Designated Doctor Case-Based Webinar Module 5

Non – MSK MMI & IR

Disclaimer

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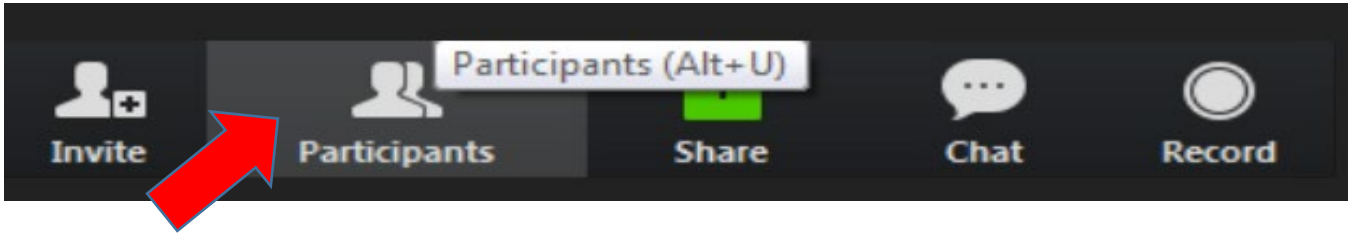
Housekeeping

At the bottom of your screen, click to turn on the participant list:



Ensure your name (not phone # or initials) is shown on the Participant List for CME and attendance purposes. If not, do the following to rename:

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Asking questions

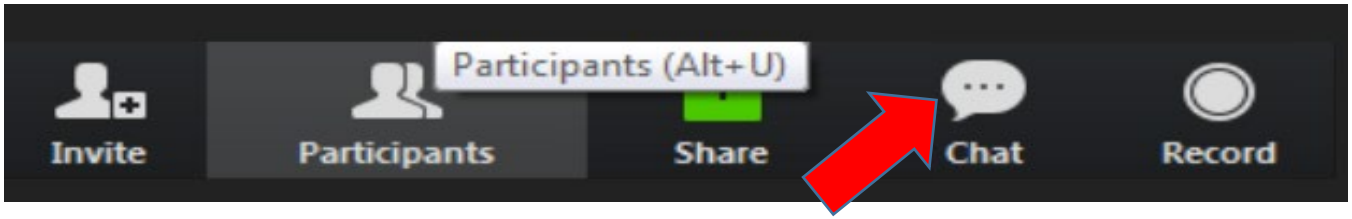
Please mute your phone/VOIP audio connection

All attendees will be muted during the presentation and submit questions via Chat

Attendees may be unmuted at the request of the monitor or instructor for clarification or further discussion

Asking questions

You will find the Chat feature to the right of the participants list.



As the instructor goes through the course they will ask for questions via chat at the end of a case, or after a concept has been explained.

You may type your questions into Chat. The Chat monitor may answer your question in Chat, or have the instructor answer the question verbally.

Non-Musculoskeletal MMI/Impairment Rating

Non-Musculoskeletal MMI/IR

Areas Covered:

- Chapter 5 – Respiratory system
- Chapter 8 – Visual system
- Chapter 9 – ENT & related structures (hearing)
- Chapter 10 – Digestive System (hernia)
- Chapter 13 – Skin (burn)

HOWEVER, you must understand the text and learn to use the tables in ALL the Non-MSK Chapters.

Non-Musculoskeletal Chapters How to Read the Tables

Tables listing classes of impairment in the non-MSK chapters list criteria for each class in several rows on the table.

- The criteria in the **first row** of a table should ALWAYS be present.
- When the table indicates "**AND**" between rows of criteria, BOTH of those two row's criteria must also be present
- When "**OR**" is between rows, the criteria for one or the other of those rows must be present

Activities of Daily Living

Glossary, page 317

Table. Activities of Daily Living, with Examples.

Activity	Example
Self-care, personal hygiene	Bathing, grooming, dressing, eating, eliminating
Communication	Hearing, speaking, reading, writing, using keyboard
Physical activity	*Intrinsic:* Standing, sitting, reclining, walking, stooping, squatting, kneeling, reaching, bending, twisting, leaning
	Functional: Carrying, lifting, pushing, pulling, climbing, exercising
Sensory function	Hearing, seeing, tactile feeling, tasting, smelling
Hand functions	Grasping, holding, pinching, percussive movements, sensory discrimination
Travel	Riding, driving, traveling by airplane, train, or car
Sexual function	Participating in desired sexual activity
Sleep	Having a restful sleep pattern
Social and recreational activities	Participating in individual or group activities, sports, hobbies

Non-Musculoskeletal MMI/IR

BE SURE to order any testing necessary to be able to rate the condition per the AMA Guides!

- **Why Needed**
- **What Findings were**
- **How did it affect decision making**

Additional Testing and Referrals

Refer For Specialty Evaluation if Needed

The designated doctor shall perform additional testing when necessary to resolve the issue in question. The designated doctor shall also refer an injured employee to other health care providers when the referral is necessary to resolve the issue in question and the designated doctor is not qualified to fully resolve the issue in question. Any additional testing or referral required for the evaluation is not subject to preauthorization requirements nor shall those services be denied retrospectively based on medical necessity, extent of injury, or compensability…

28 TAC § 127.10 (c)

Non-Musculoskeletal MMI/IR

Let's test your knowledge...

Non-Musculoskeletal Chapters How to Read the Tables

In using the Tables listing classes of impairment in the non-MSK chapters

A. Use whatever criteria from the Tables that fit the case.

B. Don't be concerned when the rows in the Tables indicate AND / OR. Just use whatever fits.

C. Understand that the criteria in the **first row** of a table should ALWAYS be present.

Non-Musculoskeletal MMI/IR

The Designated Doctor should order testing

A. When they feel like it

B. When their scheduling company tells them to

C. When the facts of the case and the evidence-based medicine indicate that specific testing is necessary.

Non-Musculoskeletal MMI/IR

When the Designated Doctor orders testing, they should:

A. Just attach a copy of the report

B. Include in the report WHY the testing was needed

C. Include in the report WHAT the findings were

D. Include in the report HOW the findings affected medical decision making

E. B – D and attach a copy of the report

Non-Musculoskeletal Chapters

Let's proceed with some cases that illustrate the concepts in the Non-MSK Chapters

Case 1 – Respiratory System (Chapter 5)

- 36-year-old ICU nurse contracted Covid-19 in the course and scope of her employment.
- Healthy non-smoker, normal BMI and no significant PMH such as DM, HTN, other cardiovascular disease
- Admitted to ICU for cardiopulmonary support
- Remained intubated for 6 weeks for ventilatory support and weaned by 8 weeks

Case 1 – Respiratory System (Chapter 5)

- Primary hospital for 10 weeks
- Inpatient rehabilitation unit for 3 weeks
- Out-patient PT / OT for 6 months
- At one year after completion of PT, she has continued with fatigue and shortness of breath, that has been stable

Case 1 – Respiratory System (Chapter 5)

Medical history:

- Negative for ever smoking cigarettes
- Negative 2nd hand smoke exposure
- No H/O Asthma
- Negative for any other significant childhood / adult pulmonary infection or disease.

Occupational History:

- No exposure to asbestos

  (or potential for silicosis)

Case 1 – Respiratory System (Chapter 5)

Complaints:

- Continued fatigue that makes it difficult to perform ADLs and work activities
- Gets short of breath easily with minimal exertion

Exam at MMI:

- SOB with moving on and off the exam table.
- Lungs clear to auscultation and percussion

Case 1 – Respiratory System (Chapter 5)

Pulmonary Function Tests (PFTs)

- **Respiratory Impairment - Referred for PFTs**
  - FEV1 was 80TH %
  - FVC was 75TH %
  - FEV1 / FVC was 76th %
  - DCO was 61st %
- ***Functionally, the changes in DCO are most impacted by Covid-19 infections.***

Case 1 – Respiratory System (Chapter 5)

On the date of MMI, what is the respiratory system impairment rating?

