

5223.0040 EAR SCHEDULE.

Subpart 1. **General.** For hearing loss, the maximum disability of the whole body is 35 percent. The procedures in subparts 2 to 7 shall be used to determine the extent of binaural hearing loss and of whole body disability.

Subp. 2. **Medical diagnosis.** Otological evaluation shall be the method for determining the degree of permanent partial hearing loss. The medical diagnosis shall include the following:

A. 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.

B. A complete physical examination of the ear.

C. An audiological evaluation which shall include pure tone air conduction and bone conduction testing.

Subp. 3. **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 subpart 2:

A. The audiometer used to measure hearing loss shall be calibrated to meet the specifications of ANSI S3.6-1969 (R1973), Specifications for Audiometers. The following are also required:

(1) biological or electroacoustical calibration checks of the audiometer shall be performed monthly;

(2) electroacoustical calibration shall be performed annually to certify the audiometer to the ANSI standard in this item; and

(3) the calibration records shall be preserved and shall be provided upon request.

B. Audiometric test rooms or booths shall meet the specifications of ANSI S3.1-1977, Criteria for Permissible Ambient Noise during Audiometric Testing.

Subp. 4. **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.

Subp. 5. **Procedure for determining disability of whole body due to hearing loss.**
The binaural hearing loss is determined as follows:

A. The calculation for the percent of binaural hearing loss consists of the following steps:

(1) For each ear, test the hearing threshold levels at the four frequencies of 500, 1,000, 2,000, and 3,000 Hertz.

(2) 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.

(3) 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.

(4) 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.

(5) Considering both ears, compare the monaural hearing losses as determined in subitem (4). The ear with the smaller monaural hearing loss is the better ear. The ear with the larger monaural hearing loss is the poorer ear.

(6) Multiply the monaural hearing loss of the better 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:

$$\frac{\begin{array}{l} \text{(monaural hearing} \\ \text{5 x loss of better ear)} \end{array} + \begin{array}{l} \text{(monaural hearing loss} \\ \text{of poorer ear)} \end{array}}{6} = \text{percent binaural hearing loss}$$

B. 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	45	60	85

a. Calculation of the average four-frequency hearing level:

$$\begin{aligned}\text{Right ear} &= \frac{15 + 25 + 45 + 55}{4} = \frac{140}{4} = 35 \text{ decibels} \\ \text{Left ear} &= \frac{30 + 45 + 60 + 85}{4} = \frac{220}{4} = 55 \text{ decibels}\end{aligned}$$

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%

d. Calculation of binaural hearing loss:

$$\frac{(15\% \times 5) + 45\%}{6} = 20 \text{ percent binaural hearing loss}$$

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.

$$\begin{aligned}\text{Right ear} &= \frac{20 + 25 + 30 + 35}{4} = 25 \text{ decibels} \\ \text{Left ear} &= \frac{30 + 45 + 60 + 85}{4} = 55 \text{ decibels}\end{aligned}$$

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 x 1.5 percent = 0

Left ear = 30 x 1.5 percent = 45 percent

d. Calculation of binaural hearing loss:

$$\frac{(0\% \times 5) + 45\%}{6} = 7.5 \text{ percent binaural hearing loss}$$

C. 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 Loss, Percent	Disability of Whole Body, 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
98.9 - 100.0	35

Subp. 6. **Presbycusis.** The calculation of the binaural hearing loss shall not include an additional adjustment for presbycusis.

Subp. 7. **Tinnitus.** No additional percentage of permanent partial disability for hearing loss shall be allowed for tinnitus.

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