Clarifications and Corrections

SIXTH EDITION

Guides to the Evaluation of Permanent Impairment

Dear American Medical Association's *Guides*, Sixth Edition Customer:

Thank you for your recent purchase of the American Medical Association's *Guides to the Evaluation of Permanent Impairment*, Sixth Edition (*Guides*).

As you may already know, the Sixth Edition of the *Guides* uses a new methodology to assess impairment, and addresses past criticisms of the *Guides* including physician interrater and intrarater reliability, consistency between chapters, and an antiquated model of disablement.

The Fifth Edition, published in 2000, represents 28 years of editions refining the methodology and guidance originally introduced with the First Edition of the *Guides* in 1972. With publication of the Sixth Edition's *Clarifications and Corrections*, the American Medical Association hopes to provide guidance on applying this new methodology (built on International Classification of Function), eliminate contradictions, and correct omissions to build on our stated goals of greater precision, standardization of the rating process, and internal consistency (6th ed, page iii). Additionally, for ease of use, the changes are provided in color, and are presented in table or text format using the original size.

If you have any questions, please email the American Medical Association (AMA) at *Guides6@ama-assn.org* or contact AMA customer service at (800) 621-8335.

For more information on other AMA impairment and disability resources, please visit *www.ama-bookstore.com*. Check out the upcoming *Guides Sixth Edition Impairment Training Workbook-Spine* (including CME) and the related series available this winter and the *Guides to the Evaluation of Disease and Injury Causation*, available now.

Thank you.

American Medical Association
Publications

For a downloadable PDF file of the *Guides to the Evaluation of Permanent Impairment*, *Sixth Edition*, *Clarifications and Corrections* document, visit the following Web site:

http://www.ama-assn.org/go/amaguidessixthedition-errata

To request an additional printed copy of the *Guides to the Evaluation of Permanent Impairment*, *Sixth Edition*, *Clarifications and Corrections* document, email your request to:

Guides6@ama-assn.org

To expedite the delivery of a printed version, please include on the **Subject** line of your email:

Print Request: Guides 6th edition Clarifications and Corrections

In your email, please include your:

Name
Street Address
City, State, Zip Code
Country
(Phone Number)
(Email Address)

Note: Changes to the original text are in red.

Chapter 1

Page 15, Right column, Paragraph 1

condition. As tests are the most objective source of data available, the results that would lead to a patient being placed in one class, as opposed to another, must be described as specifically as possible in the chapter and in the grid itself. Each chapter will delineate the key factor of the impairment class within a given grid. Tests that identify organ-specific functional deficits that are not necessarily associated with impairment in ADLs, or are predominantly obtained to develop treatment protocols or assess prognosis, should be listed in this section, as well as dynamic tests that describe organ function. For example, for cardiac disease, an ECG is a relatively static test, whereas an ejection fraction could be used for the functional assessment. Likewise, for renal disease the serum creatinine would be the objective test, whereas the creatinine clearance is more indicative of organ function. Typically, a combination of the key factor and non-key factors will be used to determine a place within a class and grade, and the key factor may vary within chapters or between chapters. Although the default rating for each class is, by definition, the median grade, the examiner can adjust this if a suitable rationale is provided.

Page 17, Reference 46

46. Anagnostis C, Gatchel RJ, Mayer TG. The pain disability questionnaire: a new psychometrically sound measure for chronic musculoskeletal disorders. *Spine.* 2004;29:2290–2303; discussion 2303.

Chapter 2

Page 19, Paragraph 1

This chapter outlines the key concepts, principles, and rationale underlying the application of the AMA *Guides* to impairment rating for all human organ systems. ~~Anything in subsequent chapters interpreted as conflicting with or modifying the content outlined herein is preempted by the rules contained in this chapter. By analogy, this chapter is the "constitution" of the *Guides*.~~

Page 19, Paragraph 2

The *Guides* is written by medical doctors for medical doctors and others permitted to do impairment evaluations. It is a tool to translate human pathology resulting from a trauma or disease process into a percentage of the whole person.

Page 23, Right Column, Paragraph 3

It must be emphasized, however, that even though the *Guides* is mainly written by ~~and for~~ medical doctors for medical doctors and others permitted to do impairment evaluations, nonphysician evaluators may analyze an impairment evaluation to determine if it was performed in accordance with the *Guides*.

Page 20, Table 2-1, Fundamental Principles of the Guides, Numbers 1, 6, 13, and 14

1. Concepts and philosophy in this chapter are the fundamental principles of the *Guides*.~~; they shall preempt anything in subsequent chapters that conflicts with or compromises these principles.~~
6. Impairment evaluation requires medical knowledge. Physicians duly recognized by an appropriate jurisdiction should perform such assessments within their applicable scope of practice and field of expertise.
13. Subjective complaints that are not clinically verifiable are generally not ratable under the *Guides*. ~~(see chapter 3, pain for potential exceptions)~~
14. Round all fractional impairment ratings, whether intermediate or final, to the nearest whole number, unless otherwise specified.

Page 25, Left Column, Paragraph 1

2.4d Pain and Suffering

The impairment ratings in the body organ system chapters make allowance for most of the functional losses accompanying pain. It should be recognized that a zero percent impairment rating in Chapters 4-17 is a numerical impairment rating. The broader impairment rating issues associated with pain are discussed in further detail in Chapter 3.

Page 29, Reference 6

6. Guidotti TL, Rose SG. Science on the witness stand: evaluating scientific evidence. In: Guidotti TL, Rose SG, eds: *Law, Adjudication, and Policy.* Beverly Farms, Mass: OEM Health Information; 2001. ~~509 US 579, 113 SCt 2786 (1993).~~

Page 30, Figure 2-3: Sample Report for Permanent Medical Impairment

Patient Name:_____ **Birthdate:**_____**Sex: M**___ **F**___
Address: _____ **Phone:** _____
ID Number: _____**Exam Date:** _____**Injury Date:**_____
Diagnosis:_____
_____

Introduction: Purpose (impairment or IME evaluation, personal injury, workers compensation) and procedures (who performed the exam, patient consent, location of examination) _____
_____
_____

History of Clinical Presentation:_____
_____

Functional History:_____
_____

Physical Examination or Physical Findings: _____
_____

Clinical Studies or Objective Test Results:_____
_____
_____

Burden of Treatment Compliance: (when applicable) _____
_____

Impairment Rating and Rationale: Organ System and Whole Person Impairment (WPI)

Body Part or System	Chapter Number, Page Number, Table Number	Key Factor and Class	Grade Modifiers for: Functional History, Physical Exam, Clinical Studies & BOTC (if applicable)	Final Class and Grade Used in Rating	Whole Person Impairment (%)
1.					
2.					
3.					

Calculated Total Whole Person Impairment: _____ **%**

Discussion of Rationale of Impairment and any Possible Inconsistencies in the Examination: _____
_____
_____

Recommendation: (Further diagnostic or therapeutic follow-up care) _____
_____
_____

Work Ability, Work Restrictions: (if requested, review abilities and limitations in reference to essential job activities) _____
_____

Examining Physician: Printed Name: _____ **Signature:** _____

Date:_____ **Examination Location:** _____

Page 43, Appendix 3-1 Pain Disability Questionnaire
Page 600, Figure 17-A Pain Disability Questionnaire (PDQ)

Patient Name: _____ **Date:** _____

Instructions: These questions ask for your views about how your pain now affects how you function in everyday activities. Please answer every question and mark the ONE number on EACH scale that best describes how you feel.

1. Does your pain interfere with your normal work inside and outside the home?
Work normally — *Unable to work at all*
0 -------- 1 -------- 2 -------- 3 -------- 4 -------- 5 -------- 6 -------- 7 -------- 8 -------- 9 -------- 10

2. Does your pain interfere with personal care (such as washing, dressing, etc.)?
Take care of myself completely — *Need help with all my personal care*
0 -------- 1 -------- 2 -------- 3 -------- 4 -------- 5 -------- 6 -------- 7 -------- 8 -------- 9 -------- 10

3. Does your pain interfere with your traveling?
Travel anywhere I like — *Only travel to see doctors*
0 -------- 1 -------- 2 -------- 3 -------- 4 -------- 5 -------- 6 -------- 7 -------- 8 -------- 9 -------- 10

4. Does your pain affect your ability to sit or stand?
No problems — *Cannot sit / stand at all*
0 -------- 1 -------- 2 -------- 3 -------- 4 -------- 5 -------- 6 -------- 7 -------- 8 -------- 9 -------- 10

5. Does your pain affect your ability to lift overhead, grasp objects, or reach for things?
No problems — *Cannot do at all*
0 -------- 1 -------- 2 -------- 3 -------- 4 -------- 5 -------- 6 -------- 7 -------- 8 -------- 9 -------- 10

6. Does your pain affect your ability to lift objects off the floor, bend, stoop, or squat?
No problems — *Cannot do at all*
0 -------- 1 -------- 2 -------- 3 -------- 4 -------- 5 -------- 6 -------- 7 -------- 8 -------- 9 -------- 10

7. Does your pain affect your ability to walk or run?
No problems — *Cannot walk / run at all*
0 -------- 1 -------- 2 -------- 3 -------- 4 -------- 5 -------- 6 -------- 7 -------- 8 -------- 9 -------- 10

8. Has your income declined since your pain began?
No decline — *Lost all income*
0 -------- 1 -------- 2 -------- 3 -------- 4 -------- 5 -------- 6 -------- 7 -------- 8 -------- 9 -------- 10

9. Do you have to take pain medication every day to control your pain?
No medication needed — *On pain medication throughout the day*
0 -------- 1 -------- 2 -------- 3 -------- 4 -------- 5 -------- 6 -------- 7 -------- 8 -------- 9 -------- 10

10. Does your pain force you to see doctors much more often than before your pain began?
Never see doctors — *See doctors weekly*
0 -------- 1 -------- 2 -------- 3 -------- 4 -------- 5 -------- 6 -------- 7 -------- 8 -------- 9 -------- 10

11. Does your pain interfere with your ability to see the people who are important to you as much as you would like?
No problem — *Never see them*
0 -------- 1 -------- 2 -------- 3 -------- 4 -------- 5 -------- 6 -------- 7 -------- 8 -------- 9 -------- 10

12. Does your pain interfere with recreational activities and hobbies that are important to you?
No interference — *Total interference*
0 -------- 1 -------- 2 -------- 3 -------- 4 -------- 5 -------- 6 -------- 7 -------- 8 -------- 9 -------- 10

13. Do you need the help of your family and friends to complete everyday tasks (including both work outside the home and housework) because of your pain?
Never need help — *Need help all the time*
0 -------- 1 -------- 2 -------- 3 -------- 4 -------- 5 -------- 6 -------- 7 -------- 8 -------- 9 -------- 10

14. Do you now feel more depressed, tense, or anxious than before your pain began?
No depression / tension — *Severe depression / tension*
0 -------- 1 -------- 2 -------- 3 -------- 4 -------- 5 -------- 6 -------- 7 -------- 8 -------- 9 -------- 10

15. Are there emotional problems caused by your pain that interfere with your family, social, and / or work activities?
No problems — *Severe problems*
0 -------- 1 -------- 2 -------- 3 -------- 4 -------- 5 -------- 6 -------- 7 -------- 8 -------- 9 -------- 10

_____
Examiner

Anagnostis C, Gatchel RJ, Mayer TG. The Pain Disability Questionnaire: A New Psychometrically Sound Measure for Chronic Musculoskeletal Disorders. Spine 2004; 29 (20): 2290-2302.

Chapter 3 and Chapter 17

Pages 43-44 and Pages 599-600

Note: The Pain Disability Questionnaire is used in Chapter 3, Pain-Related Impairment, on pages 43-44, and in Chapter 17, The Spine and Pelvis, on pages 599-600. The format in the Guides*, 6e utilizes a centimeter scale to score; however, the format is not to scale. An alternative approach provides numerical scales.*

Page 44, Appendix 3-2, Pain Disability Questionnaire (PDQ)

Administering the Pain Disability Questionnaire

Follow these instructions for administering and scoring the PDQ:

1. Reproduce the PDQ (Appendix 3-1) and ask the patient to complete all items on the questionnaire.
2. If necessary, the patient may complete the form with the assistance of a translator or reader. Be certain all 15 questions are answered. If the patient is unable to complete the PDQ, no functional assessment score will be given.
3. The evaluating doctor will score the PDQ by adding together the marked integer in each question.
4. If the patient fails to mark a question, the default score for that question is 0.
5. Apply the final score to Table 3-1 and consider this in the Steps of Assessment as described in Section 3.3d.

The PDQ scores can be divided into 5 distinct categories: *no disability* (score of 0); *mild* (scores of 1 to 70); *moderate* (scores of 71 to 100); *severe* (scores of 101 to 130); and *extreme* (scores of 131 to 150).

Chapter 4

Page 49, Table 4-2

Relationship of METs and Functional Class According to 5 Treadmill Protocols[a]

METS	1.6	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
TREADMILL TESTS																
Ellestad																
Miles per hour					1.7		3.0			4.0						5.0
% grade					10		10			10						10
Bruce																
Miles per hour					1.7		2.5			3.4				4.2		
% grade					10		12			14				16		
Balke																
Miles per hour				3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4
% grade				2	4	6	8	10	12	14	16	18	20	22	24	26
Balke																
Miles per hour			3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0				
% grade			0	2.5	5	7.5	10	12.5	15	17.5	20	22.5				
Naughton																
Miles per hour	1.0	2.0	2.0	2.0	2.0	2.0	2.0									
% grade	0	0	3.5	7	10.5	14	17.5									

METS	1.6	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
CLINICAL STATUS																
Symptomatic patients	←															→
Diseased, recovered		←														→
Sedentary healthy				←												→
Physically active					←											→
Functional class	**IV**	←	**III**	→	←	**II**	→	←			**I and Normal**					→

[a] Adapted from: Fox SM III, Naughton JP, Haskell WL. Physical activity and the prevention of coronary heart disease. *Ann Clin Res.* 1971;3:404–432.

Page 53, Table 4-5 Criteria for Rating Permanent Impairment due to Valvular Heart Disease[a]: Row 6, Columns 4 and 5

OBJECTIVE TEST RESULTS[d]	No ventricular dysfunction or dilation Trace regurgitation or mild mitral valve prolapse with trace regurgitation on echocardiogram (echo)	No ventricular dysfunction or dilation Mild stenosis or regurgitation on echo METs ≥7; Bruce protocol ≥6 min; VO_2max >20 Normal functioning prosthetic valve	Mild ventricular dysfunction or chamber dilation Moderate stenosis or regurgitation on echo METs <7 but ≥5; Bruce protocol >3 min; VO_2max 16-20 post-valvular surgery and meets above criteria BNP <100[e]; AVA >1.5; AVG <25; MVA >1.5; MVG <5	Moderate ventricular dysfunction or chamber dilation Moderate or severe stenosis or regurgitation on echo Surgical correction not feasible METs <5 but ≥2; Bruce protocol ≥1 min but <3 min post-valvular surgery and meets above criteria; VO_2max 10-15 BNP >100 but <500[e]; AVA 1.0-1.5; AVG 25-50; MVA 1.0-1.5; MVG 5-10	Severe ventricular dysfunction or chamber dilation Moderate or severe stenosis or regurgitation Surgical correction not feasible METs <2; Bruce protocol <1 min; VO_2max <10 BNP >500[e]; AVA <1.0; AVG >50; MVA <1.0; MVG >10

Page 55, Table 4-6 Criteria for Rating Impairment due to Coronary Artery Disease[a]: Row 6, Columns 4 and 5

OBJECTIVE TEST RESULTS[d]	Normal coronary angiography Normal echocardiography Equivocal or low-risk[e] myocardial perfusion scan or stress echo EBCT 0-100	Luminal irregularities on coronary angiogram (<50% stenosis) Normal echocardiography Normal or low-risk myocardial perfusion scan or stress echo EBCT >100 VO_2max>20	Obtained HR >90% maximum predicted with no ST-segment changes, VT, or hypotension METs ≥7 (may be omitted if unable to walk) Coronary angiograms shows ≥50%-70% fixed obstruction VO_2max 16-20 No or mildly reversible defect (<25%) on myocardial perfusion scan or stress echo Recovered from CABG or PCI; continues treatment	Stress testing shows 1-2mm ST-segment changes Coronary angiograms show ≥70% fixed obstruction ***and*** METs <7 but ≥5; VO_2max 10-15 ***or*** moderate (25%-50%) reversible defect on myocardial perfusion scan or stress echo Recovered from CABG or PCI, continues treatment	Stress testing shows >2 mm ST-segment changes Coronary angiograms show ≥70% fixed obstruction ***and*** METs <5; VO_2max <10 ***or*** severe (>50%) reversible defect on myocardial perfusion scan or stress echo Recovered from CABG or PCI, continues treatment