Chapter 5, Table 8, Page 162

Classes of Respiratory Impairments

Table 8. Classes of Respiratory Impairment.*

	Class 1: 0%, no impairment of the whole person	**Class 2:** 10-25%, mild impairment of the whole person	**Class 3:** 26-50%, moderate impairment of the whole person	**Class 4:** 51-100%, severe impairment of the whole person
FVC FEV_1 FEV_1/FVC (%) D_{CO}	FVC ≥ 80% of predicted; *and* FEV_1 ≥ 80% of predicted; *and* FEV_1/FVC ≥ 70%; *and* D_{CO} ≥ 70% of predicted.	FVC between 60% and 79% of predicted; *or* FEV_1 between 60% and 79% of predicted; *or* D_{CO} between 60% and 69% of predicted.	FVC between 51% and 59% of predicted; *or* FEV_1 between 41% and 59% of predicted; *or* D_{CO} between 41% and 59% of predicted.	FVC ≤ 50% of predicted; *or* FEV_1 ≤ 40% of predicted; *or* D_{CO} ≤ 40% of predicted.
	or	**or**	**or**	**or**
$\dot{V}O_2$ Max	> 25 mL/(kg • min); *or* > 7.1 METS	Between 20 and 25 mL/(kg • min); *or* 5.7-7.1 METS	Between 15 and 20 mL/(kg • min); *or* 4.3-5.7 METS	< 15 mL/(kg • min); *or* < 1.05 L/min; *or* < 4.3 METS

*FVC = forced vital capacity, FEV_1 = forced expiratory volume in the first second, D_{CO} = diffusing capacity of carbon monoxide. The D_{CO} is primarily of value for persons with restrictive lung disease. In classes 2 and 3, if the FVC, FEV_1 and FEV_1/FVC ratio are normal and the D_{CO} is between 41% and 79%, then an exercise test is required.

$\dot{V}O_2$ Max, or measured exercise capacity, is useful in assessing whether a person's complaint of dyspnea (see Table 1) is a result of respiratory or other conditions. A person's cardiac and conditioning status must be considered in performing the test and in interpreting the results.

Case 1 – Respiratory System

FEV1 80TH %
= Class 1
FVC 75TH %
= Less Impaired End Class 2
FVC / FEV1 76th %
= Less Impaired End Class 2
DCO 61st %
= More Impaired End Class 2
RATE the DCO >>>
More Impaired End of
10 - 25 % WP

Case 1 – Respiratory System (Chapter 5)

Pulmonary Function Tests (PFTs)

- To RATE for IR, must be a Class 2.
- Do not rate EACH of the components of the PFTs.
- Changes DCO commonly associated with COVID-19 infections.
- Changes can DCO also be seen in cases of silicosis / asbestosis.

Questions about Non-MSK MMI/IR Case 1?

Case 1 – Covid –19 infections

This case-based series module does not include a deep dive into Covid and various post-Covid Diagnoses.

Try reviewing the DD Certification Course Non-MSK presentation if you'd like additional information.

Case 1 – Covid –19 infections

It would be very helpful to obtain, and understand the contents of the following article:

Joseph Hirsch, PhD, PsyD; Steven Mandel, MD; Les Kertay, PhD; James B. Talmage, MD; Greg Vanichkachorn, MD; Kurt Hegmann, MD; James Underhill, PhD; John Meyers, PhD; Christopher R. Brigham, MD. **Long Covid-19 Neurological And Psychological Claims: Assessment Guidelines.**

AMA Guides Newsletter (2022) 27 (3): 1–27.1 doi.org/10.1001/amaguidesnewsletters.2022.May June

Case 1 – Covid –19 infections

Abstract AMA Guides May June 2022

- Post–severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) (coronavirus disease 2019 [COVID-19]) conditions are referred to by a wide range of names, including long COVID, post-acute COVID-19, long-term effects of COVID, post-acute COVID syndrome, chronic COVID, long-haul COVID, late sequelae, and others, as well as the research term, post-acute sequelae of SARS-CoV-2 infection (PASC).
- Symptoms may include *"difficulty thinking or concentrating, fatigue, depression, anxiety, and other complaints".*
- **The results of studies are clouded by self-reports, lack of objective cognitive data, misattribution, and ill-defined psychological issues.**

Case 1 – Covid –19 infections

Abstract AMA Guides May June 2022

- The authors surmised, ***"While we do not dismiss the presence of long COVID or chronic COVID-19 symptoms lasting beyond a typically expected viral respiratory transmitted syndrome, neither do we uncritically accept such a syndrome in all those who were diagnosed as having COVID-19, especially in those whose initial presentation was asymptomatic or mild.***

Case 1 – Covid –19 infections

Abstract AMA Guides May June 2022

- Also, ***"Evaluators must be astute and perform unbiased, thorough assessments and focus on objective findings while carefully assessing the potential for confounding or alternate conditions"***

Case 1 – Covid –19 infections

True or False:

When you are evaluating an injured employee that claims different symptoms as a result or exposure or infection to Covid-19, you should accept all those symptoms and assign an impairment based on symptoms

1. **True**
2. **False**

Case 2 – Visual System (Chapter 8)

A welder was struck with a metallic foreign body penetrating the left eye

- Traumatic cataract left eye with lens replacement
- At MMI best corrected visual acuity
  - Left eye distance 20/150, near 14/60
  - Right eye distance 20/25, near 14/14

Case 2 – Visual System (Chapter 8)

- Monocular visual field assessment via Goldman perimeter
  - Peripheral vision left eye 450º (50º loss)
  - No loss of visual field in right eye
- Normal ocular motility
- No diplopia

Case 2 – Visual System (Chapter 8)

On date of MMI, what is whole person IR?

A. 20%
B. 22%
C. 23%
D. 24%

Case 2 - Visual System (chapter 8)

Monocular method of visual field assessment *(pages 217-218)*

Left Eye

- Loss of central vision
  - Distance 20/150, near 14/60 = 87% left eye *(Table 3, page 212)*
- Loss of visual field
  - 450º of peripheral vision (50º lost) = 10% left eye *(Table 5, page 214)*
- Combine loss of central vision and visual field
  - 87% left eye cw 10% left eye = <u>88% left eye</u>

Table 3. Loss (in %) of Central Vision* in a Single Eye.

Snellen rating for distance in feet	Approximate Snellen rating for near in inches													
	14/14	14/18	14/21	14/24	14/28	14/35	14/40	14/45	14/60	14/70	14/80	14/88	14/112	14/140
20/15	0 50	0 50	3 52	4 52	5 53	25 63	27 64	30 65	40 70	43 72	44 72	45 73	48 74	49 75
20/20	0 50	0 50	3 52	4 52	5 53	25 63	27 64	30 65	40 70	43 72	44 72	46 73	48 74	49 75
20/25	3 52	3 52	5 53	6 53	8 54	28 64	30 65	33 67	43 72	45 73	46 73	48 74	50 75	52 76
20/30	5 53	5 53	8 54	9 54	10 55	30 65	32 66	35 68	45 73	48 74	49 74	50 75	53 76	54 77
20/40	8 54	8 54	10 55	11 56	13 57	33 67	35 68	38 69	48 74	50 75	51 76	53 77	55 78	57 79
20/50	13 57	13 57	15 58	16 58	18 59	38 69	40 70	43 72	53 77	55 78	56 78	58 79	60 80	62 81
20/60	16 58	16 58	18 59	20 60	22 61	41 70	44 72	46 73	56 78	59 79	60 80	61 81	64 82	65 83
20/70	18 59	18 59	21 61	22 61	23 62	43 72	46 73	48 74	58 79	61 81	62 81	63 82	66 83	67 84
20/80	20 60	20 60	23 62	24 62	25 63	45 73	47 74	50 75	60 80	63 82	64 82	65 83	68 84	69 85
20/100	25 63	25 63	28 64	29 64	30 65	50 75	52 76	55 78	65 83	68 84	69 84	70 85	73 87	74 87
20/125	30 65	30 65	33 67	34 67	35 68	55 78	57 79	60 80	70 85	73 87	74 87	75 88	78 89	79 90
20/150	34 67	34 67	37 68	38 69	39 70	59 80	61 81	64 82	74 87	77 88	78 89	79 90	82 91	83 92
20/200	40 70	40 70	43 72	44 72	45 73	65 83	67 84	70 85	80 90	83 91	84 92	85 93	88 94	89 95
20/300	43 72	43 72	45 73	46 73	48 74	68 84	70 85	73 87	83 91	85 93	86 93	88 94	90 95	92 96
20/400	45 73	45 73	48 74	49 74	50 75	70 85	72 86	75 88	85 93	88 94	89 94	90 95	93 97	94 97
20/800	48 74	48 74	50 75	51 76	53 77	73 87	75 88	78 89	88 94	90 95	91 96	93 97	95 98	97 99

*Upper number shows % loss of central vision without allowance for monocular aphakia or monocular pseudophakia; lower number shows % loss of central vision with allowance for monocular aphakia or monocular pseudophakia.

Table 5. Loss of Monocular Visual Field.

