

876—8.11(85B) Apportionment of age-related loss for occupational hearing loss claims.

8.11(1) *Effective date.* This rule is effective for claims for occupational hearing loss filed on or after July 1, 1998.

8.11(2) *Purpose.* The purposes of this rule are to adopt tables and the method for calculating age-related hearing loss and to adopt a worksheet for apportionment of age-related hearing loss for occupational hearing loss claims.

8.11(3) *Table.* In 1972 the National Institute for Occupational Safety and Health (NIOSH) published the Criteria for a Recommended Standard: Occupational Exposure to Noise (NIOSH Publication No.73-11001). Table B-1, page I-16, provides the Age Corrections Values to be Used for Age Correction of Initial Baseline Audiograms for Males and Table B-2, page I-17, provides the Age Corrections Values to be Used for Age Correction of Initial Baseline Audiograms for Females. These NIOSH tables are used to calculate the correction value for age for males and females for 500, 1000, 2000 and 3000 hertz.

For example, the age correction for a male 21 years of age is 10 decibels at 500 hertz, 5 decibels at 1000 hertz, 3 decibels at 2000 hertz and 4 decibels at 3000 hertz. The correction for age is 5.50 decibels (the sum of 10+5+3+4 divided by 4).

The following table is to be used to determine an employee's age-related change in hearing level during the period of employment. To determine the age-related change in hearing level in decibels during the period of employment, subtract the value shown in the table for the employee's age at the beginning of employment from the value shown in the table for the employee's age on the date of injury.

NOTE: This table should not be used to compute standard threshold shift as required by rules of the Occupational Safety and Health Administration or Iowa occupational safety and health administration.

<u>Age in Years</u>	<u>Correction in dB</u>	
	<u>Males</u>	<u>Females</u>
20 or younger	5.50	7.25
21	5.50	7.75
22	5.50	7.75
23	5.50	8.00
24	5.75	8.00
25	6.00	8.25
26	6.25	8.50
27	6.50	8.75
28	6.75	8.75
29	6.75	8.75
30	6.75	9.00
31	7.25	9.25
32	7.50	9.50
33	7.50	9.75
34	7.75	9.75
35	8.00	10.00
36	8.25	10.25
37	8.75	10.25
38	8.75	10.50
39	9.00	11.00
40	9.00	11.00
41	9.25	11.25
42	10.00	11.50
43	10.25	11.75
44	10.25	12.00
45	10.50	12.25
46	10.75	12.50
47	11.00	12.50
48	11.50	13.00
49	12.00	13.25

<u>Age in Years</u>	<u>Correction in dB</u>	
	<u>Males</u>	<u>Females</u>
50	12.25	13.50
51	12.25	13.75
52	12.75	13.75
53	13.25	14.25
54	13.50	14.50
55	14.00	15.00
56	14.25	15.00
57	14.50	15.25
58	15.25	15.75
59	15.50	16.00
60 or older	16.00	16.25

8.11(4) *Apportionment.* The apportionment of age-related hearing loss shall be made by reducing the total binaural percentage hearing loss as calculated pursuant to Iowa Code section 85B.9(3) by the same percentage as the decibels of age-related change in hearing level occurring during the period of employment bears to the total decibel hearing level in each ear.

Age-related hearing loss is apportioned using the results of the audiogram determined to be the proper audiogram for measurement of the employee's hearing loss on the date of injury by using the following steps:

1. Separately for each ear, compute the average of the employee's decibel hearing levels at 500, 1000, 2000, and 3000 hertz for that ear.
2. Separately for each ear, compute the percentage loss for each ear.
3. Compute the employee's age-related change in hearing level in decibels during the period of employment using the table in subrule 8.10(3).
4. Separately for each ear, divide the result of step 3 by the result of step 1 to compute the age-correction factor for that ear.
5. Separately for each ear, multiply the total percentage hearing loss in that ear calculated pursuant to Iowa Code section 85B.9 by the age-correction factor for that ear.
6. Separately for each ear, subtract the result obtained in step 5 from the total percentage hearing loss in that ear to obtain the age-corrected hearing loss for that ear.
7. Multiply the age-corrected hearing loss in the better ear as calculated in step 6 by 5 and add the percentage hearing loss in the worse ear.
8. Divide the result obtained in step 7 by 6 to obtain the age-corrected binaural percentage hearing loss.

8.11(5) Worksheet. The following worksheet is used to calculate the percentage of age-corrected binaural hearing loss.

APPORTIONMENT OF PERCENT HEARING LOSS FOR AGE		
Left Ear <u>Hearing Level</u>	Frequency <u>in Hertz</u>	Right Ear <u>Hearing Level</u>
1. _____	500	_____
2. _____	1000	_____
3. _____	2000	_____
4. _____	3000	_____
5. _____	total of lines 1 through 4	_____
divide by 4	(divide the "total" by 4)	divide by 4
6. _____	equals average equals	_____
minus 25	subtract "low fence"	minus 25
7. _____	equals "Excess"	_____
multiply by 1.5	multiply % factor	multiply by 1.5
8. _____	equals % loss each ear	_____
(% loss left ear)		(% loss right ear)
9. Age on date of injury	_____	
10. Age at beginning of employment	_____	
11. _____	correction for age on date of injury in dB from table minus	
12. _____	correction for age at beginning of employment in dB from table equals	
13. _____	age-related change in hearing level during employment in dB	
	<u>LEFT EAR</u>	<u>RIGHT EAR</u>
	Divide age-related change in hearing level from line 13 by average hearing level from line 6	
	To obtain	
14. _____	age correction factor multiply % loss from line 8 by age-correction factor from line 14	_____
	To obtain	
15. _____	deduction for age-correction subtract line 15 from line 8	_____
	To obtain	
16. _____	age-corrected percent hearing loss	_____
	<u>BINAURAL PERCENTAGE LOSS</u>	
17. _____	% loss better ear (smaller amount) from line 16, multiplied by 5 plus	
18. _____	% loss worse ear (larger amount) from line 16	
19. _____	equals divided by 6 equals	
20. _____	% age-corrected binaural hearing loss	

This rule is intended to implement Iowa Code sections 85B.9A and 86.8.
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