Page 59, Table 4-7 Criteria for Rating Impairment due to Cardiomyopathies[a]: Row 6, Columns 3, 4, and 5

OBJECTIVE TEST RESULTS[d]	Normal echocardiography BNP level normal	Minimally impaired LV function, minimal septal (<1.1 cm) hypertrophy or evidence of minimal restrictive disease on echocardiography (echo) Present on therapy ***and*** at least 1 of: BNP level normal VO_2max>20 METs ≥7	Mildly impaired LV function (EF 41-50%), or slight septal hypertrophy (1.1-1.2 cm), evidence of restriction, or mild diastolic dysfunction (E>A)[e] on echo Present on therapy ***and*** at least 1 of: VO_2max 16-20 METs ≥7 BNP <100	Moderately impaired LV function (EF 30-40%), or moderate septal hypertrophy (1.3-1.4 cm) with moderate gradient, or evidence of restriction or moderate diastolic dysfunction (E=A) on echo Present on therapy ***and*** at least 1 of: VO_2max 10-15 METs <7 but ≥5 BNP 100-500 Malignant ventricular dysrhythmias (post-AICD or biventricular pacemaker)	Severely impaired LV function (EF <30%), or severe gradient across septal hypertrophy (>1.4 cm), evidence of restriction or severe diastolic dysfunction (E<A) on echo Present on therapy ***and*** at least 1 of: VO_2max <10 METs <5 BNP >500 Malignant ventricular dysrhythmias (post-AICD or biventricular pacemaker)

Page 61, Table 4-8, Criteria for Rating Impairment due to Pericardial Heart Disease[a]: Row 6, Columns 3, 4, and 5

OBJECTIVE TEST RESULTS[d]	Normal echocardiography and ECG Normal ESR	One or more of the following: small pericardial effusion, evidence of pericarditis on ECG, minimally elevated ESR (<30), ***and*** at least 1 of: BNP level normal VO_2max >20 METs ≥7 ***or*** status post-pericardiectomy or surgical pericardial window	One or more of the following: mild effusion or evidence of constrictive pericarditis on echocardiography, ECG evidence of pericarditis, mildly elevated ESR (30-50) ***and*** at least 1 of: BNP <100 VO_2max 16-20 METs ≥7 ***or*** status post-pericardiectomy or surgical pericardial window	One or more of the following: moderate effusion or evidence of constrictive pericarditis on echocardiography, ECG evidence of pericarditis, moderately elevated ESR (51-70), ***and*** at least 1 of: BNP 100-500 VO_2max 10-15 METs <7 but ≥5 ***and*** failed surgical attempt or no response to surgery	One or more of the following: Severe effusion, evidence of tamponade or constrictive pericarditis with severe LV dysfunction on echocardiography, ECG evidence of pericarditis, significantly elevated ESR (>71), ***and*** at least 1 of: BNP >500 VO_2max <10 METs <5 ***and*** failed surgical attempt or no response to surgery

Page 66, Table 4-10

TABLE 4-10

Classification of Blood Pressure for Adults

Classification	Systolic	Diastolic
Normal	<120	<80%
Pre-hypertension	120-139	80-89
Stage 1 hypertension	140-159	90-99
Stage 2 hypertension	≥160	≥100

Page 69, Table 4-12 Criteria for Rating Impairment due to Peripheral Vascular Disease – Lower Extremity: Row 2, Column 1

CLASS	CLASS 0	CLASS 1	CLASS 2	CLASS 3	CLASS 4
UNILATERAL LE IMPAIRMENT RATING (%)[a]	**0**	**2%-10%**	**11%-23%**	**24%-40%**	**45%-65%**

Page 70, Table 4-13 Criteria for Rating Impairment due to Peripheral Vascular Disease – Upper Extremity: Rows 2 and 4

Row 2

CLASS	CLASS 0	CLASS 1	CLASS 2	CLASS 3	CLASS 4
UNILATERAL UE IMPAIRMENT RATING (%)	0	2%-10%	11%-23%	24%-40%	45%-65%

Row 4

HISTORY	No intermittent claudication or pain at rest or transient edema No curtailment of activity	Intermittent claudication with heavy upper extremity usage, persistent edema or pain with cold exposure	Intermittent claudication with moderate upper extremity usage or mild edema	Intermittent claudication with mild upper extremity usage or moderate edema	Severe and consistent pain at rest or severe edema

Page 71, Left Column, Example 4-27: Lower Extremity Peripheral Vascular Disease

CLASS 4
45%- 65% Impairment of the Lower Extremity

Page 71, Left Column, Example 4-27: Lower Extremity Peripheral Vascular Disease, Impairment Rating

Impairment Rating: 65% (Class 4E). According to Table 4-12, the objective test results, physical findings, and history all place the examinee in class 4E, impairment rating 65%, for each extremity, or 26% WPI for each lower extremity. As per the Combined Values Chart, page 604, whole person impairment of 45%.

Chapter 5

Page 88, Table 5-4, Criteria for Rating Permanent Impairment due to Pulmonary Dysfunction: Row 6, Columns 2, 3, 5 and 6

OBJECTIVE TESTS					
FVC	FVC ≥80% of predicted	FVC between 70% and 79% of predicted	FVC between 60% and 69% of predicted	FVC between 50% and 59% of predicted	FVC below 50% predicted
	and	***or***	***or***	***or***	***or***
FEV_1	FEV_1 ≥80% of predicted	FEV_1 between 65% and 79% of predicted	FEV_1 between 64% and 55% of predicted	FEV_1 between 45% and 54% of predicted	FEV_1 below 45% of predicted
	and				
FEV_1/FVC (%)	FEV_1/FVC (%)> lower limits of normal and/or (>75% of predicted)				
	and	***or***	***or***	***or***	***or***
DLco	DLco ≥75% of predicted	DLco between 65% and 74% of predicted	DLco between 55% and 64% of predicted	DLco between 45% and 54% of predicted	DLco below 45% of predicted
	or	***or***	***or***	***or***	***or***
$\dot{V}o_2$ max	>25mL/(kg·min) or >7.1 METs	between 22 and 25 mL/(kg·min)	between 21 and 18 mL/(kg·min)	between 17 and 15 mL/(kg·min)	<15mL/(kg·min)
		or	***or***	***or***	***or***
		6.1–7.1 METs	5.1–6.0 METs	4.3–5.0 METs	<4.3 METs

Page 90 Table 5-5, Criteria for Rating Permanent Impairment due to Asthma[a]: Row 4, Column 4

CLINICAL PARAMETERS (MINIMUM MEDICATION NEED, FREQUENCY OF ATTACKS, ETC)	No medication required	Occasional bronchodilator use (not daily use)	Daily low-dose inhaled steroid (<500 mcg per day of beclomethasone or equivalent)	Daily medium or high-dose (500 to 1000 mcg per day) inhaled steroid and/or short periods of systemic steroids and a long acting bronchodilator Daily use of steroids, systemic and inhaled, and daily use of maximum bronchodilators	Asthma not controlled by treatment

Chapter 6

Page 104, Right Column, Last sentence

choose to rate these up to a 3% whole person impairment. ~~Pain from such disorders is to be rated by the pain chapter (Chapter 3).~~

Chapter 7

Page 135, Example 7-6: Upper Urinary Tract Disease: Impairment Rating

rating of 19%. ~~See BOTC in the Appendix.~~ Combine any permanent impairment percent related to a complication such as osteoporosis if it develops with

Page 144, Table 7-6, Criteria for Rating Permanent Impairment due to Penile Disease: Row 1, Column 5, and Row 6, Footnote

TABLE 7-6 Criteria for Rating Permanent Impairment due to Penile Disease[b]

CLASS	CLASS 0	CLASS 1	CLASS 2	CLASS 3

[a] Key factor.
[b]Combine with rating for prostate disease (Table 7-9) or urinary incontinence (Bladder Disease, Table 7-4) when present.

Page 149, Table 7-9, Criteria for Rating Impairment due to Prostate Disease: Rows 1 and 4, Column 5

TABLE 7-9 Criteria for Rating Impairment due to Prostate Disease[a]

CLASS	CLASS 0	CLASS 1	CLASS 2	CLASS 3
HISTORY	No symptoms of prostatic and seminal vessel dysfunction and no treatment required	Mild to moderate signs and symptoms of prostatic dysfunction that do not require continuous treatment	Frequent moderate symptoms of prostatic dysfunction despite continuous treatment	Frequent and severe symptoms of prostatic dysfunction only partially responsive to treatment

Chapter 11

Page 250, Table 11-1, Monaural Hearing Loss and Impairment

Monaural Hearing Loss and Impairment[a]

DSHL[b]	%	DSHL[b]	%	DSHL[b]	%
100	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	48.8	325	84.4
		235	50.6	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	91.9
		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	365	99.4
180	30.0	270	63.8	≥370	100.0
		275	65.6		
185	31.9	280	67.5		

[a] Audiometers are calibrated to ANSI Standard S3.6-1996 reference levels.[4]
[b] Decibel sum of the hearing threshold levels at 500, 1000, 2000, and 3000 Hz.

Chapter 12

Page 304, Table 12-9, Correction for Central Scotomata

If the Visual Acuity Score is	100-90	89-80	79-70	69-60	59-50	≤49 or less
that is, if the VAS loss is	0-10	11-20	21-30	31-40	41-50	>50
and visual acuity is	≥20/30	≥20/50	≥20/80	≥20/125	≥20/200	<20/200
Ignore central field loss up to	___	2°	4°	6°	8°	10°

Chapter 13

Page 321, Right Column, Bullet 4:

- ~~To offer single values rather than ranges for impairment categories. Ranges implied a level of impairment rating validity that does not exist.~~

Page 322, Left Column, Paragraph 10

- Focal neuropathies are most often rated when assessing the upper and lower extremities. They have been assigned to those chapters and are not rated here. CRPS is rated in the upper and lower extremity chapters.

Page 329, Table 13-6, Criteria for Rating Impairment due to Sleep and Arousal Disorders: Row 3, Column 6

DESCRIPTION	Normal daytime alertness; no impairment of ADLs	Reduced daytime alertness; sleep pattern such that individual can perform ADLs	Reduced daytime alertness; interferes with ability to perform ADLs (eg, cannot drive)	Reduced daytime alertness; moderate impairment in ADLs	Severe reduction of daytime alertness; individual unable to care for self in any situation or manner

Page 341, Right Column, Paragraph 1

using Tables 15-26 and 16-15 in the chapters on impairment rating of the upper and lower extremities, respectively.

Page 343, Left Column, last line

facial sensation is uncommon. ~~Combine the impair-~~

Right Column, Paragraph 1

~~ment percentage for sensation loss that involves the trigeminal nerve with the estimated impairment percentage for pain or motor loss.~~ Pin, cold, and light touch are the best parameters for localization

Page 343, Table 13-19, Criteria for Rating Trigeminal or Glossopharyngeal Neuralgia: Row 4, Columns 3, 4, and 5

DESCRIPTION	No neuralgia	Mild uncontrolled facial neuralgic pain that may interfere with ADLs or mild motor loss	Moderately severe, uncontrolled facial neuralgic pain that interferes with ADLs or moderate motor loss	Severe, uncontrolled, unilateral or bilateral facial neuralgic pain that prevents performance of ADLs or severe motor loss

Chapter 14

Page 348, Right Column, Paragraph 2

contrast, the validity and interrater reliability of the major mental illnesses/disorders; mood disorders (eg, depression or mania) and schizophrenia are well established.

Page 349, Left Column, Paragraph 5

- Psychosexual disorders (sexual and gender identity).

Page 350, Partial Table 14-3, Selected Psychological Assessment Tools in Adults

Personality and Symptoms Assessment
Minnesota Multiphasic Personality Inventory (MMPI) is one of the most widely used objective tests. Developed in the 1940s, the test has been revised in the late 1980s (MMPI-2) and more recently for adolescents (MMPI-A). After the patient responds to more than 550 questions, at least 54 clinical and 10 validity scales are generated as well as a score of unanswered responses.

Millon Clinical Multiaxial Inventory (MCMI-III) uses *DSM-IV* terminology and is helpful in differentiating types of personality disorders. An adolescent inventory has also been formulated.

Personality Assessment Inventory (PAI) provides information to assist in screening, diagnosis, and treatment for psychopathology, which parallels *DSM-IV* categories. Validity scales are included.

Intellectual Assessment
Wechsler Intelligence Test: administered by trained examiner, yields verbal, performance, and full-scale IQ. There are versions for adults (Wechsler Adult Intelligence Scale–IV edition, or WAIS-IV), for children (Wechsler Intelligence Scale for Children–IV edition, or WISC-IV), and preschoolers (Wechsler Preschool and Primary Scales of Intelligence III, or WPPSI-III). In addition to the IQ score, the WAIS-IV yields 4 indices—verbal comprehension, perceptual organization, working memory, and speed of information processing—and the WISC-IV indices include verbal comprehension, perceptual organization, freedom from distractibility, and processing speed. Organic disease or preexisting learning disability may be suspected if there is: (1) a discrepancy in the full-scale IQ and premorbid function; (2) discrepancy of >15 points between the verbal IQ and performance IQ; (3) high intersubtest scatter, and (4) impaired performance on certain sections (similarities, digit symbol, block design).

Standardized tests of social adaptive behavior may also be useful in quantifying the effects of intellectual deficits.

Academic Assessment
These scales focus on academic skills: reading, spelling, writing, language, and math:

- Wide Range Achievement Test-IV (WRAT-IV): quick.
- Woodcock-Johnson III NU Tests of Achievement: most comprehensive; useful for learning disabilities.
- Wechsler Individual Achievement Test (WIAT): comprehensive; linked with Wechsler Intelligence Scales.
- Peabody Individual Achievement Test-Revised, Second Edition.

Page 355, Left Column, Paragraph 1

with many general medical diagnoses, early return to the workplace in some capacity facilitates a successful return to work.

Page 355, Left Column, Paragraph 5

The GAF constitutes Axis V of the *DSM-IV*. The GAF is a 100-point single-item rating scale for evaluating overall symptoms, occupational functioning, and social functioning. Scores from 91 to 100 measure individuals who have superior functioning without active psychopathology. Interval 81 to 90 includes individuals with minimal or no active psychopathology but function at a lesser level. Clinical psychiatrists and psychologists may indicate a GAF score in multiaxial assessment of their patients, and the scale has undergone considerable psychometric assessment in the scientific community.

Page 357, Table 14-9, Impairment Score of Brief Psychiatric Rating Scale (BPRS)

BPRS Summed Score	BPRS Impairment Score
24–30	0%
31–35	5%
36–40	10%
41–45	15%
46–50	20%
51–60	30%
61–70	40%
71–168	50%

Page 360, Right Column, Paragraph 3

ary gain. He would not consider electroconvulsive therapy, but did participate in cognitive behavioral therapy. After more than 1 year of various medicine trials, his symptoms seemed to stabilize and he was thought to have reached Maximum Medical Improvement (MMI).

Page 361, Left Column, Sentence before *Step 2*

Find the BPRS impairment score in Table 14-9: 0%.

Page 361, Right Column, Sentence after *Step 4*

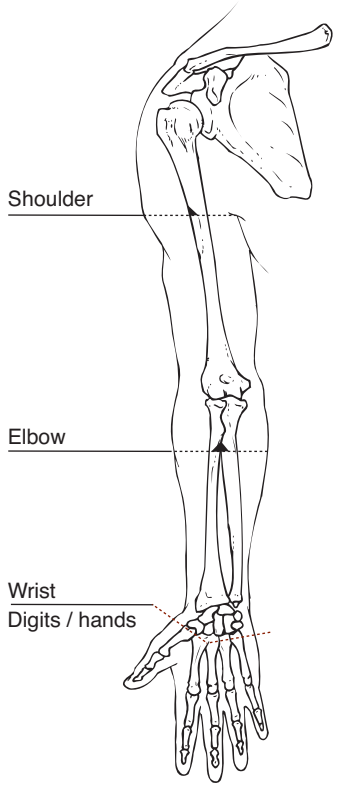
BPRS impairment score: 0%.

Page 362, Right Column, Sentence before *Step 2*

Find the BPRS impairment score in Table 14-9: 10%.

Chapter 15

Page 384, Figure 15-1



Page 387, Left Column, Paragraph 2

ment values when a grid permits its use as an option; this is a significant change from prior editions. Range of motion ratings cannot be combined with other approaches, with the exception of amputation. Complex regional pain syndrome ratings cannot be combined with other approaches.

Page 387, Right Column, Paragraph 4

and biceps tendonitis, the examiner should use the diagnosis with the highest causally-related impairment rating for the impairment calculation. Thus, when rating rotator cuff injury/impingement or glenohumeral pathology/surgery, incidental resection arthroplasty of the AC joint is not rated.