Total degrees		% of Loss
Lost	Retained	
0	500*	0
5	495	1
10	490	2
15	485	3
20	480	4
25	475	5
30	470	6
35	465	7
40	460	8
45	455	9
50	450	10
55	445	11
60	440	12
65	435	13
70	430	14
75	425	15
80	420	16
85	415	17
90	410	18
95	405	19
100	400	20
105	395	21
110	390	22
115	385	23
120	380	24
125	375	25
130	370	26
135	365	27
140	360	28
145	355	29
150	350	30
155	345	31
160	340	32
165	335	33
170	330	34
175	325	35
180	320	36
185	315	37
190	310	38
195	305	39
200	300	40
205	295	41
210	290	42
215	285	43
220	280	44
225	275	45
230	270	46
235	265	47
240	260	48
245	255	49
250	250	50
255	245	51
260	240	52
265	235	53
270	230	54
275	225	55
280	220	56
285	215	57
290	210	58
295	205	59
300	200	60
305	195	61
310	190	62
315	185	63
320	180	64
325	175	65
330	170	66
335	165	67
340	160	68
345	155	69
350	150	70
355	145	71
360	140	72
365	135	73
370	130	74
375	125	75
380	120	76
385	115	77
390	110	78
395	105	79
400	100	80
405	95	81
410	90	82
415	85	83
420	80	84
425	75	85
430	70	86
435	65	87
440	60	88
445	55	89
450	50	90
455	45	91
460	40	92
465	35	93
470	30	94
475	25	95
480	20	96
485	15	97
490	10	98
495	5	99
500	0	100

*Or more.

Case 2 - Visual System (chapter 8)

Monocular method of visual field assessment *(pages 217-218)*

Right Eye

- Loss of central vision
  - Distance 20/25, near 14/14 = 3% right eye
  - Normal visual field
  - 3% right eye cw 0% right eye = <u>3% right eye</u>

Table 3. Loss (in %) of Central Vision* in a Single Eye.

Snellen rating for distance in feet	Approximate Snellen rating for near in inches													
	14 14	14 18	14 21	14 24	14 28	14 35	14 40	14 45	14 60	14 70	14 80	14 88	14 112	14 140
20 15	0 50	0 50	3 52	4 52	5 53	25 63	27 64	30 65	40 70	43 72	44 72	45 73	48 74	49 75
20 20	0 50	0 50	3 52	4 52	5 53	25 63	27 64	30 65	40 70	43 72	44 72	46 73	48 74	49 75
20 25	3 52	3 52	5 53	6 53	8 54	28 64	30 65	33 67	43 72	45 73	46 73	48 74	50 75	52 76
20 30	5 53	5 53	8 54	9 54	10 55	30 65	32 66	35 68	45 73	48 74	49 74	50 75	53 76	54 77
20 40	8 54	8 54	10 55	11 56	13 57	33 67	35 68	38 69	48 74	50 75	51 76	53 77	55 78	57 79
20 50	13 57	13 57	15 58	16 58	18 59	38 69	40 70	43 72	53 77	55 78	56 78	58 79	60 80	62 81
20 60	16 58	16 58	18 59	20 60	22 61	41 70	44 72	46 73	56 78	59 79	60 80	61 81	64 82	65 83
20 70	18 59	18 59	21 61	22 61	23 62	43 72	46 73	48 74	58 79	61 81	62 81	63 82	66 83	67 84
20 80	20 60	20 60	23 62	24 62	25 63	45 73	47 74	50 75	60 80	63 82	64 82	65 83	68 84	69 85
20 100	25 63	25 63	28 64	29 64	30 65	50 75	52 76	55 78	65 83	68 84	69 84	70 85	73 87	74 87
20 125	30 65	30 65	33 67	34 67	35 68	55 78	57 79	60 80	70 85	73 87	74 87	75 88	78 89	79 90
20 150	34 67	34 67	37 68	38 69	39 70	59 80	61 81	64 82	74 87	77 88	78 89	79 90	82 91	83 92
20 200	40 70	40 70	43 72	44 72	45 73	65 83	67 84	70 85	80 90	83 91	84 92	85 93	88 94	89 95
20 300	43 72	43 72	45 73	46 73	48 74	68 84	70 85	73 87	83 91	85 93	86 93	88 94	90 95	92 96
20 400	45 73	45 73	48 74	49 74	50 75	70 85	72 86	75 88	85 93	88 94	89 94	90 95	93 97	94 97
20 800	48 74	48 74	50 75	51 76	53 77	73 87	75 88	78 89	88 94	90 95	91 96	93 97	95 98	97 99

*Upper number shows % loss of central vision without allowance for monocular aphakia or monocular pseudophakia; lower number shows % loss of central vision with allowance for monocular aphakia or monocular pseudophakia.

Table 5. Loss of Monocular Visual Field.

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45	455	9
50	450	10
55	445	11
60	440	12
65	435	13
70	430	14
75	425	15
80	420	16
85	415	17
90	410	18
95	405	19
100	400	20
105	395	21
110	390	22
115	385	23
120	380	24
125	375	25
130	370	26
135	365	27
140	360	28
145	355	29
150	350	30
155	345	31
160	340	32
165	335	33
170	330	34
175	325	35
180	320	36
185	315	37
190	310	38
195	305	39
200	300	40
205	295	41
210	290	42
215	285	43
220	280	44
225	275	45
230	270	46
235	265	47
240	260	48
245	255	49
250	250	50
255	245	51
260	240	52
265	235	53
270	230	54
275	225	55
280	220	56
285	215	57
290	210	58
295	205	59
300	200	60
305	195	61
310	190	62
315	185	63
320	180	64
325	175	65
330	170	66
335	165	67
340	160	68
345	155	69
350	150	70
355	145	71
360	140	72
365	135	73
370	130	74
375	125	75
380	120	76
385	115	77
390	110	78
395	105	79
400	100	80
405	95	81
410	90	82
415	85	83
420	80	84
425	75	85
430	70	86
435	65	87
440	60	88
445	55	89
450	50	90
455	45	91
460	40	92
465	35	93
470	30	94
475	25	95
480	20	96
485	15	97
490	10	98
495	5	99
500	0	100

Case 2 - Visual System (chapter 8)

Monocular method of visual field assessment *(pages 217-218)*

- For worse eye combine eye IR% for central vision and visual field with eye IR% for ocular motility/diplopia
  - Normal ocular motility/no diplopia = 0%
  - 88% left eye cw 0% **= 88% left eye**
- Determine visual system IR% – origin of "better eye" and "worse eye" *(Table 7, pages 219-221)*
  - Origin of 88% left eye
  - cw 3% right eye = **24% visual system**
- Convert visual system to whole person *(Table 6, page 218)*
  - 24% visual system = **<u>23% WP</u>**

Table 7. Visual System Impairment for Both Eyes.

The values in this table are based on the following formula:

$$\frac{3 \times \text{impairment value of better eye} + \text{impairment value of worse eye}}{4} = \text{impairment of visual system}$$

The guides to the table are percentage impairment values for each eye. The percentage for the worse eye is read at the side of the table. The percentage for the better eye is read at the bottom of the table. At the intersection of the column for the worse eye and the column for the better eye is the impairment of visual system value.

For example, when there is 60% impairment of one eye and 30% impairment of the other eye, read down the side of the table until you come to the larger value (60%). Then follow across the row until it is intersected by the column designated by 30% at the bottom of the page. At the intersection of these two columns is printed the number 38. This number (38) represents the percentage impairment of the visual system when there is 60% impairment of one eye and 30% impairment of the other eye.

If bilateral aphakia is present and corrected central vision has been used in evaluation, impairment of the visual system is weighted by an additional 25% decrease in the value of the remaining corrected vision. For example, a 38% impairment (62% remaining) would be increased to 38% + (25%)(62%) = 54%.

