

What a Tangled Web We Reap:

The *AMA Guides to the Evaluation of Permanent Impairment*, Sixth Edition

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- Senior Contributing Editor, Sixth Edition, Editor of *Guides Casebook* and *Guides Newsletter*
- Founder, Brigham and Associates, Inc., (www.impairment.com), an organization dedicated to assuring accurate, unbiased impairment ratings, through impairment review and assessment, data analysis, training and resource development - providing services throughout the United States and Canada

Disclosure: Dr. Brigham is independent of the American Medical Association (AMA). This presentation is neither endorsed nor sponsored by the American Medical Association; and opinion and the content of the training presentations present the views of the presenter and not necessarily those of the AMA, particularly on matters of medical policy.

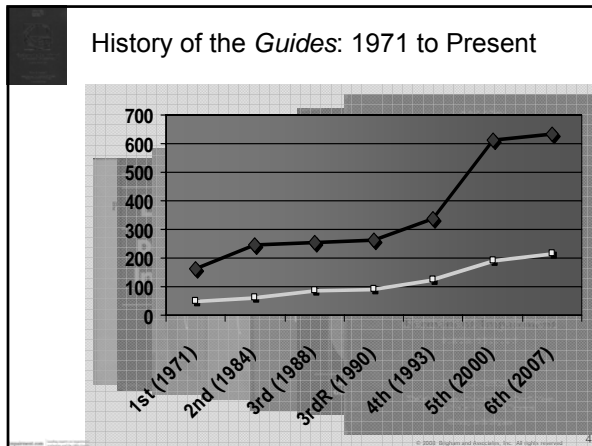
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Topics

- Overview of the Sixth Edition - Brief with Examples
- Myths - Sixth Edition and Impairment Rating
- Insights - Sixth Edition and Impairment Rating

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What a Tangled Web We Reap: The AMA Guides Sixth Edition



Overview of Sixth Edition

- ### Sixth Edition Responded to Prior Criticisms and Problems
- Failure to provide a comprehensive, valid, reliable, unbiased, and evidence-based rating system.
 - Impairment ratings did not adequately or accurately reflect loss of function.
 - Numerical ratings were more the representation of “legal fiction than medical reality.”
 - High error rate (majority erroneously elevated)


Sixth Edition Recommended Changes

- Standardize assessment of Activities of Daily Living (ADL) limitations associated with physical impairments.
- Apply functional assessment tools to validate impairment rating scales.
- Include measures of functional loss in the impairment rating.
- Improve overall intrarater and interrater reliability and internal consistency.

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Impairment Rating Considerations

1. What is the problem?
2. What difficulties are reported?
3. What are the exam findings?
4. What are the results of the clinical studies?



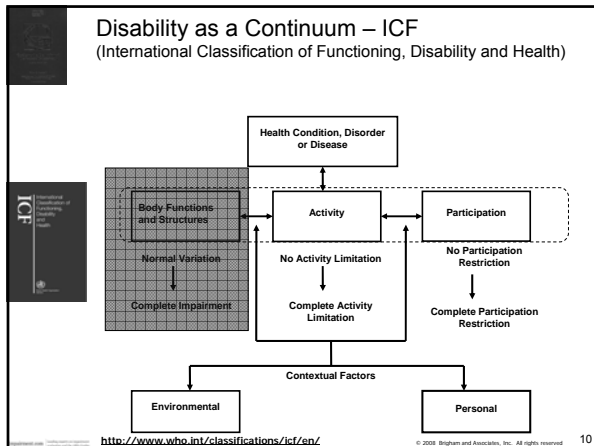
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Sixth Edition Five Axioms

1. Adopt methodology of International Classification of Functioning, Disability and Health (ICF)
2. Become more diagnosis-based, with diagnoses being evidence based
3. Give priority to simplicity and ease
4. Stress conceptual and methodological congruity
5. Provide rating percentages that consider clinical and functional history, examination and clinical studies