Page 389, Right Column, Paragraph 2

Selection of the optimal diagnosis requires judgment and experience. If more than 1 diagnosis can be used, the highest causally-related impairment rating should be used; this will generally be the more specific diagnosis. Typically, 1 diagnosis will adequately characterize the impairment and its impact on ADLs. Certain diagnoses may span more than 1 class; therefore, these diagnoses are associated with specific objective findings on physical examination or clinical studies to ensure placement in the appropriate class. Painful disorders in a regional grid are rated only once; it is duplicative to rate in both "soft tissue" and "muscle tendon."

Page 390, Left Column, Paragraph 3

multiple digits involved, the digit impairments at the hand level are added. Impairment cannot exceed 100% of digit. If a whole person permanent impairment is necessary, the hand impairment is converted to upper extremity impairment and ultimately to whole person impairment.

Page 390, Right Column, Paragraph 2

ligamentous, and soft-tissue structures encompassing the wrist joint. Instructions are provided in Sections 15.1 and 15.3 and involve the use of Table 15-3, Wrist Regional Grid, and the Table 15-6 adjustment grid (and associated Tables 15-7 to 15-9).

Page 397, Partial Table 15-3, Wrist Regional Grid: Upper Extremity Impairments: Row 5, Column 3

Posttraumatic degenerative joint disease* (DJD)	Posttraumatic, No residual findings: +/− surgical treatment	1 3 5 7 9 Posttraumatic DJD with documented specific injury, ~~mild~~ asymmetric arthritic changes noted on imaging	*If motion loss, may assess per Section 15.7, Range of Motion Impairment (not combined with diagnosis impairment)*		

Page 400, Table 15-4 (continued), Elbow Regional Grid: Upper Extremity Impairments: Rows 4 and 7

Posttraumatic degenerative joint disease (DJD)*	Posttraumatic, No residual findings: +/− surgical treatment	1 3 5 7 9 Posttraumatic DJD with documented specific injury, ~~mild~~ asymmetric arthritic changes noted on imaging			
Radial head (isolated) arthroplasty*		6 7 8 9 10 Normal motion 9 10 11 12 13 Complicated, unstable, or infected			

Page 402, Partial Table 15-5 (continued), Shoulder Regional Grid: Upper Extremity Impairments: Row 5

Note: These were removed because of unnecessary duplications in the Table.

~~**Rotator cuff tear or tendon rupture***~~	~~0~~ ~~No residual findings: +/− surgical treatment~~	~~3 4 5 6 7~~ ~~Residual loss, functional with normal motion~~			

Page 403, Partial Table 15-5, Shoulder Regional Grid: Upper Extremity Impairments: Row 7

Note: These were removed because of unnecessary duplications in the Table.

~~**Shoulder joint dislocation***~~	~~0~~ ~~No residual findings: +/− surgical treatment~~	~~8 9 10 11 12~~ ~~Mild: can be completely reduced manually~~	~~16 18 20 22 24~~ ~~Moderate: cannot be completely reduced manually~~	~~34 37 40 43 46~~ ~~Severe: cannot be reduced~~	

Page 404, Partial Table 15-5 (continued), Shoulder Regional Grid: Upper Extremity Impairments: Rows 4 and 5, Columns 3 and 4

Unidirectional shoulder instability*	0 No residual findings: +/− surgical treatment	4 5 6 7 8 Occult (consistent relationship of symptoms with activities and grade 1 instability) 9 10 11 12 13 Subluxing humeral head (confirmed history of acute trauma, consistent relationship of symptoms with activities, grade 2 instability)	20 22 24 25 25 Dislocating humeral head (confirmed history of acute trauma, consistent relationship of symptoms with activities, grade 3 or 4 instability)		
Multidirectional shoulder instability (excluding patients with bilateral multidirectional shoulder instability)*	0 No significant objective abnormal findings of soft-tissue injury at MMI	9 10 11 12 13 History of traumatic episode and shoulder instability demonstrated in 2 or more directions Post op patients with persistent symptoms with no instability may be rated with ROM. If ROM is normal rate by nonspecific shoulder pain*	22 23 24 25 25 Dislocating humeral head (confirmed history of acute trauma, consistent relationship of symptoms with activities, grade 3 or 4 instability)		

Page 405, Partial Table 15-5, Shoulder Regional Grid: Upper Extremity Impairments: Row 6, Column 3

Posttraumatic degenerative joint disease (DJD)*	Posttraumatic, No residual findings: +/− surgical treatment	1 3 5 7 9 Posttraumatic DJD with documented specific injury, ~~mild~~ asymmetric arthritic changes noted on imaging			

Page 405, Partial Table 15-5, Shoulder Regional Grid: Upper Extremity Impairments: Row 8, Column 1

~~Total s~~Shoulder arthroplasty*			20 22 24 25 25 Implant with normal motion	26 28 30 32 34 Resection with normal motion 34 37 40 43 46 Complicated, unstable, or infected	

Page 405, Left Column, Paragraph 1

The adjustment grid, as described in the introduction, is used to assign a grade within the class defined by the regional grid. The grade for a given class is determined by considering functional history, physical examination findings, and the results of relevant clinical studies. If a non-key factor or grade modifier was used for primary placement in the regional grid as, for example, X-ray findings in the case of carpal instability, that same specific finding may not be used again to determine the grade modifier.

Page 406, Table 15-7, Functional History Adjustment: Upper Extremities: Row 4

		AND able to perform self-care activities independently	AND able to perform self-care activities with modification but unassisted	AND requires assistance to perform self-care activities	AND unable to perform self-care activities

Page 407, Left Column, Section 15.3b, Paragraph 2

with each specific ratable condition. If a physical finding has been used to determine class placement, that specific finding should not be considered again, for example, range of motion in the upper extremity. If physical examination

Page 408, Table 15-8, Physical Examination Adjustment: Upper Extremities: Rows 8 and 10

Shoulder		Grade 1 (slight) instability; subluxable	Grade 2 (moderate) instability; easily subluxable	Grade 3 (serious) instability; dislocatable with anesthesia or sedation	

Range of Motion (reference Section 15.7)	None	Mild decrease from normal or uninjured opposite side For digit impairments only, this reflects a total digit impairment <20% digit impairment. For wrist, elbow, and shoulder this reflects a total joint impairment of <12% upper extremity impairment.	Moderate decrease from normal or uninjured opposite side For digit impairments only, this reflects a total digit impairment of 20% to 39% digit impairment. For wrist, elbow, and shoulder this reflects a total joint impairment of 12% to 23% upper extremity impairment.	Severe decrease from normal or uninjured opposite side For digit impairments only, this reflects a total digit impairment of 40% to 70% digit impairment. For wrist, elbow, and shoulder this reflects a total joint impairment of 24% to 42% upper extremity impairment.	Very severe decrease from normal or uninjured opposite side For digit impairments only, this reflects a total digit impairment >70% digit impairment. For wrist, elbow, and shoulder this reflects a total joint impairment >42% upper extremity impairment.

Page 409, Left Column, Paragraph 3

Electrodiagnostic studies should be performed ~~only~~ by a licensed physician who is qualified by education, training, and experience in these procedures. Typically, these studies are performed by board certified neurologists and physical medicine specialists. Some jurisdictions allow others to perform such studies. The studies must be performed in accordance with established standards.

Page 414, Example 15-3: Stenosing Tenosynovitis, Symptomatic, Impairment Rating

History: Grade modifier 2; Physical examination: Grade modifier 2; Clinical tests: Grade modifier not applicable (n/a). Net adjustment compared with diagnostic class is +2, assigned to grade E (highest assignment). Therefore, 8% digit impairment. Converts by Table 15-12 to 2% HI, 1% UEI, and 1% WPI.

Class 1 Example Calculation: Default for Diagnosis = 6% Digit[a]

CDX	GMFH	GMPE	GMCS
1	2	2	n/a

Net adjustment

(GMFH − CDX) (2 − 1) = 1

+ (GMPE − CDX) + (2 − 1) = 1

+ (GMCS − CDX) n/a

Net adjustment = 2

Result is class 1 adjustment +2, which equals class 1 grade E = 8% digit

Page 415, Example 15-5: Contusion

History: The man's hand and wrist were struck by a

Page 420, Table 15-11

TABLE 15-11

Impairment Values Calculated From Upper Extremity Impairment

% Impairment					
Whole Person	Upper Extremity	Hand	Thumb	Index and Middle Finger	Ring and Small Finger
0	**0**	0	0	0	0
Mild					
1	**1**	1	3	6	11
1	**2**	2	6	11	22
2	**3**	3	8	17	33
2	**4**	4	11	22	44
3	**5**	6	14	28	56
4	**6**	7	17	33	67
4	**7**	8	19	39	78
5	**8**	9	22	44	89
5	**9**	10	25	50	100
6	**10**	11	28	56	
7	**11**	12	31	60	
7	**12**	13	33	65	
8	**13**	14	36	70	
Moderate					
8	**14**	16	39	80	
9	**15**	17	42	85	
10	**16**	18	44	90	
10	**17**	19	47	95	
11	**18**	20	50	100	
11	**19**	21	53		
12	**20**	22	56		
13	**21**	23	58		
13	**22**	24	61		
14	**23**	26	64		
14	**24**	27	67		
15	**25**	28	69		
Severe					
16	**26**	29	72		
16	**27**	30	75		
17	**28**	31	78		
17	**29**	32	81		
18	**30**	33	83		
19	**31**	34	86		
19	**32**	36	89		
20	**33**	37	92		
20	**34**	38	94		
21	**35**	39	97		
22	**36**	40	100		
22	**37**	41			
23	**38**	42			
23	**39**	43			
24	**40**	44			
25	**41**	46			
25	**42**	47			
26	**43**	48			
26	**44**	49			
27	**45**	50			
28	**46**	51			
28	**47**	52			
29	**48**	53			
29	**49**	54			
30	**50**	56			

% Impairment					
Whole Person	Upper Extremity	Hand	Thumb	Index and Middle Finger	Ring and Small Finger
Very Severe					
31	**51**	57			
31	**52**	58			
32	**53**	59			
32	**54**	60			
33	**55**	61			
34	**56**	62			
34	**57**	63			
35	**58**	64			
35	**59**	65			
35	**59**	66			
36	**60**	67			
37	**61**	68			
37	**62**	69			
38	**63**	70			
38	**64**	71			
39	**65**	72			
40	**66**	73			
40	**67**	74			
41	**68**	75			
41	**68**	76			
41	**69**	77			
42	**70**	78			
43	**71**	79			
43	**72**	80			
44	**73**	81			
44	**74**	82			
45	**75**	83			
46	**76**	84			
46	**77**	85			
46	**77**	86			
47	**78**	87			
47	**79**	88			
48	**80**	89			
49	**81**	90			
49	**82**	91			
50	**83**	92			
50	**84**	93			
51	**85**	94			
52	**86**	95			
52	**86**	96			
52	**87**	97			
53	**88**	98			
53	**89**	99			
54	**90**	100			
55	**91**				
55	**92**				
56	**93**				
56	**94**				
57	**95**				
58	**96**				
58	**97**				
59	**98**				
59	**99**				
60	**100**				

Page 424, Table 15-13

TABLE 15-13

Monofilament Test Criteria

Grams of Force	Interpretation
1.65 to 2.83	Normal
3.22 to 3.61	Diminished light touch
3.84 to 4.31	Diminished protective sensation
4.56 to 6.65	Loss of protective sensation
≥6.65	No response, no sensation

Page 426, Right Column, Figure 15-5 – Legend

Digit Impairment due to Finger Amputation at Various Lengths (top scale) or Total Transverse Sensory Loss (bottom scale)

Page 428, Right Column, Example 15-14: Digital Nerve Contusion

Current Symptoms: Sensation of numbness over the ulnar aspect of her right ring finger distal

Page 429, Left Column, Example 15-14: Digital Nerve Contusion (continued)

Physical Exam: Normal, except for decreased sensation distal to ring finger DIP joint, ulnar aspect, with 2-point discrimination 18 mm.

Clinical Studies: None.

Diagnosis: Digital neuroma, ulnar digital nerve, ring finger.

Page 433, Right Column, Paragraph 3

Constant symptoms means that pain or numbness is constantly present and at least conduction block if not axon loss must be present on electrodiagnostic testing to substantiate the symptom severity.

Pages 436 – 444, Table 15-21, Peripheral Nerve Impairment: Upper Extremity Impairments. Correction in Column 2 (CLASS 0)

Note: Change all numerals in column two to 0 (zero), remove the hyphen and additional number. (Incorrect: 0-1. Correct: 0).

Page 441, Partial Table 15-21 (continued) Peripheral Nerve Impairment: Upper Extremity Impairments: Row 4 Columns 2 and 3

Musculocutaneous	0	0[a] 0[a] 1 1 1 Mild sensory deficit or mild CRPS II (objectively verified) 1 2 2 3 3 Moderate sensory deficit or moderate CRPS II (objectively verified) 3 3 4 4 4 Severe sensory deficit or severe CRPS II (objectively verified) 4 4 4 4 4 Very severe sensory deficit or very severe CRPS II (objectively verified) 0[a] 2 3 5 6 Mild motor deficit 7 8 10 11 13 Moderate motor deficit	14 14 16 17 19 Severe motor deficit 18 20 22 23 25 Very severe motor deficit		

Page 446, Left Column, Paragraph 2

Threshold values for latency and conduction velocity for specific nerves are provided in Appendix 15-B. The values necessary to qualify for a diagnosis of a specific focal nerve compromise are conservative. The criteria in Appendix 15-B must be met to make the diagnosis of focal neuropathy for impairment rating purposes.

Page 446, Right Column, Paragraph 2

Test Findings. Normal electrodiagnostic tests fail to meet the definitions necessary to permit a diagnosis of focal nerve compromise for the purpose of impairment rating (Appendix 15-B). Electromyographers use different, nonstandardized definitions of normal. A physician may for treatment purposes, choose to accept an electromyographer's report interpreting a study as abnormal and consistent with focal neuropathy. However, unless the study meets the criteria listed in Appendix 15-B, it is considered a normal study for the purpose of impairment rating. The interpretation of findings for specific entrapment syndromes is provided in Appendix 15-B, Electrodiagnostic Evaluation of Entrapment Syndromes.

Page 446, Right Column, Paragraph 3

Latencies and conduction velocities that are slower than those in Appendix 15-B qualify as conduction delay for the purpose of impairment rating. Upper limb temperature must be stated in the report and must be at least 32°C.

Page 447, Left Column, Paragraph 1

latencies for the nerve supplying that muscle suggests misinterpretation of the potentials seen on EMG. It is, therefore, not sufficient for the diagnosis of a focal neuropathy syndrome for the purpose of impairment rating.

Page 449, Partial Table 15-23, Row 3, Column 2

HISTORY	Asymptomatic	Mild intermittent symptoms	Significant intermittent symptoms	Constant symptoms	NA

Page 450, Right Column, Paragraph 5

For ulnar nerve entrapment, test findings are grade modifier 2 (conduction block), history is constant symptoms, but only conduction block is present on nerve conduction testing, so grade 2 is the highest permitted grade. Physical findings are grade modifier 2 (decreased sensation). The grade modifiers total 6 (2 + 2 + 2) and average 2. Therefore, grade modifier 2 is selected with a default of 5% UEI. The *Quick*DASH is 32 (mild), therefore, for grade modifier the lowest value for that grade is selected and the impairment is 4% UEI for the ulnar nerve.

Page 451, Right Column, Paragraph 6

The steps in assessing CRPS type 1 impairment are as follows:

Page 456, Table 15-27

TABLE 15-27

Level of Amputation

Amputation Level (%)	Hand	Upper Extremity	Whole Person
Metacarpal ray loss – CMC thumb	42	38	23
Distal half of index or middle metacarpal	21	19	11
CMC of index or middle ray	22	20	12
Distal half of ring or little metacarpal	12	11	7
CMC of ring or little ray	13	12	7

Note: CMC indicates carpometacarpal.

Page 458, Right Column, Example 15-22

At the time of current evaluation, the patient has a neuroma in the distribution of the ulnar digital nerve of the little finger; grip strength is decreased.

Page 459, Left Column, Example 15-22, Continued

Impairment Rating: Per Figure 15-10, an amputation through the metacarpal shaft of the little finger

Comment: An alternative is to not rate the neuroma, but rather to rate the amputation from Table 15-29 with adjustments.

Page 459, Left Column, Paragraph 6

rologic loss cannot exceed 100% of the hand. Upper extremity impairments determined by combining impairments for amputation, loss of motion, and neurologic loss cannot exceed 100% of the upper extremity.

Page 459, Right Column, Example 15-23, last line

these 2 values is still 92% UEI or 55% WPI.