% Impairment worse eye

	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49
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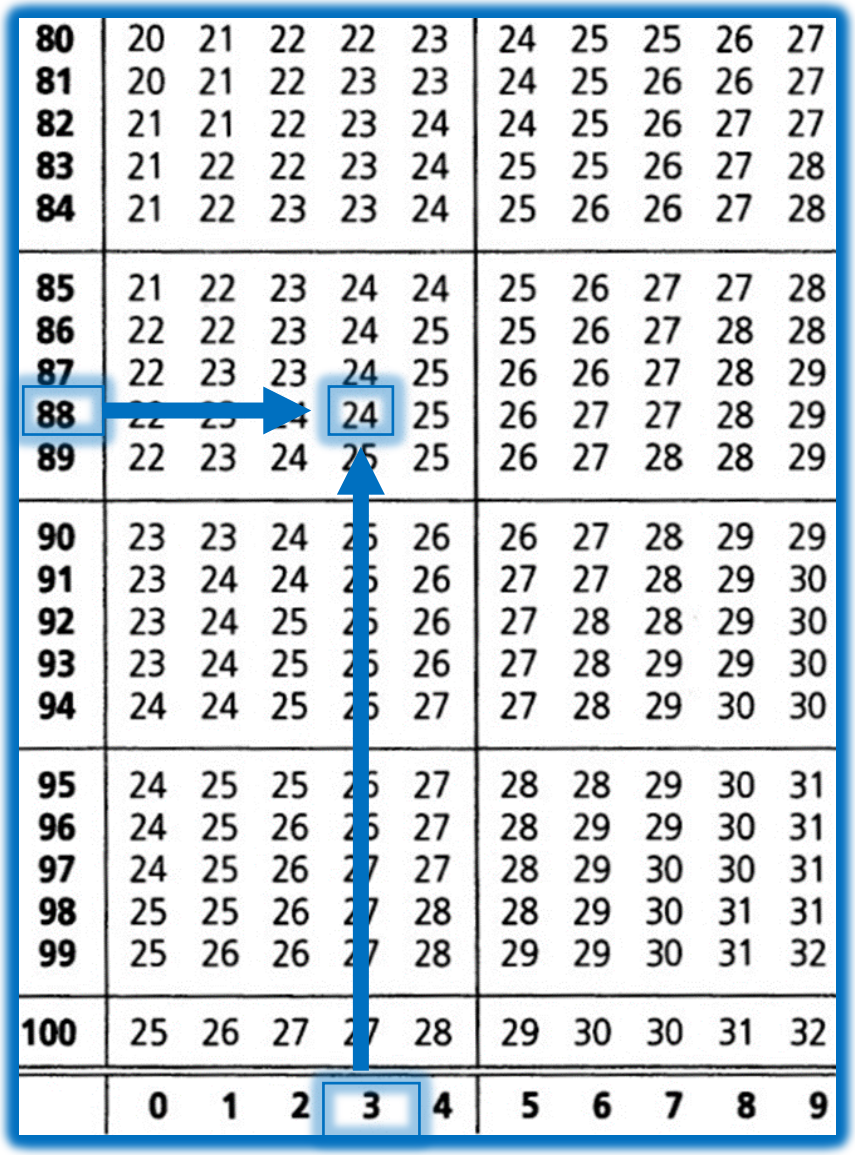
18	5	5	6	7	8	8	9	10	11	11	12	13	14	14	15	16	17	17	18																															
19	5	6	6	7	8	9	9	10	11	12	12	13	14	15	15	16	17	18	18	19																														
20	5	6	7	7	8	9	10	10	11	12	13	13	14	15	16	16	17	18	19	19	20																													
21	5	6	7	8	8	9	10	11	11	12	13	14	14	15	16	17	17	18	19	20	20	21																												
22	6	6	7	8	9	9	10	11	12	12	13	14	15	15	16	17	18	18	19	20	21	21	22																											
23	6	7	7	8	9	10	10	11	12	13	13	14	15	16	16	17	18	19	19	20	21	22	22	23																										
24	6	7	8	8	9	10	11	11	12	13	14	14	15	16	17	17	18	19	20	20	21	22	23	23	24																									
25	6	7	8	9	9	10	11	12	12	13	14	15	15	16	17	18	18	19	20	21	21	22	23	24	24	25																								
26	7	7	8	9	10	10	11	12	13	13	14	15	16	16	17	18	19	19	20	21	22	22	23	24	25	25	26																							
27	7	8	8	9	10	11	11	12	13	14	14	15	16	17	17	18	19	20	20	21	22	23	23	24	25	26	26	27																						
28	7	8	9	9	10	11	12	12	13	14	15	15	16	17	18	18	19	20	21	21	22	23	24	24	25	26	27	27	28																					
29	7	8	9	10	10	11	12	13	13	14	15	16	16	17	18	19	19	20	21	22	22	23	24	25	25	26	27	28	28	29																				
30	8	8	9	10	11	11	12	13	14	14	15	16	17	17	18	19	20	20	21	22	23	23	24	25	26	26	27	28	29	29	30																			
31	8	9	9	10	11	12	12	13	14	15	15	16	17	18	18	19	20	21	21	22	23	24	24	25	26	27	27	28	29	30	30	31																		
32	8	9	10	10	11	12	13	13	14	15	16	16	17	18	19	19	20	21	22	22	23	24	25	25	26	27	28	28	29	30	31	31	32																	
33	8	9	10	11	11	12	13	14	14	15	16	17	17	18	19	20	20	21	22	23	23	24	25	26	26	27	28	29	29	30	31	32	32	33																
34	9	9	10	11	12	12	13	14	15	15	16	17	18	18	19	20	21	21	22	23	24	24	25	26	27	27	28	29	30	30	31	32	33	33	34															
35	9	10	10	11	12	13	13	14	15	16	16	17	18	19	19	20	21	22	22	23	24	25	25	26	27	28	28	29	30	31	31	32	33	34	34	35														
36	9	10	11	11	12	13	14	14	15	16	17	17	18	19	20	20	21	22	23	23	24	25	26	26	27	28	29	29	30	31	32	32	33	34	35	35	36													
37	9	10	11	12	12	13	14	15	15	16	17	18	18	19	20	21	21	22	23	24	24	25	26	27	27	28	29	30	30	31	32	33	33	34	35	36	36	37												
38	10	10	11	12	13	13	14	15	16	16	17	18	19	19	20	21	22	22	23	24	25	25	26	27	28	28	29	30	31	31	32	33	34	34	35	36	37	37	38											
39	10	11	11	12	13	14	14	15	16	17	17	18	19	20	20	21	22	23	23	24	25	26	26	27	28	29	29	30	31	32	32	33	34	35	35	36	37	38	38	39										
40	10	11	12	12	13	14	15	15	16	17	18	18	19	20	21	21	22	23	24	24	25	26	27	27	28	29	30	30	31	32	33	33	34	35	36	36	37	38	39	39	40									
41	10	11	12	13	13	14	15	16	16	17	18	19	19	20	21	22	22	23	24	25	25	26	27	28	28	29	30	31	31	32	33	34	34	35	36	37	37	38	39	40	40	41								
42	11	11	12	13	14	14	15	16	17	17	18	19	20	20	21	22	23	23	24	25	26	26	27	28	29	29	30	31	32	32	33	34	35	35	36	37	38	38	39	40	41	41	42							
43	11	12	12	13	14	15	15	16	17	18	18	19	20	21	21	22	23	24	24	25	26	27	27	28	29	30	30	31	32	33	33	34	35	36	36	37	38	39	39	40	41	42	42	43						
44	11	12	13	13	14	15	16	16	17	18	19	19	20	21	22	22	23	24	25	25	26	27	28	28	29	30	31	31	32	33	34	34	35	36	37	37	38	39	40	40	41	42	43	43	44					
45	11	12	13	14	14	15	16	17	17	18	19	20	20	21	22	23	23	24	25	26	26	27	28	29	29	30	31	32	32	33	34	35	35	36	37	38	38	39	40	41	41	42	43	44	44	45				
46	12	12	13	14	15	15	16	17	18	18	19	20	21	21	22	23	24	24	25	26	27	27	28	29	30	30	31	32	33	33	34	35	36	36	37	38	39	39	40	41	42	42	43	44	45	45	46			
47	12	13	13	14	15	16	16	17	18	19	19	20	21	22	22	23	24	25	25	26	27	28	28	29	30	31	31	32	33	34	34	35	36	37	37	38	39	40	40	41	42	43	43	44	45	46	46	47		
48	12	13	14	14	15	16	17	17	18	19	20	20	21	22	23	23	24	25	26	26	27	28	29	29	30	31	32	32	33	34	35	35	36	37	38	38	39	40	41	41	42	43	44	44	45	46	47	47	48	
49	12	13	14	15	15	16	17	18	18	19	20	21	21	22	23	24	24	25	26	27	27	28	29	30	30	31	32	33	33	34	35	36	36	37	38	39	39	40	41	42	42	43	44	45	45	46	47	48	48	49

% Impairment better eye

Visual System Impairment (Table 7, pg. 220)



80	20	21	22	22	23	24	25	25	26	27
81	20	21	22	23	23	24	25	26	26	27
82	21	21	22	23	24	24	25	26	27	27
83	21	22	22	23	24	25	25	26	27	28
84	21	22	23	23	24	25	26	26	27	28
85	21	22	23	24	24	25	26	27	27	28
86	22	22	23	24	25	25	26	27	28	28
87	22	23	23	24	25	26	26	27	28	29
88				24	25	26	27	27	28	29
89	22	23	24	25	25	26	27	28	28	29
90	23	23	24	25	26	26	27	28	29	29
91	23	24	24	25	26	27	27	28	29	30
92	23	24	25	25	26	27	28	28	29	30
93	23	24	25	25	26	27	28	29	29	30
94	24	24	25	25	27	27	28	29	30	30
95	24	25	25	25	27	28	28	29	30	31
96	24	25	26	25	27	28	29	29	30	31
97	24	25	26	27	27	28	29	30	30	31
98	25	25	26	27	28	28	29	30	31	31
99	25	26	26	27	28	29	29	30	31	32
100	25	26	27	27	28	29	30	30	31	32
	0	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**

Visual System Impairment (Table 6, pg. 218)

Table 6. Impairment of the Visual System as It Relates to Impairment of the Whole Person.

