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.

A. 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.

B. Visual efficiency shall be adjusted as set in this item. 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 subpart 4, item A, subitem (5) or (6).

(1) 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.

(2) 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.

(3) 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.

Subp. 6. **Procedure for determining whole body disability due to vision loss.** For each eye, subtract the percentage of visual efficiency determined in subpart 5 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.

- A. Multiply the percentage impairment of the better eye by three.
- B. Add the percentage impairment of the poorer eye to the product obtained in item A.
- C. Divide the sum obtained in item B by four.
- D. The quotient obtained in item C is the percentage impairment of the visual system. Fractions shall be rounded to the nearest whole number percentage as provided in subpart 4, item A, subitem (1).
- E. 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 of Visual System, Percent	Disability of Whole Body, Percent
0	0
1	1
2	2
3	3
4	4
5	5
6	6
7	7
8	8
9	8
10	9
11	10
12	11
13	12
14	13
15	14

16	15
17	16
18	17
19	18
20	19
21	20
22	21
23	22
24	23
25	24
26	25
27	25
28	26
29	27
30	28
31	29
32	30
33	31
34	32
35	33
36	34
37	35
38	36
39	37
40	38
41	39
42	40
43	41
44	42
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	59
64	60
65	61
66	62
67	63
68	64
69	65
70	66
71	67
72	68
73	69
74	70
75	71

76	72
77	73
78	74
79	75
80	76
81	76
82	77
83	78
84	79
85	80
86	81
87	82
88	83
89	84
90 - 100	85

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