Page 464, Right Column, Paragraph 1

The actual measured goniometer readings ~~or linear measurements~~ are rounded to end in 0 and are then recorded.

Page 466, Right Column, Paragraph 5

The relative value of this functional unit is 45% of the thumb. The normal range of opposition is from 0 to 8 cm. However, in smaller hands, the normal distance of opposition can be slightly smaller. Both sides are measured and compared. If the contralateral "normal" hand opposition distance is smaller by 2 cm (total distance 6 cm or less), the impairment value corresponding to the uninvolved side (assuming no prior injury of that side) serves as a baseline, and 5% thumb impairment is subtracted from the impairments listed in Figure 15-20. This adjustment should be stated in the report.

Page 470, Partial Table 15-31, Finger Range of Motion: Row 10, Columns 4 and 5

PIP	80% Finger					
Flexion	Motion° = % Digit Impairment (% DI)	≥100° = 0%	90° = 6% DI 50° to 80° = 21% DI	20° to 40° = 42% DI	≤10° = 54% DI	−40° = 50% DI +10° to −10° or −50° to −70° = 60% DBI ≥+20° or ≤−80° = 80% DI
Extension		≥0° = 0%	−10° lag = 3% DI	−20° to −50° lag = 14% DI	≥−60° lag = 58% DI	

Page 471, Right Column, Paragraph 5

Normal range of forearm motion is from 70° of supination to 80° of pronation. The position of function is 20° of pronation. The relative value of this motion unit is 28% of upper extremity function.

Page 472, Right Column, Paragraph 6

Shoulder Abduction and Adduction

Normal range of shoulder motion is from 170° of abduction to 40° of adduction. The positions of func-

Page 472, Right Column, Paragraph 11

Shoulder Internal and External Rotation

Normal range of shoulder motion is from 80° of internal rotation to 60° of external rotation.

Page 473, Partial Table 15-32, Wrist Range of Motion

Joint						
Wrist	70% Wrist					
Flexion	Motion° = % Upper Extremity Impairment (% UEI)	≥60° = 0%	30° to 50° = 3% UEI	20° = 7% UEI	≤10° = 9% UEI	−10° to + 10° = 21% UEI +20° to +40° or −20° to −40° = 25% UEI ≥+50° or ≤−50° = 40% UEI
Extension		≥60° = 0%	30° to 50° = 3% UEI	20° = 7% UEI	≤10° = 9% UEI	
Wrist	30% Wrist					
Radial Deviation	Motion° = % Upper Extremity Impairment (% UEI)	≥20° = 0%	10° = 2% UEI	0° = 4% UEI	≥10° ulnar deviation = 12% UEI	0° to 10° ulnar deviation = 9% UEI 10° radial deviation or 20° ulnar deviation = 14% UEI ≥20° radial deviation or ≥30° ulnar deviation = 18% UEI
Ulnar Deviation		≥30° = 0%	20° = 2% UEI	10° to 0 ° = 4% UEI	≥10° radial deviation = 12% UEI	

Page 474, Partial Table 15-33, Elbow/Forearm Range of Motion: Row 10, Columns 3 and 4

Forearm	40% Elbow					
Pronation	Motion° = % Upper Extremity Impairment (% UEI)	≥80° = 0%	70° to 50° = 1% UEI	40° to 20° = 3% UEI	≤10° = 10% UEI	20° pronation = 8% UEI 30° to 60° pronation or 10° pronation to 20° supination = 15% UEI ≥70° pronation or ≥30° supination = 25% UEI
Supination		≥70° = 0%	60° to 50° = 1% UEI	40° to 20° = 2% UEI	≤10° = 10% UEI	

Page 474, Right Column, Paragraph 1

ference between the range of motion grade modifier and the functional history grade modifier.

Page 474, Right Column, Paragraph 3

history net modifier times 10% times the total motion impairment. With the above example, if the range of motion impairment was 10% upper extremity impairment (class 1), the functional history grade (class 3) and

Page 476, Right Column, Paragraph 1

the net modifier 2, the increase is 10% (net modifier) times 10% (impairment), or a 1% increase, which should be added to the 10% impairment rating for a final 11% upper extremity impairment. Note that 10% is not an add-on of 10%, rather it is a multiplier used in conjunction with the functional history net modifier and the total impairment.

Page 475, Partial Table 15-34, Shoulder Range of Motion, Row 9, Column 7

Shoulder	30% Shoulder					
Abduction	Motion° = % Upper Extremity Impairment (% UEI)	≥170° = 0%	90° to 160° = 3% UEI	20° to 80° = 6% UEI	≤10° = 10% UEI	20° to 50° of abduction = 9% UEI ≤10° or ≥60° abduction = 16% UEI
Adduction		≥40° = 0%	10° to 30° = 1% UEI	0° to 30° abduction = 2% UEI	≥40° abduction = 10% UEI	

Page 477, Example 15-24, Continued, Left Column

Physical Exam: Examination is only remarkable for her motion deficits secondary to the scarred digits; thumb and index. She retains protective sensation in these digits. Thumb - IP joint ankylosed at 20°; MCP - flexion to 40° and extension to -30°; CMC joint opposition at 4cm, radial abduction to 20° and adduction to 5cm. Index finger ~~DIP ankylosed at 30°;~~ DIP ankylosed at 20° of flexion; PIP ankylosed at 60° of flexion; MCP flexion limited to 70° and extension limited to 0°. Motion deficits were reproducible and consistent with other documentation.

Chapter 16

Page 493, New Insert, Left Column, bottom of page

Note: All references to "radiographic" are to be inclusive of other "imaging" studies.

Page 496, Left Column, Paragraph 1

- Grade modifier 0: no demonstrable interference with function.
- Grade modifier 1: interference with the vigorous or extreme use of the limb only.
- Grade modifier 2: antalgic limp that limits ambulation distance; or regularly uses orthotic device (at least ankle-foot orthosis).
- Grade modifier 3: an antalgic limp; routine use of 2 canes, or 2 crutches, or knee-ankle-foot orthosis.
- Grade modifier 4: non-ambulatory.

Page 497, Right Column, Paragraph 5

This process is repeated for each separate diagnosis in each limb involved. In most cases, only 1 diagnosis in a region (ie, hip, knee and/or foot/ankle) will be appropriate. If a patient has 2 significant diagnoses, for instance, ankle instability and posterior tibial tendonitis, the examiner should use the diagnosis with the highest impairment rating in that region that is causally-related for the impairment calculation. If an examiner is routinely using multiple diagnoses without objective supporting data, the validity and reliability of the evaluation may be questioned.

Page 499, Right Column, Paragraph 2

Selecting the optimal diagnosis requires judgment and experience. If assignment to a class is determined by severity of ROM deficit (ie, normal, mild, moderate, severe, very severe), this severity is determined using Sec. 16.7 ROM Impairment. If more than 1 diagnosis in a region (ie, hip, knee and/or foot/ankle) can be used, the 1 that provides the most clinically accurate and causally-related impairment rating should be used; this will generally be the more specific diagnosis. Typically, 1 diagnosis will adequately characterize the impairment and its impact on ADLs. Certain diagnoses may span more than 1 class; therefore, these diagnoses are associated with specific objective findings on physical examination or clinical studies to ensure placement in the appropriate class.

Page 500, Left Column, Paragraph 1

When this is the case, those same findings may not be used as grade modifiers to adjust the rating. Range of motion will, in some cases, serve as an alternative approach to rating impairment. It is not combined with the diagnosis-based impairment, and stands alone as an impairment rating.

Page 508, Partial Table 16-2 (continued) Foot and Ankle Regional Grid – Lower Extremity Impairments: Rows 7 and 8, Columns 4, 5, and 6

Ankle		7 8 10 12 13 Neutral position	16 18 20 22 24 Mild malalignment (dorsiflexion 10–19°, plantar flexion 10–19°, varus position 5–9°, valgus position 5–9°, internal malrotation 0–9°, or external malrotation 15–19°)	26 28 30 32 34 Moderate malalignment (dorsiflexion >19°, plantar flexion 20–29°, varus position 10–19°, valgus position 10-19°, internal malrotation 10–29°, or external malrotation 20–39°) or non-union	52 56 60 64 68 Severe malalignment (plantar flexion varus position >19°, valgus position >19°, internal malrotation >29°, or external malrotation >39°) or infected non-union
Subtalar		7 8 10 12 13 Neutral position (equal to opposite normal side)	16 18 20 22 24 Mild malalignment (varus position, 1°–3° greater than the opposite normal or valgus 5–9° greater)	26 28 30 32 34 Moderate malalignment (varus position, 4°–6° greater than the opposite normal or valgus 10–14° greater)	52 56 60 64 68 Severe malalignment (varus position, >6° greater than the opposite normal or valgus >14° greater)

Page 509, Partial Table 16-3 Knee Regional Grid – Lower Extremity Impairments: Row 11, Column 3

LIGAMENT / BONE / JOINT		**Do not use with PE stability**	**Do not use with PE stability**		
Meniscal injury		1 2 2 2 3 Partial (medial or lateral) meniscectomy, meniscal tear, or meniscal repair 5 6 7 8 9 Total meniscectomy (medial or lateral) or meniscal transplant (allograft) 7 8 10 12 13 Partial (medial and lateral)	19 20 22 24 25 Total (medial and lateral)		

Page 510, Partial Table 16-3 (continued) Knee Regional Grid – Lower Extremity Impairments: Rows 13 and 15, Columns 4 and 5

Supracondylar or intercondylar fracture	0 Non-displaced, with no significant objective abnormal findings at MMI	3 4 5 6 7 Non-displaced with abnormal examination findings 7 8 10 12 13 5°–9° angulation	19 20 22 24 25 10°–19° angulation	31 34 37 40 43 20°+ angulation or > 2 mm articular surface step off	52 56 60 64 68 Non-union and/or infected
Patellar fracture	0 Non-displaced, with no significant objective abnormal findings at MMI	5 6 7 8 9 Non-displaced with abnormal examination findings 7 8 10 12 13 Articular surface displaced 3 mm or less	14 15 16 17 18 Displaced with nonunion		
Tibial plateau fracture	0 Non-displaced, with no significant objective abnormal findings at MMI	3 4 5 6 7 Non-displaced with abnormal examination findings 7 8 10 12 13 < 9° angulation	19 20 22 24 25 10°–19° angulation or ≤2 mm articular surface step off	31 34 37 40 43 20°+ angulation or > 2 mm articular surface step off	52 56 60 64 68 Non-union and/or infected, or severe comminuted, displaced

Page 513, Partial Table 16-4 (continued), Hip Regional Grid – Lower Extremity Impairments: Row 7, Columns 3, 4 and 5

Avascular necrosis		7 8 10 12 13 Avascular necrosis of hip with mild range of motion deficit	14 15 16 17 18 Avascular necrosis of hip with moderate range of motion deficit	26 28 30 32 34 Avascular necrosis of hip with severe range of motion deficit	

Page 515, Partial Table 16-4 (continued), Hip Regional Grid – Lower Extremity Impairments: Row 7, Columns 1 and 4

Partial or total hip replacement			21 23 25 25 25 Good result (good position, stable, functional)	31 34 37 40 43 Fair result (fair position, mild instability and/or mild motion deficit)	59 63 67 71 75 Poor result (poor position, moderate to severe instability, and/or moderate to severe motion deficit) 67 71 75 79 83 Poor result with chronic infection

Page 516, Right Column, Paragraph 1

the examiner in defining the grade for functional history and does not serve as a basis for defining further impairment nor does the score reflect an impairment percentage (see Table 16-6).

Page 517, Left Column, Paragraph 2

each specific ratable condition. If a physical finding, for example, range of motion, has been used to determine class placement, that specific finding should not be used to select a grade modifier. If physical examination findings are determined to be unreliable or inconsistent, or they are for conditions unrelated to the condition being rated, they

Page 517, Partial Table 16-7, Physical Examination Adjustment – Lower Extremities: Row 5, Column 6

KNEE		Grade 1 Lachman's test; slight laxity patellar mechanism	Grade 2 Lachman's test; moderate laxity patellar mechanism	Grade 3 Lachman's test; severe laxity patellar mechanism	Multi-directional instability

Page 518, Left Column, Paragraph 1

The total values for the foot/ankle, knee, or hip are compared to the criteria in Section 16-7, Range of Motion Impairment, to define the range of motion grade modifier. Range of motion impairment is not combined with the diagnosed-based impairment.

Page 518, Left Column, Paragraph 3

patella and compared a similar measure on the other thigh. Calf circumference is compared at the level of maximum circumference bilaterally. Neither limb

Page 518, Left Column, Paragraph 4

it with the opposite side. Teleroentgenography is recommended. If surface measurements with a tape measure from the anterior superior iliac spine to medial malleolus are used, they should be repeated 3 times and averaged to reduce measurement error.

Page 518, Left Column, Paragraph 5

must be reliable and pertinent. For adjustment purposes, findings at MMI are used.

Page 519, Partial Table 16-8, Clinical Studies Adjustment – Lower Extremities: Rows 5 and 6, Columns 3, 4, and 5

ARTHRITIS *Note:* Do not use when X-ray cartilage interval is used in diagnostic impairment definition		Cartilage interval normal or less than 25% loss compared to opposite uninjured side; cystic changes on 1 side of joint; loose body <5 mm	Cartilage interval present; however, 25% to 50% loss compared to opposite uninjured side; cystic changes on both sides of joint; loose body 5 mm or greater or multiple loose bodies; radiographic evidence of mild posttraumatic arthrosis or avascular necrosis	Cartilage interval present; however, >50% lost compared to opposite uninjured side; radiographic evidence of moderate posttraumatic arthrosis or avascular necrosis	No cartilage interval; radiographic evidence of severe posttraumatic arthrosis or avascular necrosis
STABILITY Foot/Ankle *Note:* Do not use when X-ray stress opening is used in diagnostic impairment definition		AP stress radiograph: 2- to 3-mm excess opening or 5°–9° varus opening compared to normal opposite side	AP stress radiograph: 4- to 6-mm excess translation or 10–15° varus opening compared to normal opposite side Lateral stress radiograph: anterior drawer 4- to 6-mm excess translation compared to normal side	AP stress radiographs: >6-mm excess translation or >15° varus opening compared to normal opposite side Lateral stress radiograph: anterior drawer >6-mm excess translation compared to normal side	

Page 523, Example 16-3, Ankle Instability: Impairment Rating

value of 5% LEI. Adjustment grids: Functional history: Grade modifier 1; Physical exam: grade 1, either by tenderness or by instability; Clinical studies: not applicable, used in class assignment. Net adjustment compared to diagnostic class is 0, remains grade C. Therefore remains at the default of 5% LEI or 2% WPI.

Page 524, Partial Example 16-5: Ankle Arthritis, Clinical Studies

Clinical Studies: X rays reveal total loss of the ankle joint space interval on the right with a normal 4 mm joint space interval on the left.

Page 524, Partial Example 16-5: Ankle Arthritis, Impairment Rating

findings consistent with moderate ~~to severe~~ motion deficits and/or moderate malalignment, refer to Table 16-22, Ankle Motion Impairments and Table 16-25,

Page 525, Example 16-6: S/P Total Ankle Replacement With Poor Result

History
and regular use of a cane.
Physical Exam
She has 3.5 cm atrophy of her right calf compared with the left. The ankle is stable without deformity.
Clinical Studies: X rays show ankle replacement in good position, but heterotopic bone which limits ankle motion.
Comment: For ankle replacement the class is determined by findings of position (good), stability (normal), and range of motion (moderately reduced), which results in a poor result, and a class 4 assignment.
Impairment Rating: Class 4 results in a midrange default impairment value of 67% LEI. Since class 4 is being used, each adjustment is increased by +1. Adjustments: Functional history; regular use of a cane is grade 2, which is increased to grade 3. Physical exam: Range of motion is the same as in Example 16-5, but was used in class placement. Calf atrophy is grade 2, which is increased to grade 3. Clinical studies: X ray at MMI showing heterotopic bone limiting motion is grade 3, which is increased to grade 4. Numerical adjustment: –2. Moved 2 positions to the left (grade A). Regional impairment: 59% LEI or 24% WPI.

Page 525, Example 16-8, Meniscal Tear: Clinical Studies

Clinical Studies: MRI showed medial meniscal tear, and mild patellofemoral chondromalacia.

Page 526, Example 16-8, Meniscal Tear (continued): Impairment Rating

Grade modifier 0; Clinical studies: Grade 1 (chondromalacia). With 2 grade modifier 0, adjustments moved 2 to the left of midrange default resulting in grade A and final rating of 1% LEI and converts to 1% WPI.

Page 526, Example 16-10: Subluxing Patella: History and Physical Exam

History
knee hurts in the front most of the time, especially when climbing stairs. She has an antalgic limp despite use of a patellar tracking brace.