% Impairment of the											
Visual system	Whole person	Visual system	Whole person	Visual system	Whole person	Visual system	Whole person	Visual system	Whole person	Visual system	Whole person
0	0	15	14	30	28	45	42	60	57	75	71
1	1	16	15	31	29	46	43	61	58	76	72
2	2	17	16	32	30	47	44	62	59	77	73
3	3	18	17	33	31	48	45	63	59	78	74
4	4	19	18	34	32	49	46	64	60	79	75
5	5	20	19	35	33	50	47	65	61	80	76
6	6	21	20	36	34	51	48	66	62	81	76
7	7	22	21	37	35	52	49	67	63	82	77
8	8	23	22	38	36	53	50	68	64	83	78
9	8	24	23	39	37	54	51	69	65	84	79
10	9	25	24	40	38	55	52	70	66	85	80
11	10	26	25	41	39	56	53	71	67	86	81
12	11	27	25	42	40	57	54	72	68	87	82
13	12	28	26	43	41	58	55	73	69	88	83
14	13	29	27	44	42	59	56	74	70	89	84
										90-100	85

Case 2 – Visual System (Chapter 8)

The IE had a a corneal injury resulting in a significant impairment of the affected eye. There was a prior traumatic enucleation of the non-injured eye.

This was prior to the DOI, so do not consider the prior eye injury

1. True
2. False

Questions about Non-MSK MMI/IR Case 2?

Case 3 – Hearing
(ENT & Related Structures - Chapter 9)

- 32 year old firefighter with 10 years experience had unexpected acoustic barotrauma (an extremely close siren) while not wearing hearing protection
- Pre-employment and yearly hearing tests have been normal
- Exam demonstrated eardrum perforation on the left

Case 3 – Hearing (Chapter 9)

- Complains of hearing loss in the left ear and tinnitus that is constant
  - Reduced only slightly with white noise and interferes with sleep
  - In high noise environment, he has difficulty understanding speech of co-workers

Case 3 – Hearing (Chapter 9)

Uncorrected hearing audiogram testing after the injury

Right Ear:

- 500 Hz = 10 db, 1000 db = 20 db, 2000, = 30 db and 3000 = 40 db. **DSHL = 100**

Left Ear:

- 500 Hz = 50 db, 1000 db = 70 db, 2000, = 90 db and 3000 = 130 db. **DSHL = 340**

Case 3 – Hearing (Chapter 9)

On date of MMI, what is whole person IR?

A. 5 %
B. 15 %
C. 20 %
D. 90 %

Case 3 – Hearing (Chapter 9)

Right Ear:

500 Hz = 10 db
1000 Hz = 20 db
2000 Hz = 30 db
3000 Hz = 40 db

DSHL = 100 db = **0% Monaural loss**

Case 3 – Hearing (Chapter 9)

Affected / Worst Left Ear:

500 Hz = 50 db
1000 Hz = 70 db
2000 Hz = 90 db
3000 Hz = 130 db

DSHL = 340 db. = 90.0 % Monaural loss

Case 3 – Hearing (Chapter 9)

Be familiar with how to use

Tables: 1, 2, and 3

- Considering Decibel Sum Hearing Levels (DSHL)
  - DSHL of the unaffected Right Ear
  - DSHL of the affected Left Ear

ONLY specific frequencies needed.

Be familiar if you must order testing.

Chapter 9, Table 1, Page 225

Table 1. Monaural Hearing Loss and Impairment (%)*

DSHL†	%	DSHL	%	DSHL	%
100	0.0	190	33.8	285	69.3
		195	35.6	290	71.2
105	1.9	200	37.5	295	73.1
110	3.8			300	75.0
115	5.6	205	39.4		
120	7.5	210	41.2	305	76.9
		215	43.1	310	78.8
125	9.4	220	45.0	315	80.6
130	11.2			320	82.5
135	13.1	225	46.9		
140	15.0	230	48.9	325	84.4
		235	50.5	330	86.2
145	16.9	240	52.5	335	88.1
150	18.8			340	90.0
155	20.6	245	54.4		
160	22.5	250	56.2	345	90.9
		255	58.1	350	93.8
165	24.4	260	60.0	355	95.6
170	26.2			360	97.5
175	28.1	265	61.9		
180	30.0	270	63.8	365	99.4
		275	65.6	368	100.0
185	31.9	280	67.5	or greater	

*Audiometers are calibrated to ANSI 3.6-1989 standard reference levels.
†Decibel sum of the hearing threshold levels at 500, 1000, 2000, and 3000 Hz.

Chapter 9, Table 2, Pages 226-227

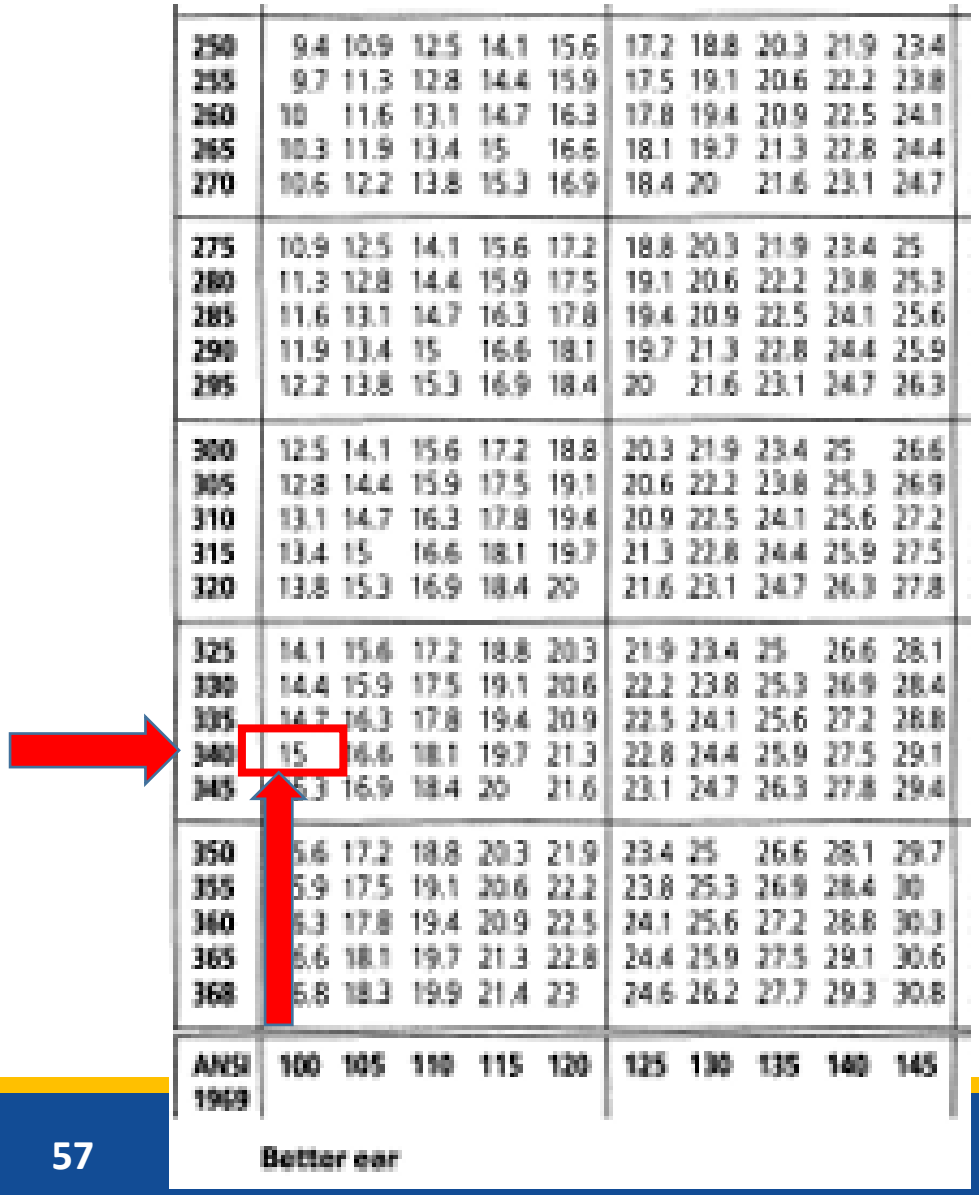
The sum for the worse ear is read at the side; the sum for the better ear is read at the bottom.

Table 2. Computation of Binaural Hearing Impairment*

Worse ear	Better ear: 100	105	110	115	120	125	130	135	140	145	150	155	160	165	170	175	180	185	190	195	200	205	210	215	220	225	230
100	0																										
105	0.3	1.9																									
110	0.6	2.2	3.8																								
115	0.9	2.5	4.1	5.1																							
120	1.3	2.8	4.4	5.9	7.5																						
125	1.6	3.1	4.7	6.3	7.8	9.4																					
130	1.9	3.4	5	6.6	8.1	9.7	11.3																				
135	2.2	3.8	5.3	6.9	8.4	10	11.6	13.1																			
140	2.5	4.1	5.6	7.2	8.8	10.3	11.9	13.4	15																		
145	2.8	4.4	5.9	7.5	9.1	10.6	12.2	13.8	15.3	16.9																	
150	3.1	4.7	6.3	7.8	9.4	10.9	12.5	14.1	15.6	17.2	18.8																
155	3.4	5	6.6	8.1	9.7	11.3	12.8	14.4	15.9	17.5	19.1	20.6															
160	3.8	5.3	6.9	8.4	10	11.6	13.1	14.7	16.3	17.8	19.4	20.9	22.5														
165	4.1	5.6	7.2	8.8	10.3	11.9	13.4	15	16.6	18.1	19.7	21.3	22.8	24.4													
170	4.4	5.9	7.5	9.1	10.6	12.2	13.8	15.3	16.9	18.4	20	21.6	23.1	24.7	26.3												
175	4.7	6.3	7.8	9.4	10.9	12.5	14.1	15.6	17.2	18.8	20.3	21.9	23.4	25	26.6												
180	5	6.6	8.1	9.7	11.3	12.8	14.4	15.9	17.5	19.1	20.6	22.2	23.8	25.3	26.9												
185	5.3	6.9	8.4	10	11.6	13.1	14.7	16.3	17.8	19.4	20.9	22.5	24.1	25.6	27.2												
190	5.6	7.2	8.8	10.3	11.9	13.4	15	16.6	18.1	19.7	21.3	22.8	24.4	25.9	27.5												
195	5.9	7.5	9.1	10.6	12.2	13.8	15.3	16.9	18.4	20	21.6	23.1	24.7	26.3	27.8												
200	6.3	7.8	9.4	10.9	12.5	14.1	15.6	17.2	18.8	20.3	21.9	23.4	25	26.6	28.1												
205	6.6	8.1	9.7	11.3	12.8	14.4	15.9	17.5	19.1	20.6	22.2	23.8	25.3	26.9	28.4	30	31.6	33.1	34.7	36.3	37.8	39.4					
210	6.9	8.4	10	11.6	13.1	14.7	16.3	17.8	19.4	20.9	22.5	24.1	25.6	27.2	28.8	30.3	31.9	33.4	35	36.6	38.1	39.7	41.3				
215	7.2	8.8	10.3	11.9	13.4	15	16.6	18.1	19.7	21.3	22.8	24.4	25.9	27.5	29.1	30.6	32.2	33.8	35.3	36.9	38.4	40	41.6	43.1			
220	7.5	9.1	10.6	12.2	13.8	15.3	16.9	18.4	20	21.6	23.1	24.7	26.3	27.8	29.4	30.9	32.5	34.1	35.6	37.2	38.8	40.3	41.9	43.4	45		
225	7.8	9.4	10.9	12.5	14.1	15.6	17.2	18.8	20.3	21.9	23.4	25	26.6	28.1	29.7	31.3	32.8	34.4	35.9	37.5	39.1	40.6	42.2	43.8	45.3	46.9	
230	8.1	9.7	11.3	12.8	14.4	15.9	17.5	19.1	20.6	22.2	23.8	25.3	26.9	28.4	30	31.6	33.1	34.7	36.3	37.8	39.4	40.9	42.5	44.1	45.6	47.2	48.8
235	8.4	10	11.6	13.1	14.7	16.3	17.8	19.4	20.9	22.5	24.1	25.6	27.2	28.8	30.3	31.9	33.4	35	36.6	38.1	39.7	41.3	42.8	44.4	45.9	47.5	49.1
240	8.8	10.3	11.9	13.4	15	16.6	18.1	19.7	21.3	22.8	24.4	25.9	27.5	29.1	3.06	32.2	33.8	35.3	36.9	38.4	40	41.6	43.1	44.7	46.3	47.8	49.4
245	9.1	10.6	12.2	13.8	15.3	16.9	18.4	20	21.6	23.1	24.7	26.3	27.8	29.4	30.9	32.5	34.1	35.6	37.2	38.8	40.3	41.9	43.4	45	46.6	48.1	49.7
250	9.4	10.9	12.5	14.1	15.6	17.2	18.8	20.3	21.9	23.4	25	26.6	28.1	29.7	31.3	32.8	34.4	35.9	37.5	39.1	40.6	42.2	43.8	45.3	46.9	48.4	50
255	9.7	11.3	12.8	14.4	15.9	17.5	19.1	20.6	22.2	23.8	25.3	26.9	28.4	30	31.6	33.1	34.7	36.3	37.8	39.4	40.9	42.5	44.1	45.6	47.2	48.8	50.3
260	10	11.6	13.1	14.7	16.3	17.8	19.4	20.9	22.5	24.1	25.6	27.2	28.8	30.3	31.9	33.4	35	36.6	38.1	39.7	41.3	42.8	44.4	45.9	47.5	49.1	50.6
265	10.3	11.9	13.4	15	16.6	18.1	19.7	21.3	22.8	24.4	25.9	27.5	29.1	30.6	32.2	33.8	35.3	36.9	38.4	40	41.6	43.1	44.7	46.3	47.8	49.4	50.9
270	10.6	12.2	13.8	15.3	16.9	18.4	20	21.6	23.1	24.7	26.3	27.8	29.4	30.9	32.5	34.1	35.6	37.2	38.8	40.3	41.9	43.4	45	46.6	48.1	49.7	51.3
275	10.9	12.5	14.1	15.6	17.2	18.8	20.3	21.9	23.4	25	26.6	28.1	29.7	31.3	32.8	34.4	35.9	37.5	39.1	40.6	42.2	43.8	45.3	46.9	48.4	50	51.6
280	11.3	12.8	14.4	15.9	17.5	19.1	20.6	22.2	23.8	25.3	26.9	28.4	30	31.6	33.1	34.7	36.3	37.8	39.4	40.9	42.5	44.1	45.6	47.2	48.8	50.3	51.9
285	11.6	13.1	14.7	16.3	17.8	19.4	20.9	22.5	24.1	25.6	27.2	28.8	30.3	31.9	33.4	35	36.6	38.1	39.7	41.3	42.8	44.4	45.9	47.5	49.1	50.6	52.2
290	11.9	13.4	15	16.6	18.1	19.7	21.3	22.8	24.4	25.9	27.5	29.1	30.6	32.2	33.8	35.3	36.9	38.4	40	41.6	43.1	44.7	46.3	47.8	49.4	50.9	52.5
295	12.2	13.8	15.3	16.9	18.4	20	21.6	23.1	24.7	26.3	27.8	29.4	30.9	32.5	34.1	35.6	37.2	38.8	40.3	41.9	43.4	45	46.6	48.1	49.7	51.3	52.8
300	12.5	14.1	15.6	17.2	18.8	20.3	21.9	23.4	25	26.6	28.1	29.7	31.3	32.8	34.4	35.9	37.5	39.1	40.6	42.2	43.8	45.3	46.9	48.4	50	51.6	53.1
305	12.8	14.4	15.9	17.5	19.1	20.6	22.2	23.8	25.3	26.9	28.4	30	31.6	33.1	34.7	36.3	37.8	39.4	40.9	42.5	44.1	45.6	47.2	48.8	50.3	51.9	53.4
310	13.1	14.7	16.3	17.8	19.4	20.9	22.5	24.1	25.6	27.2	28.8	30.3	31.9	33.4	35	36.6	38.1	39.7	41.3	42.8	44.4	45.9	47.5	49.1	50.6	52.2	53.8
315	13.4	15	16.6	18.1	19.7	21.3	22.8	24.4	25.9	27.5	29.1	30.6	32.2	33.8	35.3	36.9	38.4	40	41.6	43.1	44.7	46.3	47.8	49.4	50.9	52.5	54.1
320	13.8	15.3	16.9	18.4	20	21.6	23.1	24.7	26.3	27.8	29.4	30.9	32.5	34.1	35.6	37.2	38.8	40.3	41.9	43.4	45	46.6	48.1	49.7	51.3	52.8	54.4
325	14.1	15.6	17.2	18.8	20.3	21.9	23.4	25	26.6	28.1	29.7	31.3	32.8	34.4	35.9	37.5	39.1	40.6	42.2	43.8	45.3	46.9	48.4	50	51.6	53.1	54.7
330	14.4	15.9	17.5	19.1	20.6	22.2	23.8	25.3	26.9	28.4	30	31.6	33.1	34.7	36.3	37.8	39.4	40.9	42.5	44.1	45.6	47.2	48.8	50.3	51.9	53.4	55
335	14.7	16.3	17.8	19.4	20.9	22.5	24.1	25.6	27.2	28.8	30.3	31.9	33.4	35	36.6	38.1	39.7	41.3	42.8	44.4	45.9	47.5	49.1	50.6	52.2	53.8	55.3
340	15	16.6	18.1	19.7	21.3	22.8	24.4	25.9	27.5	29.1	30.6	32.2	33.8	35.3	36.9	38.4	40	41.6	43.1	44.7	46.3	47.8	49.4	50.9	52.5	54.1	55.6
345	15.3	16.9	18.4	20	21.6	23.1	24.7	26.3	27.8	29.4	30.9	32.5	34.1	35.6	37.2	38.8	40.3	41.9	43.4	45	46.6	48.1	49.7	51.3	52.8	54.4	55.9
350	15.6	17.2	18.8	20.3	21.9	23.4	25	26.6	28.1	29.7	31.3	32.8	34.4	35.9	37.5	39.1	40.6	42.2	43.8	45.3	46.9	48.4	50	51.6	53.1	54.7	56.3
355	15.9	17.5	19.1	20.6	22.2	23.8	25.3	26.9	28.4	30	31.6	33.1	34.7	36.3	37.8	39.4	40.9	42.5	44.1	45.6	47.2	48.8	50.3	51.9	53.4	55	56.6
360	16.3	17.8	19.4	20.9	22.5	24.1	25.6	27.2	28.8	30.3	31.9	33.4	35	36.6	38.1	39.7	41.3	42.8	44.4	45.9	47.5	49.1	50.6	52.2	53.8	55.3	56.9
365	16.6	18.1	19.7	21.3	22.8	24.4	25.9	27.5	29.1	30.6	32.2	33.8	35.3	36.9	38.4	40	41.6	43.1	44.7	46.3	47.8	49.4	50.9	52.5	54.1	55.6	57.2
368	16.8	18.3	19.9	21.4	23	24.6	26.2	27.7	29.3	30.8	32.4	33.9	35.5	37.1	38.6	40.2	41.8	43.3	44.9	46.4	48	49.6	51.1	52.7	54.3	55.8	57.4
ANSI 1969	100	105	110	115	120	125	130	135	140	145	150	155	160	165	170	175	180	185	190	195	200	205	210	215	220	225	230