Physical Exam
the knee flexed. No effusion is palpable. There is 2.5 cm of thigh atrophy.

Page 526, Partial Example 16-9: S/P Anterior Cruciate Reconstruction and Medial Meniscus Repair

Physical Exam: 5° flexion contracture, normal flexion and no effusion. "Give way" weakness of his quadriceps and no atrophy. There is mild laxity of the ACL. His gait was unremarkable when exiting the examination room.

Clinical Studies: Current weight-bearing X rays show bioabsorbable fixation of the ACL in good position with a normal 5 mm joint space in all 3 compartments.

Comment: The methodology requires the examiner to pick one diagnosis for the region. The anterior instability diagnosis was chosen, and the effect of the meniscal tear is reflected in the adjustments.

Impairment Rating: Diagnosis: "cruciate or collateral ligament injury" with mild instability assigned to class 1 with a default value of 10% LEI. Functional history judged unreliable in the presence of only mild instability and no atrophy, and thus not used in rating. Physical exam instability not used as a grade modifier since stability was used in class assignment. No atrophy would be grade 0, but 5° flexion contracture would be rated at 10% LEI by Table 16-23, and Table 16-25 indicates a 10% LEI rating would be a mild degree of problem, or a grade 1 modifier from Table 16-7. The anterior cruciate reconstruction, in good position without joint space narrowing on current weight-bearing X rays, by itself would be a grade 1, mild pathology adjustment. The presence of the meniscal tear and subsequent repair (documented in the operation report) would justify moving up a grade to grade 2 for the final clinical studies adjustment. The net adjustment is +1, so class 1, grade D, or 12% LEI is the final rating.

Page 527, Example 16-10: Subluxing Patella (continued): Impairment Rating

Adjustment grids: Function: Grade 2 (antalgic limp despite bracing); Exam: Grade 2 (atrophy); Clinical studies: Grade 2 (chondromalacia). Adjustments are consistent with the class 2 assignment for diagnoses, midrange default used resulting in final rating of 16% LEI which converts to 6% WPI.

Page 527, Partial Example 16-11: S/P Total Knee Replacement, With Apportionment: Left Column

Physical Exam: Weight is 101.2 kg (225 lb) and height is 157.5 cm (5 ft 2 in). She can flex her right knee to 80° and has an extension lag of 5°. Her right knee is stable, quadriceps strength is 4+/5 and there is 2 cm atrophy of the quadriceps on the right compared with the left. Exam of the left knee is normal.

Clinical Studies: X rays on the right show a well-aligned knee replacement without loosening. X rays performed on the left at the time of the examination revealed 2 mm cartilage interval.

Page 527, Partial Example 16-11: S/P Total Knee Replacement, With Apportionment, Right Column

Impairment Rating: Right Knee: Regional impairments: Diagnosis "s/p total knee replacement" and per criteria of "fair result" assigned to class 3 with midrange default value of 37% LEI. Adjustment grids: Functional history: Grade modifier 2 difficulty on stairs; Physical examination: Grade modifier 1 (based on either atrophy or weakness; ROM would be grade modifier 2, but motion was used in assigning class); Clinical studies: Grade modifier 2 (implant in good position). Net adjustment is minus 4, thus, grade A. Regional impairment 31% LEI.

Left knee: Regional Impairments: Diagnosis: "knee arthritis" and per criteria of "2 mm cartilage interval" assigned to class 2 with midrange default value of 20% LEI. Adjustment grids: Functional history: Grade modifier 1; Physical examination: Grade modifier 0; Clinical studies: Not applicable, used to assign class. Net adjustment compared to diagnostic class 2 is −3 (ie, functional history was 1 less than the diagnosis class 2, physical examination was 2 less, and clinical studies not applicable). Therefore, moved 2 to the left resulting in 16% LEI or 6% WPI.

Apportionment: Using the left knee as her normal, the 16% LEI is subtracted from the right knee impairment of 31% LEI resulting in 15% LEI, which is attributed to her work-related injury. This converts to 6% WPI.

Class 3 Example Calculation

CDX	GMFH	GMPE	GMCS
3	2	1	2

Right knee

(2 − 3) −1
+ (1 − 3) −2
+ (2 − 3) −1
Net adjustment = −4

Adjustment of −4 results in default grade A

Class 3, grade A = 31%

CDX	GMFH	GMPE	GMCS
2	**1**	**0**	**N/A**

Left knee (1 − 2) −1
+ (0 − 2) −2
Net adjustment = −3

Adjustment of −3 equals 2 positions to the left of the default grade C which equals grade A

Class 3, grade A = 16%

Apportionment: 31% (right knee) − 16% (left knee) = 15%

Page 528, Partial Example 16-12: Knee Arthritis, Physical Exam

There is 4/5 weakness on extension of the knee and 3 cm atrophy of the left thigh compared to the right.

Page 528, Partial Example 16-12: Knee Arthritis, Impairment Rating

Impairment Rating: Regional impairment: Diagnosis: "arthritis" and per criteria of "no cartilage interval" assigned to class 4 with midrange default value of 50% LEI. Adjustment grids: Functional history grade 2 modifier (frequent use of cane), with +1 added since class is 4. Physical exam grade modifier 3 (range of motion is grade 3, atrophy is grade 2, weakness is grade 1) with +1 added because class 4 impairment. Clinical studies not applicable, used in class assignment. Numerical adjustment: –1 position moved 1 to the left, at grade B; however, the minimum LEI for class 4 is 50% (see grid) and therefore impairment is unchanged. Regional impairment: 50% LEI or 20% WPI.

Class 4 Example Calculation

CDX	GMFH	GMPE	GMCS
4	3	4	N/A

(3 − 4) = −1
(4 − 4) = 0
Net adjustment = −1

Adjustment of −1 equals 1 position to the left of default grade C resulting in grade B

Class 4, grade B = 50%

Page 532, Left Column, Paragraph 4

Sensory deficits can be challenging to grade, since the clinical examination is based on subjective reports by the patient. Grading is based on the results of sensibility testing by light touch and sharp/dull discrimination.

Page 532, Left Column, Paragraph 5

moving or constant. ~~Instruments designed to control the force and velocity of two-point or monofilament application and of other stimuli are not yet available.~~ The examiner's experience, attention to detail, and adherence to methods of administration can minimize the effects of the above variables.

Page 532, Right Column, Paragraphs 1-4

All clinical studies used to examine the degree of functional loss of sensibility are related to cutaneous touch-pressure sensation. The examiner's fingertip or a cotton tipped applicator can be used to assess light touch. Sharp/dull recognition and protective sensation can be assessed using a disposable pin. The pinprick test can be useful to determine whether protective sensation is intact and to identify discrepancies between dermatomal findings and reported symptoms. More accurate assessment is obtained by using the sharp and dull sides of the pin at random. Vibration testing has yet to be associated with functional levels of sensibility.

The sensory exam results should conform to the cutaneous distribution of a peripheral nerve, or a branch of a peripheral nerve. The sensory exam should be classified into one of five categories. Severity grade 0 is normal sensibility and sensation. Severity grade 1 is subjectively altered sensory perception but retained light touch and sharp/dull recognition. In this grade the patient correctly reports each time he/she is touched, but stimuli are perceived as subjectively abnormal (paresthesia-like), but in only the distribution of a particular cutaneous nerve. Severity grade 2 is impaired light touch, but retained sharp/dull recognition. This means several of the light touch stimuli are not felt by the patient, but sharp and dull stimuli are consistently recognized correctly. Severity grade 3 is impaired sharp/dull recognition, but retained protective sensibility. In this grade. light touch recognition is severely impaired, and sharp/dull discrimination is absent, but the sharp side of the pin is recognized as touching the patient, and protective sensation is still present, as recognized by the absence of blisters, burns, abrasions, scars, etc from unrecognized trauma or repetitive activity. Severity grade 4 sensation is absent sensation and no protective sensibility. There should be no recognition of light touch and no recognition of touch with the sharp side of the pin, and there will usually be signs of skin injury (blisters, scars, burns, abrasions, etc).

If nerve conduction testing has been done, there should be at least major sensory conduction block if the physical exam is consistent with sensory severity grade 3, and there should be axon loss or no recordable sensory nerve action potential (SNAP) if the physical exam is consistent with sensory grade 4 severity.

Page 533, Left Column, Paragraph 1, 1st line

~~bility is normal.~~ Individuals with severe deficits have decreased protective sensibility, which is defined as a conscious appreciation of pain, temperature, or pressure before tissue damage results from the stimulus. Individuals with very severe or complete deficit have no protective sensibility.

Page 533, Partial Table 16-11, Sensory and Motor Severity, Row 3, Columns 3-6

Sensory Deficit	Normal sensibility and sensation ~~Normal monofilament and normal 2-point discrimination~~	Subjectively altered sensory perception but retained light touch and sharp/dull recognition	Impaired light touch, but retained sharp/dull recognition	Impaired sharp/dull recognition, but retained protective sensibility	Absent sensation and no protective sensibility

Page 534, Partial Table 16-12, Peripheral Nerve Impairment – Lower Extremity Impairments, Row 1

Note: Classification of degree of deficit must be based on results of specific evaluation as explained in Section 16.4b and the use of Table 16.11 Sensory and Motor Severity. The examiner must document specific results of sensory testing (sensibility ~~and two point discrimination~~) and motor assessment.

Page 534, Partial Table 16-12, Peripheral Nerve Impairment – Lower Extremity Impairments: Row 12, Column 3

Obturator	0 No objective motor deficits	0 1 1 2 2 Mild motor or sensory deficit 2 3 3 3 4 Moderate motor or moderate or greater sensory deficit 4 4 5 5 5 Severe motor deficit 6 6 7 7 7 Very severe motor deficit			

Page 535, Partial Table 16-12 (continued), Peripheral Nerve Impairment – Lower Extremity Impairments: Rows 5, 7, and 9, Columns 3 and 5

Row 5

Inferior Gluteal	0 No objective motor deficits	1 3 5 7 9 Mild motor deficit	14 14 14 17 19 Moderate motor deficit 19 21 23 25 25 Severe motor deficit	28 30 33 35 37 Very severe motor deficit	

Row 7

Femoral	0 No objective sensory or motor deficits	1 1 1 2 2 Sensory deficit or CRPS II (objectively verified) 1 3 5 7 9 Mild motor deficit	14 14 14 17 19 Moderate motor deficit 19 21 23 25 25 Severe motor deficit	28 30 33 35 37 Very severe motor deficit	

Row 9

Common Peroneal	0 No objective sensory or motor deficits	1 2 3 4 5 Sensory deficit or ~~mild~~ CRPS II (objectively verified)	14 15 16 19 21 Moderate motor deficit	26 26 26 29 32 Severe motor deficit 33 35 37 39 42 Very severe motor deficit	

Page 538, Partial Example 16-16: Femoral Neuropathy, Physical Exam and Impairment Rating

Physical Exam: Decreased light touch perception in leg in the distribution of the saphaneous nerve (the distal sensory branch of the femoral nerve) with intact sharp/dull perception. The area of skin along the medial leg has retained sharp/dull perception. ~~Blisters on the medial malleolus from his shoe rubbing on the area where the skin has decreased sensation.~~ Quadriceps strength is grade 4/5.

(Impairment Rating)
and sensory. For sensory deficit the impairment is 2% LE and for the motor deficit the impairment is 7% LEI. The combined impairment is 9% LEI which is equivalent to 4% WPI.

(Class 1 Example Calculation Box, last three lines)
Class 1, grade D = 2% sensory deficit
Motor deficit = 7%
7% + 2% = 9%

Page 540, Left Column, Paragraph 2

The steps in assessing CRPS type I impairment are:

Page 541, Table 16-15, Row 3, Column 2

0% LE

Page 542, Right Column

Amputation impairment is based on the level of the amputation with adjustments for proximal problems reflected by functional history, physical examination, and clinical studies, unless the proximal problems qualify for separate impairments (diagnosis, range of motion, or nerve injury). Table

assignment to grade D or grade E. These adjustments are performed as outlined in Section 16.3. The amputation impairment may be combined with proximal diagnosed-based impairments or proximal range of motion impairments; the examiner must explain the rationale for combining. Impairment for amputation can never exceed 100% lower extremity.

Page 544, Left Column Paragraph 4

Both extremities should be compared. If the contralateral joint is uninjured it may serve as defining

Page 544, Right Column Paragraph 2

motion in the lower extremity. The ranges listed in Tables 16-18 to 16-24 define the severity of impairment (mild, moderate, severe) for lower extremity

Page 544, Right Column Paragraph 4

1 or 2. The impairment is increased by multiplying the functional history net modifier 10% by the total motion impairment. With the above example, if the range of motion impairment was 10% LEI (class 1), the functional grade (class 3) and the net modifier 2,

Page 548, Left Column, Paragraph 1

the increase is ~~2 (net modifier)~~ 10% (modification percentage) × 10% LEI (the calculated range of motion impairment) or 1% LEI.

Page 548, Left Column, Number 2

2. Compare results to criteria in Tables 16-18 to

Page 549, Table 16-24, Hip Motion Impairments – Lower Extremity Impairment, Row 9, Column 1

Adduction

Page 550, Table 16-25 Range of Motion ICF Classification: Rows 4-9

Note: Rows were removed to simplify this Table and to provide consistency with the Upper Extremity.

~~LESSER TOE~~	~~0~~ ~~No motion deficits~~	~~2 4 6~~ ~~LEI based on Table 16-18~~			
~~GREATER TOE~~	~~0~~ ~~No motion deficits~~	~~2 5 7~~ ~~LEI based on Table 16-19~~			
~~HINDFOOT~~	~~0~~ ~~No motion deficits~~	~~2 4 5 7~~ ~~LEI based on Table 16-20 and Table 16-21~~	~~14 17 19 24 25~~ ~~LEI based on Table 16-20 and Table 16-21~~	~~27 30 32~~ ~~LEI based on Table 16-20 and Table 16-21~~	~~50 52 55 57~~ ~~LEI based on Table 16-20 and Table 16-21~~
~~ANKLE~~	~~0~~ ~~No motion deficits~~	~~7 12~~ ~~LEI based on Table 16-21 and 16-22~~	~~15 19 24 25~~ ~~LEI based on Table 16-21 and 16-22~~	~~27 30 42 45~~ ~~LEI based on Table 16-21 and 16-21~~	~~50 52 55 57 62 65 80 87~~ ~~LEI based on Table 16-21 and 16-22~~
~~KNEE~~	~~0~~ ~~No motion deficits~~	~~10~~ ~~LEI based on Table 16-23~~	~~20~~ ~~LEI based on Table 16-23~~	~~30 35 40 45~~ ~~LEI based on Table 16-23~~	~~50 55 60 65 70 75 80 85 90 95~~ ~~LEI based on Table 16-23~~
~~HIP~~	~~0~~ ~~No motion deficits~~	~~5 10~~ ~~LEI based on Table 16-24~~	~~15 20 25~~ ~~LEI based on Table 16-24~~	~~30 35 40 45~~ ~~LEI based on Table 16-4~~	~~50 55 60 65 70 75 80 85 90 95~~ ~~LEI based on Table 16-24~~

Page 563, Right column, Paragraph 1

of 1% or 2% WPI would not be added to increase the impairment beyond maximum impairment assigned for grade E in that diagnostic impairment class. Thus, a person with a grade B or 1% impairment who sustains a similar, subsequent injury that is rated as grade D or 3% WPI would then have a 3% WPI. In states where apportionment is appropriate, 1% impairment would have preexisted the new injury and 2% would be related to the new injury. A person who has a grade C or 2% WPI who sustains a new injury, and still falls in grade A, B, or C, still has a 2% WPI, meaning there is no new impairment (0%) for the new injury.