Better ear

Chapter 9, Table 2, Pages 226-227



250	9.4	10.9	12.5	14.1	15.6	17.2	18.8	20.3	21.9	23.4
255	9.7	11.3	12.8	14.4	15.9	17.5	19.1	20.6	22.2	23.8
260	10	11.6	13.1	14.7	16.3	17.8	19.4	20.9	22.5	24.1
265	10.3	11.9	13.4	15	16.6	18.1	19.7	21.3	22.8	24.4
270	10.6	12.2	13.8	15.3	16.9	18.4	20	21.6	23.1	24.7
275	10.9	12.5	14.1	15.6	17.2	18.8	20.3	21.9	23.4	25
280	11.3	12.8	14.4	15.9	17.5	19.1	20.6	22.2	23.8	25.3
285	11.6	13.1	14.7	16.3	17.8	19.4	20.9	22.5	24.1	25.6
290	11.9	13.4	15	16.6	18.1	19.7	21.3	22.8	24.4	25.9
295	12.2	13.8	15.3	16.9	18.4	20	21.6	23.1	24.7	26.3
300	12.5	14.1	15.6	17.2	18.8	20.3	21.9	23.4	25	26.6
305	12.8	14.4	15.9	17.5	19.1	20.6	22.2	23.8	25.3	26.9
310	13.1	14.7	16.3	17.8	19.4	20.9	22.5	24.1	25.6	27.2
315	13.4	15	16.6	18.1	19.7	21.3	22.8	24.4	25.9	27.5
320	13.8	15.3	16.9	18.4	20	21.6	23.1	24.7	26.3	27.8
325	14.1	15.6	17.2	18.8	20.3	21.9	23.4	25	26.6	28.1
330	14.4	15.9	17.5	19.1	20.6	22.2	23.8	25.3	26.9	28.4
335	14.7	16.3	17.8	19.4	20.9	22.5	24.1	25.6	27.2	28.8
340	15	16.6	18.1	19.7	21.3	22.8	24.4	25.9	27.5	29.1
345	15.3	16.9	18.4	20	21.6	23.1	24.7	26.3	27.8	29.4
350	15.6	17.2	18.8	20.3	21.9	23.4	25	26.6	28.1	29.7
355	15.9	17.5	19.1	20.6	22.2	23.8	25.3	26.9	28.4	30
360	16.3	17.8	19.4	20.9	22.5	24.1	25.6	27.2	28.8	30.3
365	16.6	18.1	19.7	21.3	22.8	24.4	25.9	27.5	29.1	30.6
368	16.8	18.3	19.9	21.4	23	24.6	26.2	27.7	29.3	30.8
ANSI 1969	100	105	110	115	120	125	130	135	140	145

Better ear

At the intersection of the row for the worse ear and the column for the better ear is the hearing impairment (%).

Chapter 9, Table 3, Page

Table 3. Relationship of Binaural Hearing Impairment to Impairment of the Whole Person.

% Binaural hearing impairment	% Impairment of the whole person	% Binaural hearing impairment	% Impairment of the whole person
0 - 1.7	0	50.0 - 53.1	18
1.8 - 4.2	1	54.2 - 55.7	19
4.3 - 7.4	2	55.8 - 58.8	20
7.5 - 9.9	3	58.9 - 61.4	21
10.0 - 13.1	4	61.5 - 64.5	22
13.2 - 15.9	5	64.6 - 67.1	23
16.0 - 18.8	6	67.2 - 70.0	24
18.9 - 21.4	7	70.1 - 72.8	25
21.5 - 24.5	8	72.9 - 75.9	26
24.6 - 27.1	9	76.0 - 78.5	27
27.2 - 30.0	10	78.6 - 81.7	28
30.1 - 32.8	11	81.8 - 84.2	29
32.9 - 35.9	12	84.3 - 87.4	30
36.0 - 38.5	13	87.5 - 89.9	31
38.6 - 41.7	14	90.0 - 93.1	32
41.8 - 44.2	15	93.2 - 95.7	33
44.3 - 47.4	16	95.8 - 98.8	34
47.5 - 49.9	17	98.9 -100.0	35

Case 3 – Hearing (chapter 9)

- Table 1 for DSHL of 340 = 90.0 % monaural loss.
- BUT can SKIP to **Table 2**

  And CALCULATE

  Best Ear 100 DSHL

  Worst Ear 340 DSHL
- **Table 2** - Best to Worst Ear **Binaural = 15 % WP**
- **Table 3 - Hearing loss to WP = 5% WP**

Case 3 - Hearing (chapter 9)
SUMMARY

What about TINNITUS?

- Per page 224, "Tinnitus in the presence of unilateral or bilateral hearing loss may impair speech discrimination; therefore, an impairment percentage up to 5 % may be ADDED to the impairment for hearing loss"

Answer: 5 % WP plus 1 % - 5% for tinnitus = 16 - 10% WP

EXPLAIN and DEFEND your answer.

Case 3 - Hearing (chapter 9)
SUMMARY

What about TINNITUS?

The injured employee is adamant that they have constant tinnitus of a severe degree. There is a loss of the hearing system of 1 % WP. You should assign 3 – 5 % WP for the TINNITUS.