Chapter 17

Page 564, TABLE 17-2, Cervical Spine Regional Grid: Spine Impairments

CLASS	CLASS 0	CLASS 1	CLASS 2	CLASS 3	CLASS 4
IMPAIRMENT RATING (WPI %)	**0**	**1%–8%**	**9%–14%**	**15%–24%**	**25%–30%**
SOFT TISSUE AND NON- SPECIFIC CONDITIONS					
Non-specific chronic, or chronic recurrent neck pain (also known as chronic sprain/strain, symptomatic degenerative disc disease, facet joint pain, chronic whiplash, etc)	0 Documented history of sprain/strain-type injury, now **resolved, or occasional complaints of neck pain with no objective findings** on examination	1 1 2 3 3 Documented history of sprain/strain-type injury with continued complaints of **axial and/or non-verifiable radicular complaints; similar findings documented on multiple occasions** (see Section 17.2 General Considerations)			
MOTION SEGMENT LESIONS					
Intervertebral disc herniation and/or AOMSI[a] *Note:* AOMSI includes instability (specifically as defined in the *Guides*), arthrodesis, failed arthrodesis, dynamic stabilization or arthroplasty, or combinations of those in multiple-level conditions	0 Imaging findings of intervertebral disk herniation without a history of clinically correlating radicular symptoms	4 5 6 7 8 Intervertebral disk herniation(s) or documented AOMSI **at a single level or multiple levels** with medically documented findings; with or without surgery ***and*** for disk herniation(s) with documented **resolved radiculopathy or non-verifiable radicular complaints** at the clinically appropriate level(s) present at the time of examination[b]	9 10 11 12 14 Intervertebral disk herniation and/or AOMSI **at a single level** with medically documented findings; with or without surgery ***and*** with documented **residual radiculopathy at the clinically appropriate level** present at the time of examination *(see Table 17-7 to grade radiculopathy)*	15 17 19 21 23 Intervertebral disk herniations or AOMSI **at multiple levels,** with medically documented findings; with or without surgery ***and*** with ~~or without~~ documented signs of **residual radiculopathy at a single clinically appropriate level** present at the time of examination *(see Table 17-7 to grade radiculopathy)*	25 27 28 29 30 Intervertebral disk herniation(s) or AOMSI, with medically documented findings; with or without surgery ***and*** with documented signs of **residual bilateral or multiple-level radiculopathy at the clinically appropriate levels** present at the time of examination *(see Table 17-7 to grade radiculopathy)*
Pseudarthrosis *Note:* Only applies after spinal surgery intended for fusion with resultant documented motion (not necessarily AOMSI by definition provided in footnote) with consistent radiographic findings or hardware failure; with or without surgery to repair	0 ~~Pseudarthrosis (post surgery) with no residual signs or symptoms~~	4 5 6 7 8 Pseudarthrosis (post surgery) at a **single level or multiple levels** with medically documented findings ***and*** with documented **resolved radiculopathy or non-verifiable radicular** complaints at the clinically appropriate level present at the time of examination	9 10 11 12 14 Pseudarthrosis (post surgery) at a **single level** with medically documented findings ***and*** with documented **radiculopathy at the clinically appropriate level** present at the time of examination *(see Table 17-7 to grade radiculopathy)*	15 17 19 21 23 Pseudarthrosis (post surgery) at **multiple levels** with medically documented findings ***and*** with ~~or without~~ documented **radiculopathy at a single clinically appropriate level** present at the time of examination *(see Table 17-7 to grade radiculopathy)*	25 27 28 29 30 Pseudarthrosis (post surgery) at **multiple levels** with medically documented findings ***and*** with documented signs of **bilateral or multiple-level radiculopathy at the clinically appropriate levels** present at the time of examination *(see Table 17-7 to grade radiculopathy)*

[a] See footnote [a] on page 571.
[b] Or AOMSI in the absence of radiculopathy, or with documented resolved radiculopathy or nonverifiable radicular complaints at the clinically appropriate levels present at the time of examination.

Page 565, Table 17-2 (continued) Cervical Spine Regional Grid: Spine Impairments

CLASS	CLASS 0	CLASS 1	CLASS 2	CLASS 3	CLASS 4
IMPAIRMENT RATING (WPI %)	**0**	**1%–8%**	**9%–14%**	**15%–24%**	**25%–30%**
Spinal Stenosis (may include AOMSI)[a] *Note:* AOMSI includes instability (specifically as defined in the *Guides*), arthrodesis, failed arthrodesis, dynamic stabilization or arthroplasty, or combinations of those in multiple-level conditions	0 Cervical stenosis at **1 or more levels** with or without AOMSI with axial pain ~~medically documented symptoms, resolved without residual complaints or findings~~	4 5 6 7 8 Cervical stenosis **at a single level or multiple levels** with or without AOMSI with medically documented findings; with or without surgery ***and*** with documented **resolved radiculopathy or nonverifiable radicular complaints** at clinically appropriate level(s) present at the time of examination	9 10 11 12 14 Cervical stenosis **at a single level** with or without AOMSI with medically documented findings; with or without surgery ***and*** with documented **radiculopathy at the clinically appropriate level** present at the time of examination *(see Table 17-7 to grade radiculopathy)*[b]	15 17 19 21 23 Cervical stenosis **at multiple levels** with or without AOMSI with medically documented findings; with or without surgery ***and*** with ~~or without~~ documented **residual radiculopathy at a single clinically appropriate level** present at the time of examination *(see Table 17-7 to grade radiculopathy)*[b]	25 27 28 29 30 Cervical stenosis **at multiple levels** with or without AOMSI with medically documented findings; with or without surgery ***and*** with documented signs of **residual bilateral or multiple-level radiculopathy at the clinically appropriate levels** present at the time of examination *(see Table 17-7 to grade radiculopathy)*[b]
FRACTURES/DISLOCATIONS OF THE SPINE					
~~Compression f~~ Fractures of 1 or more vertebral bodies ***~~and/or~~*** Fracture of posterior element (pedicle, lamina, articular process, transverse process) ***and~~/or~~*** burst fracture	0 **Single- or multiple-levels fractures with no or minimal compression** of any vertebral body; with or without pedicle and/or posterior element fracture (<t5-mm displacement) Healed with or without surgical intervention; with **no residual signs or symptoms**	2 2 4 6 8 **Single- or multiple-level fractures with <25% compression** of any vertebral body; with or without ~~minimal~~ bony retropulsion, with or without pedicle and/or posterior element fracture ~~(≤5-mm displacement)~~ Healed, with or without surgery (including vertebroplasty or kyphoplasty) ***~~and~~*** may have documented **resolved radiculopathy or nonverifiable radicular complaints** at clinically appropriate level(s)[b]	9 10 11 12 14 **Single- or multiple-level fractures with 25%–50% compression** of any vertebral body; with or without ~~moderate~~ bony retropulsion; with or without pedicle and/or posterior element fracture ~~(>5-mm displacement)~~ Healed, with or without surgery (including vertebroplasty or kyphoplasty) with residual deformity ***~~and~~*** may have documented **radiculopathy at the clinically appropriate level** present at the time of examination *(see Table 17-7 to grade radiculopathy)*[b]	15 17 19 21 23 **Single- or multiple-level fractures with >50% compression** of 1 vertebral body; with or without ~~moderate to severe~~ bony retropulsion; with or without pedicle and/or posterior element fracture ~~(>5-mm displacement)~~ Healed, with or without surgical intervention; with residual deformity ***~~and~~*** may have **radiculopathy at a single clinically appropriate level** present at the time of examination *(see Table 17-7 to grade radiculopathy)*[b]	25 27 28 29 30 **Single- or multiple-level fractures with >50% compression** of 1 vertebral body; with or without ~~moderate to severe~~ bony retropulsion; with or without pedicle and/or posterior element fracture ~~(>5-mm displacement)~~ Healed, with or without surgical intervention; with residual deformity ***~~and~~*** may have documented signs of **bilateral or multiple-level radiculopathy at the clinically appropriate levels** present at the time of examination *(see Table 17-7 to grade radiculopathy)*[b]

[a] See footnote [a] on page 571.
[b] With signs of spinal cord injury or myelopathy: see Chapter 13, The Central and Peripheral Nervous System, for calculating additional impairment

Page 566, Table 17-2 (continued) Cervical Spine Regional Grid: Spine Impairments: Row 3, Columns 3, 4, 5, 6

Dislocations/ fracture-dislocation	0 Dislocation or fracture-dislocation with no or minimal compression of any vertebral body; with or without pedicle and/or posterior element fracture (<5-mm displacement) Healed, with or without surgical intervention; with no residual signs or symptoms	2 2 4 6 8 **Single-level** dislocation with or without fracture Healed, with or without surgery ***and*** with documented resolved radiculopathy or nonverifiable radicular complaints at clinically appropriate level(s)[b]	9 10 11 12 14 **Single-level** dislocation with or without fracture Healed, with or without surgical intervention, including fusion ~~***and***~~ may have documented **radiculopathy at the clinically appropriate level** present at the time of examination *(see Table 17-7 to grade radiculopathy)*[b]	15 17 19 21 23 **Multiple-level** dislocation with or without surgical intervention, including fusion ~~***and***~~ may have documented **radiculopathy** at **a single clinically appropriate level** present at the time of examination *(see Table 17-7 to grade radiculopathy)*[b]	25 27 28 29 30 **Multiple-level** dislocation with or without surgical intervention, including fusion ~~***and***~~ may have signs of **bilateral or multiple-level radiculopathy** at the clinically appropriate levels present at the time of examination *(see Table 17-7 to grade radiculopathy)*[b]

Page 567, Table 17-3 Thoracic Spine Regional Grid: Spine Impairments

CLASS	CLASS 0	CLASS 1	CLASS 2	CLASS 3	CLASS 4
IMPAIRMENT RATING (WPI %)	**0**	**1%–6%**	**7%–11%**	**12%–16%**	**17%–22%**
Non-specific chronic, or chronic recurrent thoracic spine pain (also known as chronic sprain/strain, etc)	0 Documented history of sprain/strain-type injury, now **resolved, or occasional ~~continued~~ complaints of mid-back pain with no objective findings** on examination	1 1 2 3 3 Documented history of sprain/strain type injury with continued complaints of **axial and/or nonverifiable radicular complaints** and similar findings documented on multiple occasions ~~in previous examinations and present at the time of evaluation~~ (see Sec. 17.2 General Considerations)			
MOTION SEGMENT LESIONS					
Intervertebral disk herniation and/or AOMSI[a] *Note:* AOMSI includes instability (specifically as defined in the *Guides*), arthrodesis, failed arthrodesis, dynamic supral stabilization or arthroplasty, or combinations of those in multiple-level conditions	0 Imaging findings of intervertebral disk herniation without a history of clinically correlating radicular symptoms	2 3 4 5 6 Intervertebral disk herniation(s) or documented AOMSI, **at a single or multiple levels**, with medically documented findings; with or without surgery; ~~findings~~ ***and*** ~~with~~ for disk herniation(s) with documented **resolved radiculopathy or nonverifiable radicular complaints** at clinically appropriate level(s), present at the time of examination[b]	7 8 9 10 11 Intervertebral disk herniation or AOMSI **at a single level**, with medically documented findings; with or without surgery ***and*** with documented **residual radiculopathy at the clinically appropriate level** present at the time of examination *(see Table 17-7, Examination Adjustment, to grade radiculopathy)*	12 13 14 15 16 Intervertebral disk herniation(s) or AOMSI **at multiple levels** with medically documented findings; with or without surgery ***and*** with documented signs of **residual radiculopathy at a single clinically appropriate level** present at the time of examination *(see Table 17-7 to grade radiculopathy)*	17 18 19 20 22 Intervertebral disk herniation(s) or AOMSI, **at multiple levels**, with medically documented injury; with or without surgery ***and*** with documented signs of **residual bilateral or multiple-level radiculopathy at the clinically appropriate levels** present at the time of examination *(see Table 17-7 to grade radiculopathy)*
Pseudarthrosis *Note:* Only applies after spinal surgery intended for fusion with resultant documented motion (not necessarily AOMSI by definition provided in footnote) with consistent radiographic findings or hardware failure; with or without surgery to repair	0 ~~Pseudarthrosis (post surgery) with no residual signs or symptoms~~	2 3 4 5 6 Pseudarthrosis (post surgery) at a **single level or multiple levels** with medically documented findings ***~~and~~*** may have documented **resolved radiculopathy or nonverifiable radicular complaints** at the clinically appropriate level(s) present at the time of examination	7 8 9 10 11 Pseudarthrosis (post surgery) at a **single level** with medically documented findings ***~~and~~*** may have documented **radiculopathy at the clinically appropriate level** present at the time of examination *(see Table 17-7 to grade radiculopathy)*	12 13 14 15 16 Pseudarthrosis (post surgery) at **multiple levels** with medically documented findings ***~~and~~*** may have documented **radiculopathy at a single clinically appropriate level** present at the time of examination *(see Table 17-7 to grade radiculopathy)*	17 18 19 20 22 Pseudarthrosis (post surgery) at **multiple levels** with medically documented findings ***~~and~~*** may have documented signs of bilateral or **multiple-level radiculopathy at the clinically appropriate levels** present at the time of examination *(see Table 17-7 to grade radiculopathy)*

[a] See footnote [a] on page 571.
[b] Or AOMSI in the absence of radiculopathy, or with documented resolved radiculopathy or nonverifiable radicular complaints at the clinically appropriate levels present at the time of examination..

Page 568, Table 17-3 (continued) Thoracic Spine Regional Grid: Spine Impairments

FRACTURES/DISLOCATION OF THE SPINE					
~~Compression~~ Fractures of 1 or more vertebral bodies including compression fractures, ***~~and/or~~*** fracture of posterior element (pedicle, lamina, articular process, transverse process) ***~~and/or~~*** and burst fracture ~~of 1 or more vertebral bodies~~	0 ~~Resolved with or without surgery, with no residual signs or symptoms~~	2 3 4 5 6 **Single- or multiple-level fracture(s) with <25% compression** of any vertebral body; with or without ~~minimal~~ bony retropulsion into the canal, pedicle and/or posterior element fracture ~~(<5-mm displacement)~~ Healed, with or without surgery (includes vertebroplasty or kyphoplasty) ***~~and~~*** may have documented **resolved radiculopathy or nonverifiable radicular complaints** at clinically appropriate level, present at the time of examination	7 8 9 10 11 **Single- or multiple-level fractures with 25%–50% compression** of any vertebral body; with or without ~~moderate~~ bony retropulsion into the canal, pedicle and/or posterior element fracture ~~(>5-mm displacement)~~ Healed, with or without surgery (including vertebroplasty or kyphoplasty) with or without residual deformity ***~~and~~*** may have documented **radiculopathy at the clinically appropriate level** present at the time of examination *(see Table 17-7 to grade radiculopathy)* With signs of spinal cord injury or myelopathy: see Chapter 13, The Central and Peripheral Nervous System, for calculating additional impairment	12 13 14 15 16 **Single- or multiple-level fractures with >50% compression** of any vertebral body; with or without ~~moderate to severe~~ bony retropulsion into the canal, pedicle and/or posterior element fracture ~~(>5-mm displacement)~~ Healed with or without surgery (including vertebroplasty or kyphoplasty) with or without residual deformity ***~~and~~*** may have documented **radiculopathy at a single clinically appropriate level** present at the time of examination *(see Table 17-7 to grade radiculopathy)* With signs of spinal cord injury or myelopathy: see Chapter 13 for calculating additional impairment	17 18 19 20 22 **Single or multiple-level fractures with >50% compression** of any vertebral body; with or without ~~moderate to severe~~ bony retropulsion into the canal, pedicle and/or posterior element fracture ~~(>5-mm displacement)~~ Healed with or without surgery (including vertebroplasty or kyphoplasty) with or without residual deformity ***~~and~~*** may have documented signs of **bilateral or multiple-level radiculopathy** at the clinically appropriate levels present at the time of examination *(see Table 17-7 to grade radiculopathy)* With signs of spinal cord injury or myelopathy: see Chapter 13 for additional impairment

Page 569, Table 17-3 (continued) Thoracic Spine Regional Grid: Spine Impairments, Rows 1, 2, and 3

CLASS	CLASS 0	CLASS 1	CLASS 2	CLASS 3	CLASS 4
IMPAIRMENT RATING (WPI %)	**0**	**1%–6%**	**7%–11%**	**12%–16%**	**17%–22%**
Dislocations/ fracture-dislocation	0 ~~Resolved with or without surgery, with no residual signs or symptoms~~	2 3 4 5 6 **Single- or multiple-level** dislocation with or without fracture Healed, with or without surgery ***and*** may have documented **resolved radiculopathy or nonverifiable radicular complaints** at clinically appropriate level(s) With signs of spinal cord injury or myelopathy: see Chapter 13, The Central and Peripheral Nervous System, for calculating additional impairment	7 8 9 10 11 **Single-level dislocation** with or without fracture Healed, with or without surgical intervention, including fusion ***and*** may have documented radiculopathy at **the clinically appropriate level** present at the time of examination *(see Table 17-7 to grade radiculopathy)* With signs of spinal cord injury or myelopathy: see Chapter 13 for calculating additional impairment	12 13 14 15 16 **Multiple-level** dislocation with or without fracture Healed with or without surgical intervention, including fusion ***and*** may have documented **radiculopathy at a single clinically appropriate level** present at the time of examination *(see Table 17-7 to grade radiculopathy)* With signs of spinal cord injury or myelopathy: see Chapter 13 for calculating additional impairment	17 18 19 20 22 **Multiple-level** dislocation with or without fracture Healed with or without surgical intervention, including fusion ***and*** may have documented signs of **bilateral or multiple-level radiculopathy at the clinically appropriate levels** present at the time of examination *(see Table 17-7 to grade radiculopathy)* With signs of spinal cord injury or myelopathy: see Chapter 13