1. **True**
2. **False**

Questions about Case 3?

Case 4 – Burn (Skin - Chapter 13)

- Injured employee sustained severe burn to distal right anterior thigh, over the knee
- Grafted with intermittent cracking of grafted area.
- Normal ambulation not affected, but limits squatting, and other activities with flexion of the knee; some ADLs limited as a result

Case 4 – Burn (Skin - Chapter 13)

- Requires use of topical cream several times a day
- No other intensive or ongoing treatment
- Knee ROM
  - flexion 80º (active and passive consistent)
  - extension 0º
- The skin on the anterior knee is taunt at 80º

Case 4 – Burn (Chapter 13)

On date of MMI, what is whole person IR?

A. 27%
B. 24%
C. 14%
D. Range of IR percentages, explain your answer

Case 4 – Burn (Chapter 13)

- Table 2, pg. 280
- Based on effect on ADLS
- IR accrues from limited ROM, combine knee ROM WP impairment with skin WP impairment
- Discrepancies between Table 2, and text in Section 13.7, pages 281-289

Case 4 – Burn (Chapter 13)

Class 2, Table 2, pg. 280

- 10% to 24% WP
  (10%-25% in text pg. 282)
- Signs/symptoms present or intermittently present
- AND Some limitation of ADLs
- AND Intermittent to constant treatment may be required

Case 4 – Burn (Chapter 13)

Table 2, Page 280

Table 2. Impairment Classes and Percents for Skin Disorders.*

Class 1: **0%-9% impairment**	**Class 2:** **10%-24% impairment**	**Class 3:** **25%-54% impairment**	**Class 4:** **55%-84% impairment**	**Class 5:** **85%-95% impairment**
Signs and symptoms of skin disorder are present or only intermittently present;	Signs and symptoms of skin disorder are present or intermittently present;	Signs and symptoms of skin disorder are present or intermittently present;	Signs and symptoms of skin disorder are *constantly* present;	Signs and symptoms of skin disorder are *constantly* present;
and	**and**	**and**	**and**	**and**
There is no limitation or limitation in the performance of *few* activities of daily living, although exposure to certain chemical or physical agents might increase limitation temporarily;	There is limitation in the performance of *some* of the activities of daily living;	There is limitation in the performance of *many* of the activities of daily living;	There is limitation in the performance of *many* of the activities of daily living that may include intermittent confinement at home or other domicile;	There is limitation in the performance of *most* of the activities of daily living, including occasional to constant confinement at home or other domicile;
and	**and**	**and**	**and**	**and**
No treatment or intermittent treatment is required.	Intermittent to constant treatment may be required.	Intermittent to constant treatment may be required.	Intermittent to constant treatment may be required.	Intermittent to constant treatment may be required.

*The signs and symptoms of disorders in classes 1 and 2 may be intermittent and not present at the time of examination. The impact of the skin disorder on daily activities should be the primary consideration in determining the class of impairment. The frequency and intensity of signs and symptoms and the frequency and complexity of medical treatment should guide the selection of an appropriate impairment percentage and estimate within any class (see chapter introduction).

READ FOOTNOTES!

Case 4 – Burn (Chapter 13)

Class 2, Page 282

Class 2: Impairment of the Whole Person, 10% to 25%

A person belongs in class 2 when (1) signs and symptoms of a skin disorder are present or intermittently present; *and* (2) there is limitation in the performance of *some* of the activities of daily living; *and* (3) intermittent to constant treatment may be required.

Case 4 – Burn (Chapter 13)

Table 41, Knee Impairments, pg. 78

- Flexion 80° = 8% WP
- Extension 0° = 0% WP
- **Total knee ROM = 8% WP**

Case 4 – Burn (Chapter 13)

Here is the RANGE

Combine

- skin 10% WP with
- knee ROM 8% WP
- = 17% WP

Combine:

- skin 24%(25%) WP with
- knee ROM 8%
- = 30% (31%) WP

- **IR = 17% to 30% (31%) WP**

Case 4 – Burn (Chapter 13)

Different TYPES of BURNS are associated with different types of complications;

- **Thermal Burns / Fire Associated**
  - Involvement of the tendons, muscles and bone underlying the skin
  - Potential Smoke inhalation with pulmonary damage
  - Rhabdomyolysis with kidney damage
  - Anoxic damage
  - Heterotopic Ossification at sites different to the burn if large TBSA

Case 4 – Burn (Chapter 13)

Different TYPES of BURNS are associated with different types of complications;

- **Electrocution:**
  - Entrance and exit wounds and possible neurologic injury.
  - Asystole with anoxic encephalopathy (extreme)

Case 4 – Burn (Chapter 13)

In assessing a BURN injury, rely solely upon Chapter 13 for the SKIN

1. True
2. False

Questions about Non-MSK MMI/IR Case 4?

Case 5 – Hernia (Digestive System – Chapter 10)

- IE sustained ventral and left inguinal hernias while working
- Underwent ventral hernia repair and left inguinal hernia repair, both with mesh
- At MMI no palpable defect in either surgical site

Case 5 – Hernia (Chapter 10)

- With increased pressure maneuvers including Valsalva, coughing, and lifting head up while supine, slight protrusions in inguinal canal and abdominal hernia repair which were reducible
- Returned to work in warehouse lifting more than 50 pounds occasionally

Case 5 – Hernia (Chapter 10)

Question for DD:

On MMI date, what is whole person IR?

A. 0%
B. 5%
C. 15%
D. 25%

Case 5 – Hernia (Chapter 10)

Table 7. Classes of Hernia-related Impairment.

Class 1: **0%-9% impairment of the whole person**	**Class 2:** **10%-19% impairment of the whole person**	**Class 3:** **20%-30% impairment of the whole person**
Palpable defect in supporting structures of abdominal wall;	Palpable defect in supporting structures of abdominal wall;	Palpable defect in supporting structures of abdominal wall;
and	**and**	**and**
Slight protrusion at site of defect with increased abdominal pressure; readily reducible;	Frequent or persistent protrusion at site of defect with increased abdominal pressure; manually reducible;	Persistent, irreducible, or irreparable protrusion at site of defect;
or	**or**	**and**
Occasional mild discomfort at site of defect, but not precluding normal activity.	Frequent discomfort, precluding heavy lifting, but not hampering normal activity.	Limitation in normal activity.

Case 5 – Hernia (Chapter 10)

APD 072253-s

To assess impairment for hernia-related injury under Table 7 "Classes of Hernia-related Impairment", page 10/247 of Guides 4th Edition, there must be a palpable defect in the supporting structures of the abdominal wall.

> ***Best Practice*** - If there is no palpable defect do not use Table 7. Provide 0% IR for the hernia, instead of "no impairment".

APD 211351

Be consistent on the DWC-069 and your narrative report.

Case 5 – Hernia (Chapter 10)

Table 7 vs. Text, Page 247

- Table 7
  - Class 1 = 0% - 9%
  - Class 2 = 10% -19%
  - Class 3 = 20% - 30%

vs.

- Text
  - Class 1 Impairment of whole person 0 to10%
  - Class 2 Impairment of whole person 10 to 20%
  - Class 3 Impairment of whole person 20 to 30%

Case 5 – Hernia (Chapter 10)

Table 7 vs. Text, Page 247

For Either Table 7 or Text

- Select single IR percentage within range that best fits clinical condition of IE

Case 5 – Hernia (Chapter 10)

REMEMBER: There are some additional conditions that may accrue impairment with hernias

Table 24 on 152

Ilioinguinal or Iliohypogastric Nerves.

See Figure 59 on page 93 for nerve distribution.

- Take the MAX VALUE and multiply by the Grade from Table 20 page 151.
- COMBINE with the IR for the hernia since it is a different organ system.
- Numbness or pain over or around the scar DOES NOT accrue impairment. Must have altered sensation in the nerve distribution distal to the surgical scar.

See Figure 59 on page 93.

This also applies to Chapter 13!

Case 5 – Hernia (Chapter 10)

The claimant has a right INGUINAL and a left INGUINAL Hernia accepted as compensable diagnoses.
Due to morbid obesity, the mesh repair was not effective.
The right inguinal hernia rated a Class 2 and the left inguinal hernia rated a Class 3.

You would combine the Classs 2 and Class 3 impairment for the hernias.

1. **True**
2. **False**

Questions about Non-MSK MMI/IR Case 5?

Questions?

Non-MSK

You will find more complete discussion of some of the NON-MSK Chapters along with pearls related to other Chapters in the PDF for the NON-MSK section of the Certification Course.

Thank you