Page 570, Table 17-4 Lumbar Spine Regional Grid: Spine Impairments

SOFT TISSUE AND NON-SPECIFIC CONDITIONS					
Non-specific chronic, or chronic recurrent low back pain (also known as: chronic sprain/strain, symptomatic degenerative disc disease, facet joint pain, SI joint dysfunction, etc)	0 Documented history of sprain/strain-type injury, now **resolved, or occasional complaints of back pain with no objective findings** on examination	0 1 2 3 3 Documented history of sprain/strain type injury with continued complaints of **axial and/or nonverifiable radicular complaints** and similar findings on multiple occasions (see Sec. 17.2, General Considerations)			
MOTION SEGMENT LESIONS					
Intervertebral disk herniation and/or AOMSI[a] *Note:* AOMSI includes instability (specifically as defined in the *Guides*), arthrodesis, failed arthrodesis, dynamic stabilization or arthroplasty, or combinations of those in multiple-level conditions	0 Imaging findings of intervertebral disk herniation without a history of clinically correlating radicular symptoms	5 6 7 8 9 Intervertebral disk herniation(s) or documented AOMSI, at a **single level or multiple levels** with medically documented findings; with or without surgery ***and*** for disk herniation(s) with documented **resolved radiculopathy or nonverifiable radicular complaints at clinically appropriate level(s),** present at the time of examination[a]	10 11 12 13 14 Intervertebral disk herniation ~~and/~~or AOMSI **at a single level** with medically documented findings; with or without surgery ***and*** with documented **residual radiculopathy at the clinically appropriate level** present at the time of examination *(see Physical Examination adjustment grid in Table 17-7 to grade radiculopathy)*	15 17 19 21 23 Intervertebral disk herniations ~~and/~~or AOMSI **at multiple levels**, with medically documented findings; with or without surgery ***and*** with ~~or without~~ documented **residual radiculopathy at a single clinically appropriate level** present at the time of examination *(see Table 17-7 to grade radiculopathy)*	25 27 29 31 33 Intervertebral disk herniations and/or AOMSI, **at multiple levels**, with medically documented findings; with or without surgery ***and*** with documented signs of **residual bilateral or multiple-level radiculopathy at the clinically appropriate levels** present at the time of examination *(see Table 17-7 to grade radiculopathy)*
Pseudarthrosis *Note:* Only applies after spinal surgery intended for fusion with resultant documented motion (not necessarily AOMSI by definition provided in footnote) with consistent radiographic findings or hardware failure; with or without surgery to repair	0 ~~Pseudarthrosis (post surgery) with no residual signs or symptoms~~	5 6 7 8 9 Pseudarthrosis (post surgery) at a **single level or multiple levels** with medically documented findings ***and*** with documented **resolved radiculopathy or nonverifiable radicular complaints** at the clinically appropriate level(s) present at the time of examination	10 11 12 13 14 Pseudarthrosis (post surgery) at a **single level** with medically documented findings ***~~and~~*** may have documented signs of **radiculopathy at the clinically appropriate level** present at the time of examination *(see Table 17-7 to grade radiculopathy)*	15 17 19 21 23 Pseudarthrosis (post surgery) at a **multiple levels** with medically documented findings ***~~and~~*** may have documented **radiculopathy at a single clinically appropriate level** present at the time of examination *(see Table 17-7 to grade radiculopathy)*	25 27 29 31 33 Pseudarthrosis (post surgery) at a **multiple levels** with medically documented findings ***~~and~~*** may have documented signs of **bilateral or multiple level radiculopathy at the clinically appropriate levels** present at the time of examination *(see Table 17-7 to grade radiculopathy)*

[a] Or AOMSI in the absence of radiculopathy, or with documented resolved radiculopathy or nonverifiable radicular complaints at the clinically appropriate levels present at the time of examination.

Page 571, Table 17-4 (continued) Lumbar Spine Regional Grid: Spine Impairments

CLASS	CLASS 0	CLASS 1	CLASS 2	CLASS 3	CLASS 4
IMPAIRMENT RATING (WPI %)	**0**	**1%–9%**	**10%–14%**	**15%–24%**	**25%–33%**
Spinal stenosis[a] (may include AOMSI) *Note:* AOMSI includes instability (specifically as defined in the *Guides*), arthrodesis, failed arthrodesis, dynamic stabilization or arthroplasty, or combinations of those in multiple-level conditions	0 **Lumbar stenosis at 1 or more levels with** axial pain only	5 6 7 8 9 Lumbar stenosis, at a **single level or multiple levels**, (with or without AOMSI) with medically documented findings; with or without surgery *(decompression)* ***or*** **with resolved previously documented neurogenic claudication** ***and*** may have documented resolved radiculopathy at clinically appropriate level(s) or nonverifiable radicular complaints at clinically appropriate level(s), present at the time of examination	10 11 12 13 14 Lumbar stenosis, at a **single level** with or without AOMSI with medically documented findings; with or without surgery *(decompression)* ***and*** **documented** intermittent neurogenic claudication *(see Table 17-7 to grade radiculopathy, but not claudication)* may have documented signs of radiculopathy at the clinically appropriate level present at the time of examination with signs of cauda equina syndrome: use Chapter 13 to calculate additional impairment	15 17 19 21 23 Lumbar stenosis, at **multiple levels** with or without AOMSI with medically documented findings; with or without surgery *(decompression)* ***and*** **documented** neurogenic claudication, **walking limited to <10 minutes** *(see Table 17-7 to grade radiculopathy, but not claudication)* may have documented **signs of** radiculopathy at a single clinically appropriate level **present at the time of examination** with signs of cauda equina syndrome: use Chapter 13 to calculate additional impairment	25 27 29 31 33 Lumbar stenosis, at **multiple levels** with or without AOMSI with medically documented findings; with or without surgery *(decompression)* ***and*** severe neurogenic claudication and inability to ambulate **without assistive devices** may have **documented signs of** bilateral or multiple-level radiculopathy at the clinically appropriate levels **present at the time of examination** with signs of cauda equina syndrome: use Chapter 13 to calculate additional impairment
SPONDYLOLISTHESIS					
Spondylolisthesis	0 Spondylolysis or spondylolisthesis at one or more levels on imaging studies with axial pain only	5 6 7 8 9 Spondylolisthesis with medically documented injury; with or without surgery ***and*** with documented **resolved radiculopathy or nonverifiable radicular complaints** at clinically appropriate level, present at the time of examination	10 11 12 13 14 Spondylolisthesis with medically documented injury; with or without surgery at a single level ***and*** with documented signs of **radiculopathy** at the clinically appropriate level present at the time of examination *(see Table 17-7 to grade radiculopathy)*	15 17 19 21 23 Spondylolisthesis with medically documented injury; with or without surgery **at multiple levels** ***and*** with documented signs of **radiculopathy at a single clinically appropriate level** present at the time of examination *(see Table 17-7 to grade radiculopathy)*	25 27 29 31 33 Spondylolisthesis with medically documented injury; with or without surgery **at multiple levels** ~~(including AOMSI)~~ ***and*** with documented signs of **bilateral or multiple-level radiculopathy at the clinically appropriate levels** present at the time of examination *(see Table 17-7 to grade radiculopathy)*

[a] Note: The following applies to the cervical, thoracic, and lumbar spine grids: 1) Intervertebral disk herniation excludes annular bulge, annular tear and disk herniation on imaging without consistent objective findings of radiculopathy at the appropriate level(s) when most symptomatic. 2) When AOMSI is the diagnosis being rated, imaging is not included in the Net Adjustment Calculation, because imaging is used to confirm the diagnosis.

Page 572, Table 17-4 (continued) Lumbar Spine Regional Grid: Spine Impairments

CLASS	CLASS 0	CLASS 1	CLASS 2	CLASS 3	CLASS 4
IMPAIRMENT RATING (WPI %)	**0**	**1%–9%**	**10%–14%**	**15%–24%**	**25%–33%**
Degenerative spondylolisthesis with or without spinal stenosis	0 Degenerative spondylolisthesis at one or more levels with axial pain only	5 6 7 8 9 Degenerative spondylolisthesis, **at a single or multiple levels**, with medically documented injury; with or without surgery previously documented neurogenic claudication ***and*** may have documented resolved radiculopathy or nonverifiable radicular complaints at clinically appropriate level(s), present at the time of examination	10 11 12 13 14 Degenerative spondylolisthesis **at a single level**, with medically documented injury; with or without surgery ***and*** documented intermittent neurogenic claudication *(see table 17-7 to grade radiculopathy, but **not** claudication)* may have with documented radiculopathy at the clinically appropriate level present at the time of examination	15 17 19 21 23 Degenerative spondylolisthesis **at multiple levels** with medically documented injury; with or without surgery ***and*** documented neurogenic claudication, walking limited to <10 minutes *(see Table 17-7 to grade radiculopathy, but **not** claudication)* may have documented radiculopathy at a single clinically appropriate level present at the time of examination with signs of cauda equina syndrome: use Chapter 13 to calculate additional impairment	25 27 29 31 33 Degenerative spondylolisthesis is **at multiple levels** with medically documented injury; with or without surgery ***and*** severe neurogenic claudication and inability to ambulate without assistive devices may have documented signs of bilateral or multiple-level radiculopathy at the clinically appropriate levels present at the time of examination with signs of cauda equina syndrome: use Chapter 13 to calculate additional impairment

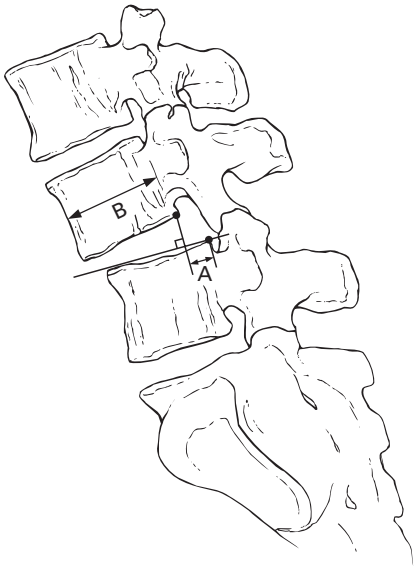
Page 573, Table 17-4 (continued) Lumbar Spine Regional Grid: Spine Impairments

CLASS	CLASS 0	CLASS 1	CLASS 2	CLASS 3	CLASS 4
IMPAIRMENT RATING (WPI %)	**0**	**1%–9%**	**10%–14%**	**15%–24%**	**25%–33%**
FRACTURES/DISLOCATIONS OF THE SPINE					
Fractures of 1 or more vertebral bodies including compression fractures, fracture of posterior element (pedicle, lamina, articular process, transverse process) ***and*** burst fracture ~~of 1 or more vertebral bodies~~	0 ~~Resolved with or without surgery, with no residual signs or symptoms~~	5 6 7 8 9 **Single- or multiple-level fractures with <25% compression** of any vertebral body; with or without retropulsion; with or without pedicle and/or posterior element fracture ~~(≤5-mm displacement)~~ Healed, with or without surgery *(includes vertebroplasty or kyphoplasty)* ***and*** may have documented resolved radiculopathy at clinically appropriate level(s) or documented nonverifiable radicular complaints (without radiculopathy) at clinically appropriate level(s), present at the time of examination with signs of cauda equina syndrome: use Chapter 13 to calculate additional impairment	10 11 12 13 14 **Single- or multiple-level fractures with 25%–50% compression** of any vertebral body; with or without retropulsion; pedicle and/or posterior element fracture ~~(≥5-mm displacement)~~ Healed, with or without surgery *(including vertebroplasty or kyphoplasty)* with or without residual deformity ***and*** may have documented **radiculopathy at the clinically appropriate level** present at the time of examination *(see Table 17-7 to grade radiculopathy)* with signs of cauda equina syndrome: use Chapter 13 to calculate additional impairment	15 17 19 21 23 **Single- or multiple-level fractures** with >50% compression of any vertebral body; with or without retropulsion into the canal; pedicle and/or posterior element fracture ~~(≥5-mm displacement)~~ Healed, with or without surgery *(including vertebroplasty or kyphoplasty)* with or without residual deformity ***and*** may have **significant radiculopathy at a single clinically appropriate level** present at the time of examination *(see Table 17-7 to grade radiculopathy)* with signs of cauda equina syndrome: use Chapter 13 to calculate additional impairment	25 27 29 31 33 **Single- or multiple-level fractures with >50% compression** of any vertebral body; with or without retropulsion; pedicle and/or posterior element fracture ~~(≥5-mm displacement)~~ Healed, with or without surgery *(including vertebroplasty or kyphoplasty)* with or without residual deformity ***and*** may have **significant radiculopathy bilaterally or at multiple clinically appropriate levels** present at the time of examination *(see Table 17-7 to grade radiculopathy)* with signs of cauda equina syndrome: use Chapter 13 to calculate additional impairment

Page 574, Table 17-4 (continued) Lumbar Spine Regional Grid: Spine Impairments, Row 3

CLASS	CLASS 0	CLASS 1	CLASS 2	CLASS 3	CLASS 4
IMPAIRMENT RATING (WPI %)	**0**	**1%–9%**	**10%–14%**	**15%–24%**	**25%–33%**
Dislocations/ fracture-dislocation	0 Resolved without surgery with no residual signs or symptoms	5 6 7 8 9 **Single- or multiple-level** dislocations (with or without fractures) healed, with or without surgery ~~***and***~~ may have documented **resolved radiculopathy** or nonverifiable radicular complaints at clinically appropriate level(s), present at the time of examination with signs of cauda equina syndrome: use Chapter 13 to calculate additional impairment	10 11 12 13 14 **Single-level** dislocation with or without fracture healed, with or without surgical intervention, including fusion ~~***and***~~ may have **documented radiculopathy at the clinically appropriate level** present at the time of examination *(see Table 17-7 to grade radiculopathy)* with signs of cauda equina syndrome: use Chapter 13 to calculate additional impairment	15 17 19 21 23 **Multiple-level** dislocation with or without fracture healed, with or without surgical intervention, including fusion ~~***and***~~ may have documented **radiculopathy at a single clinically appropriate level** present at the time of examination *(see Table 17-7 to grade radiculopathy)* with signs of cauda equina syndrome: use Chapter 13 to calculate additional impairment	25 27 29 31 33 **Multiple-level** dislocation with or without fracture healed, with or without surgical intervention, including fusion ~~***and***~~ with documented signs of **bilateral or multiple level radiculopathy at the clinically appropriate levels** present at the time of examination *(see Table 17-7 to grade radiculopathy)* with signs of cauda equina syndrome: use Chapter 13 to calculate additional impairment

Page 579, Figure 17-5, Loss of Motion Segment Integrity, Translation



A dot is placed at the posterior superior corner of the lower vertebra, and a separate dot is placed at the posterior-inferior corner of the upper vertebra. The distance (A) is measured as illustrated by the figure, using two parallel lines. Measurements are obtained in flexion and extension. Measure the A-P sagittal plane diameter at the midlevel of the superior vertebra (B). Distance A is then compared to distance B; determine % or distance in mm as specified for each region (see Section 17.3) AOMSI is established if the regional criteria are met.

Page 579, Right Column, Paragraph 2

Electrodiagnostic studies should be performed ~~only~~ by a licensed physician who is qualified by education, training, and experience in these procedures. Typically, these studies are performed by board certified neurologists and physical medicine specialists. Some jurisdictions allow others to perform such studies. The studies must be performed in accordance with established standards. The quality of the test and interpretation of the results depend on the skill and knowledge of the individual performing the study. The technique and documentation of the electromyographer may be considered in assessing "EMG evidence" and validity. The EMG/NCV is considered to be an extension of the history and physical examination, and interpretation should correlate with the clinical findings.

Page 580, Figure 17-6, legend, last sentence

Therefore (+8) − (−18) = 26° and would qualify for loss of structural integrity at any lumbar level.

Page 583, Boxed Example: Lumbar Diskectomy With Residual Radiculopathy, last line

the default rating (C) for the diagnosis; that is, it would remain at 12% whole person impairment (WPI).

Page 583, Left Column, Insert New Paragraph 3, Continue into Right Column, Paragraph 1

Regional Impairment

In some instances, the evaluator may be asked to express an impairment rating in terms of the involved spine region, rather than the whole person. This is done by dividing the WPI estimate by the % of spine function that has been assigned to that region. The conversion factors used in the DBI method are the same as those used for the DRE method in the Fifth Edition. For the purposes of the DBI method, the conversion factors are: 0.35 for the cervical spine, 0.20 for the thoracic spine, and 0.75 for the lumbar spine.

Page 584, Example 17-2, Intervertebral Disk Herniation, Impairment Rating

Left Column

Impairment Rating: Regional Impairment: Diagnosis is consistent with "Intervertebral disk herniation ~~and/~~or documented AOMSI at a single or multiple levels with medically documented findings; with or

Right Column

however, this is 2 or more points higher than the grade modifier for clinical studies and therefore discounted. Physical Exam:

Page 584, Right Column, Insert before Example 17-3

CLASS 2

9% to 14% Whole Person Impairment

Page 584, Example 17-3: Intervertebral Disk Herniation or AOMSI at a Single Level

Current Symptoms: Resolution of neck pain and persistent pain in the left arm. Symptoms occur only with strenuous activity.

Physical Exam: Slightly decreased range of motion of the cervical spine and slight weakness of wrist extensors on the left, diminished light touch in C6 distribution.

Diagnosis: Status post herniated nucleus pulposus and anterior cervical diskectomy and fusion at C5-6 with persistent left arm pain.

Impairment Rating: Regional Impairment: Diagnosis is consistent with "Intervertebral disk herniation and/or ~~documented~~ AOMSI at a single level with medically documented findings; with or without surgery, and with documented resolved radiculopathy

Page 585, Example 17-3: Intervertebral Disk Herniation or AOMSI at a Single Level (continued)

~~or non-verifiable radicular complaints~~ at the clinically appropriate level present at the time of examination," and therefore, assigned to class 2. Adjustment Grids: Functional History: Grade modifier 1 based on both functional symptoms and PDQ. Physical Examination: Grade modifier 2 based on motor strength. Clinical Studies: Grade modifier 2 based on imaging studies. Net adjustment is −1 and the impairment is class 2 grade B. Impairment is 11% WPI.

Class 2 Example Calculation

CDX	GMFH	GMPE	GMCS
2	1	2	2

Net adjustment

(GMFH − CDX) (1 − 2) = −1
+ (GMPE − CDX) (2 − 2) = 0
+ (GMCS − CDX) (2 − 2) = 0
Net adjustment = −1

Result is class 2 with an adjustment −1; therefore, this impairment is class 2, grade B, which equals 11% impairment

Note: CDX indicates class of diagnosis; GMFH, grade modifier for Functional History; GMPE, grade modifier for Physical Examination; and GMCS, grade modifier for Clinical Studies.

Page 585, Example 17-4: Intervertebral Disk Herniation or AOMSI at a Single Level, History and Physical Exam

History: The patient sustained a blow to the posterior aspect of his neck from a machine support that slipped. Studies revealed a C7-T1 disk herniation. He

Physical Exam:
has decreased finger flexion strength (3/5), and decreased sensation in ring and little fingers.

Page 586, Example 17-5: Intervertebral Disk Herniation or AOMSI at Multiple Levels, Physical Exam

Physical Exam: Slight loss of cervical spine motion. Neurologic examination reveals diminished light touch on the right in the distribution of C6 and decreased brachioradialis reflex, right.

Page 586, Example 17-5: Intervertebral Disk Herniation or AOMSI at Multiple Levels, Impairment Rating

not applicable, define class. Net adjustment is −1, resulting in class 3, grade B. Impairment is 17% WPI.

Class 3 Example Calculation			
CDX	**GMFH**	**GMPE**	**GMCS**
3	3	2	n/a

Net adjustment

(GMFH − CDX) (3 − 3) = 0

+ (GMPE − CDX) + (2 − 3) = − 1

Net adjustment = − 1

Result is class 3 with an adjustment − 1 from the default value C, which equals class 3, grade B = 17% impairment.

Note: CDX indicates class of diagnosis; GMFH, grade modifier for Functional History; GMPE, grade modifier for Physical Examination; and GMCS, grade modifier for Clinical Studies.

Page 586, Example 17-6: Vertebral Fractures at Multiple Levels, Right Column, Impairment Rating

Impairment Rating: Regional Impairment: Diagnosis is consistent with "Single or multiple level fractures with >50% compression of one vertebral body; with or without ~~moderate to severe~~ bony retropulsion; with or without pedicle and/or posterior element fracture ~~(>5mm displacement)~~. Healed; with or without surgical intervention; with residual deformity and may have documented multiple level radiculopathy at the clinically appropriate levels present at the time of examination," and is therefore assigned to class 4. Adjustment Grids: Functional History: Grade modifier 4 based on pain/symptoms at rest and PDQ. Physical Examination: Grade modifier 2 based on atrophy, noting the 4/5 weakness would have resulted in grade modifier 1. Clinical Studies: not applicable, used to determine class. Since the diagnostic class is 4, the net adjustment calculation requires that +1 be added to each grade modifier to calculate the net adjustment. Net adjustment compared with diagnostic class is 0, resulting in class 4, grade C. Impairment is 28% WPI.

Class 4 Example Calculation			
CDX	**GMFH**	**GMPE**	**GMCS**
4	4 (+1 for class 4) = 5	2 (+1 for class 4) = 3	n/a

Net adjustment

(GMFH − CDX) (5− 4) = 1

+ (GMPE − CDX) + (3 − 4) = − 1

Net adjustment = 0

Result is class 4 with an adjustment of 0. Therefore, this impairment is class 4, grade C, which equals 28% impairment.

Note: CDX indicates class of diagnosis; GMFH, grade modifier for Functional History; GMPE, grade modifier for Physical Examination; and GMCS, grade modifier for Clinical Studies.

Page 587, Example 17-8: Intervertebral Disk Herniation or AOMSI at One or More Levels, Physical Exam and Impairment Rating

Physical Exam: Normal examination, including neurological evaluation. He describes an occasional sensation of numbness in a T1 distribution; however, no sensory deficits are documented.

Impairment Rating: Regional Impairment: Diagnosis is consistent with "Intervertebral disk herniation ~~and/~~ or documented AOMSI at a single or multiple levels with medically documented findings; with or without surgery, and with documented resolved

Class 1 Example Calculation			
CDX	**GMFH**	**GMPE**	**GMCS**
1	1	0	2
Net adjustment (GMFH − CDX) (1 − 1) = 0 + (GMPE − CDX) +(0 − 1) = −1 + (GMCS − CDX) + (2− 1) = 1 Net adjustment = 0 Result is class 1 with an adjustment 0 The adjustment does not move the impairment; therefore, this impairment is class 1, grade C which equals 4% impairment.			

Note: CDX indicates class of diagnosis; GMFH, grade modifier for Functional History; GMPE, grade modifier for Physical Examination; and GMCS, grade modifier for Clinical Studies.

Page 588, Example 17-9: Vertebral Fractures at Multiple Levels, Impairment Rating

Lines 1-6:

Impairment Rating: Regional Impairment: Diagnosis consistent with "Single or multiple level fractures with >50% compression of one vertebral body; with or without ~~moderate to severe bony~~ retropulsion; with or without pedicle and/or posterior element fracture ~~(>5mm displacement)~~;

Last two lines:

class is −3, resulting in class 3, grade A. Impairment is 12% WPI.

Class 3 Example Calculation			
CDX	**GMFH**	**GMPE**	**GMCS**
3	1	2	n/a
Net adjustment (GMFH − CDX) (1 − 3) = −2 + (GMPE − CDX) + (2 − 3) = −1 Net adjustment = −3 Result is class 3 with an adjustment of −3. An adjustment ≤−2 moves the impairment to grade A; therefore, this impairment is class 3, grade A, which equals 12% WPI.			

Note: CDX indicates class of diagnosis; GMFH, grade modifier for Functional History; GMPE, grade modifier for Physical Examination; GMCS, grade modifier for Clinical Studies; WPI, whole person impairment; and n/a, not applicable.

Page 588, Example 17-10: Lumbar Sprain/Strain, Impairment Rating and Comment

Impairment Rating: Regional Impairment: Diagnosis is consistent with "Documented history of sprain/strain type injury, now resolved or occasional

Comment: Patient has a history of a single episode of low back pain without objective findings on exam. Spina bifida occulta is a radiographic finding without clinical significance. Without persistent axial pain documented on multiple occasions, IC is 0.

Page 589, Example 17-12: Recurrent Low Back Pain Without Objective Findings, Impairment Rating

and similar findings documented on multiple occasions and present at the time of evaluation, and therefore assigned to class 1. Functional History:

Page 590, Example 17-13: Intervertebral Disk Herniation or AOMSI at a Single Level (continued), Impairment Rating

Impairment Rating: Regional Impairment: Diagnosis is consistent with "Intervertebral disk herniation ~~and/~~or AOMSI at a single level with

Page 590, Example 17-14: Intervertebral Disk Herniation or AOMSI at a Single Level, Impairment Rating

Impairment Rating: Regional Impairment: Diagnosis is consistent with "Intervertebral disk herniation ~~and/~~or AOMSI at a single level with

Physical Examination: Grade modifier is 2 based on both positive SLR test and sensory loss. Clinical testing: Not applicable (AOMSI). The net adjustment is +1 and the impairment is class 2, grade D. Impairment is 13% WPI.

Class 2 Example Calculation

CDX	GMFH	GMPE	GMCS
2	3	2	n/a

Net adjustment

(GMFH − CDX) (3 − 2) = 1

+ (GMPE − CDX) (2 − 2) = 0

Net adjustment = +1

Result is class 2 with a net adjustment of +1; therefore, this impairment is class 2, grade D, which equals 13% impairment.

Note: CDX indicates class of diagnosis; GMFH, grade modifier for Functional History; GMPE, grade modifier for Physical Examination; and GMCS, grade modifier for Clinical Studies.

Page 591, Example 17-15: Intervertebral Disk Herniation or AOMSI at Multiple Levels, Impairment Rating

Impairment Rating: Regional Impairment: Diagnosis is consistent with "Intervertebral disk herniations ~~and/~~ or AOMSI at multiple levels with medically documented findings; with or without surgery; AND with ~~or without~~ documented residual radiculopathy at a single clinically appropriate level present at the time of examination," and therefore, assigned to class 3.

Page 591, Example 17-16: Lumbar Spinal Stenosis at Multiple Levels, Physical Exam

Physical Exam: Persistent severe back pain and palpable spasm with persistent L5 sensory deficit and 3/5 ankle dorsiflexion weakness, absent patellar tendon flex. SLR test was negative, and walking in the hallway outside the office provoked bilateral buttock and leg pain, which was relieved with rest.

Page 592, Example 17-16: Lumbar Spinal Stenosis at Multiple Levels (continued), Impairment Rating

Impairment Rating: Regional Impairment: Diagnosis is consistent with "Lumbar stenosis at multiple levels with or without AOMSI with medically documented findings; with or without surgery and may have documented signs of bilateral or multiple-level radiculopathy at clinically appropriate levels at the time of exam or severe neurogenic claudication and inability to ambulate without assistive devices, and therefore, assigned to class 4 with default impairment of 29% WPI. Adjustment Grids: Functional Assessment: Grade modifier 4, based on limited activity. Since functional assessment is 2 or more than physical exam grade modifier, it is not included. Physical Examination: Grade modifier 2 based on decreased motor strength (3/5). Clinical studies are not included because they were used to make the diagnosis. Because this is a class 4 impairment, the net adjustment calculation requires that +1 be added to each adjustment calculation. Therefore, the net adjustment is −1, and the impairment is class 4, grade B. Impairment rating is 27%.

Class 4 Example Calculation

CDX	GMFH	GMPE	GMCS
4	4(+1)=5	2(+1)=3	n/a

Net adjustment

(GMFH − CDX) (5 − 4) = n/a

+ (GMPE − CDX) + (3 − 4) = −1

Net adjustment = −1

Result is class 4 with an adjustment of −1. Therefore, the result is class 4, grade B = 27% impairment.

Page 593, Table 17-11, Diagnosis-Based Impairment Grid: Pelvis, Row 4, Columns 1, 4, 5, and 6

Fractures of the pubic rami; fractures of the ilium, ischium, and/or sacrum *Instability is defined as a position shift that occurs when comparing supine and weight-bearing X rays.	0 Nondisplaced, healed fractures without residual structural deformity; no residual symptoms ***or*** healed fracture with or without surgery with no residual symptoms related to fracture	1 2 2 3 3 Nondisplaced or minimally displaced fractures, with or without surgery healed and stable, including minor separation of the pubic symphysis (>1 cm and <3 cm; unrelated to childbirth); with residual signs and symptoms	4 5 5 6 6 Displaced fractures (>1 cm and <2 cm) of the ilium, ischium, sacrum, or coccyx healed, with or without surgery ***or*** traumatic separation of the pubic symphysis (≥3 cm) with residual signs but no instability*	7 8 9 10 11 Fractures displaced ≥2cm of the ilium, ischium, sacrum, or coccyx healed, with or without surgery ***and*** with deformity and instability; traumatic separation of the pubic symphysis ≥3 cm with or without surgery with residual deformity and instability*	12 13 14 15 16 SI joint dislocations, or fracture-dislocations with rupture of the SI ligaments; transverse sacral fractures with spinopelvic dissociation ***or*** severe complications after surgery, including pseudarthrosis, osteomyelitis, or documented instability*

Page 595, Left Column, Paragraph 2

Instability for the purposes of pelvis-related impairment is defined as a position shift that occurs when comparing supine and weight-bearing X rays. In cases when the abnormalities discussed earlier are present on imaging studies and are known (or assumed) to have preexisted an injury being rated, evaluators should acknowledge these antecedent conditions in the report (see Table 17-14).

Page 595, Example 17-17: Ischiopubic Stress Fracture, History

History: The patient participated in military intensive training involving running with a backpack weighing 27 kg (60 lb) over an extended time and distance. He fell jumping from a boulder and had difficulty standing up due to pain in the pelvis and right upper thigh, which increased with walking and running. ~~Pain was initially felt while jumping over a boulder two weeks before the time of the medical exam.~~

Page 596, Example 17-17: Ischiopubic Stress Fracture, Clinical Tests

Clinical Tests: Pelvic X rays show a slightly displaced fracture of inferior pubic ramus; there is already callus development in the area.

Class 1 Example Calculation

CDX	GMFH	GMPE	GMCS
1	2	1	n/a

Net adjustment

$$(\text{GMFH} - \text{CDX})\ (2 - 1) = 1$$
$$+\ (\text{GMPE} - \text{CDX})\ (1 - 1) = 0$$
$$\text{Net adjustment} = 1$$

Result is class 1 with an adjustment 1; therefore, this impairment is class 1, grade D, which equals 3% impairment

Note: CDX indicates class of diagnosis; GMFH, grade modifier for Functional History; GMPE, grade modifier for Physical Examination; GMCS, grade modifier for Clinical Studies; and n/a, not applicable.

Page 596, Example 17-18: Traumatic Separation of the Symphysis Pubis, Clinical Tests

Clinical Tests: Initial X rays reveal separation of symphysis by approximately 3.5 cm. Follow-up X rays 6 months later reveal persistent displacement, but no instability.

Page 597, Example 17-19: Complex Pelvic Ring Fracture Dislocation, Physical Exam and Diagnosis

Physical Exam: The patient is able to rise from a sitting position and walks with a walker. He has residual partial loss of bladder control due to a left S3 nerve root involvement, with sensory loss estimated at 80% affecting the left S3 dermatome.

Diagnosis: Complex pelvic ring fracture dislocation, surgically treated, ~~reduced~~ and stabilized, with persistent deformity, with residual left S3 nerve root involvement.

Page 597, Summary

5. Determine the DBI for each ratable diagnosis, using the regional grids, as explained in Sections 17.2 and 17.4. This includes selection of the appropriate impairment class for that diagnosis.

Page 599, Table 17-A, PDQ Scoring

Pain Disability	Questionnaire Score	Grade Modifer
0	No disablity	0
1–70	Mild disability	1
71–100	Moderate disability	2
101–130	Severe disability	3
131–150	Extreme disability	4

Page 599, 17.6 Appendix 17-A: Pain Disability Questionnaire, Left Column, Paragraph 1

The Pain Disability Questionnaire (PDQ) was specifically developed for evaluating clinical out-comes in a population of patients with disabling musculoskeletal disorders, primarily involving the spine. It yields a total functional disability score ranging from 0 (perfect function) to 150 (total disability).

Page 599, Right Column, Number 3

3. The evaluating doctor or an assistant will score the PDQ by adding together the marked integer in each question.

Page 600

Note: See PDQ on page 4 of this document.

Glossary

Page 611, Impairment Evaluation

Impairment evaluation Acquisition, recording, assessment, and reporting of medical evidence, ~~performed by a licensed medical doctor or surgeon,~~

Page 612, Independent Medical Examiner (IME)

Independent medical examination (IME) A usually one-time evaluation performed by an independent medical examiner who is not treating the patient or claimant, to answer questions posed by the party requesting the IME.

NC705408
BQ65:08-P-093:11/08