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Chapter 15

The Upper Extremities

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Sixth Edition

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Sixth Edition – Chapter 15

- 15.1 Principles of Assessment
- 15.2 Diagnosis-Based Impairment
- 15.3 Adjustment Grid and Grade Modifiers: Non Key Factors
- 15.4 Peripheral Nerve Impairment
- 15.5 Complex Regional Pain Syndrome Impairment
- 15.6 Amputation Impairment
- 15.7 Range of Motion Impairment
- 15.8 Summary
- 15.9 Appendix
 - Appendix 15-A Functional Assessment Inventories
 - Appendix 15-B Electrodiagnostic Evaluation of Entrapment Syndromes

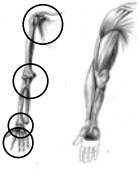
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What a Tangled Web We Reap: The AMA Guides Sixth Edition

Introduction

- Regions
 - Digit / Hand
 - Wrist
 - Elbow
 - Shoulder
- Problems
 - Soft Tissue
 - Muscle / Tendon
 - Bone / Joint / Ligament




Intro | 383 - 384 13

Table 15-1 Definition of Impairment Classes and Impairment Ranges (6th ed, 385)




Class	Problem	Upper Extremity (UEI)	Whole Person (WPI)
0	No objective findings	0% UEI	0%
1	Mild	1% - 13% UEI	1% - 8% WPI
2	Moderate	14% - 25% UEI	8% - 15% WPI
3	Severe	26% - 49% UEI	16% - 29% WPI
4	Very Severe	50% - 100% UEI	30% - 60% WPI

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Diagnosis-Based Impairments and Adjustment Factors – Grade Modifiers

Grid	Class 0	Class 1	Class 2	Class 3	Class 4
Diagnosis 	Table 15-2 Table 15-3 Table 15-4 Table 15-5 No problem	Mild problem	Moderate problem	Severe problem	Very severe problem

Adjustment Factors – Grade Modifiers

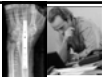
Non-Key Factor	Grid	Grade Modifier 0	Grade Modifier 1	Grade Modifier 2	Grade Modifier 3	Grade Modifier 4
Functional History 	Table 15-7	No problem	Mild problem	Moderate problem	Severe problem	Very severe problem
Physical Exam 	Table 15-8	No problem	Mild problem	Moderate problem	Severe problem	Very severe problem
Clinical Studies 	Table 15-9	No problem	Mild problem	Moderate problem	Severe problem	Very severe problem

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Example: s/p Wrist Fusion

- **History:** s/p wrist fusion for osteoarthritis
- **Current Symptoms:** difficulties with many ADLS, however self-care unassisted
- **Functional Assessment:** *QuickDASH* 45
- **Physical Exam:** Fused in neutral position, mild tenderness
- **Clinical Studies:** X-rays reveal solid fusion, prior X-rays revealed severe post-traumatic osteoarthritis






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**Fourth and Fifth Editions:
Rating based on motion deficits**

Fourth Edition
3.1h Wrist
Figure 26 = 21% UEI
Figure 29 = 9% UEI
Total = 30% UEI


Fifth Edition
16.4g Wrist Motion Impairment
Figure 16-26 = 21% UEI
Figure 16-31 = 9% UEI
Total = 30% UEI

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Table 15-3 Wrist Regional Grid (6th ed, 396)

Diagnostic Criteria	Class 0	Class 1	Class 2	Class 3	Class 4
RANGES	0%	1% - 13%	14% - 25%	26% - 49%	50% - 100%
GRADE		A B C D E	A B C D E	A B C D E	A B C D E
Ligament / Bone / Joint / Wrist Arthrodesis (Fusion)				26 28 30 32 34 Wrist arthrodesis in functional position (10° extension to 10° flexion, radial 5° to ulnar 10°)	<i>If non-optimal positioning assess per Section 15.7, Range of Motion Assessment</i>



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Chapter 16

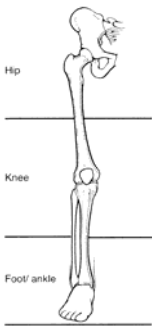
The Lower Extremities

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Introduction

- Regions
 - Foot / ankle
 - Knee
 - Hip
- Problems
 - Soft Tissue
 - Muscle / Tendon
 - Bone / Joint / Ligament



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Ankle Instability



History: Twisted his left ankle and had recurrent problems with it feeling "weak". His physician diagnosed a tear of the anterior talofibular ligament and recommended conservative therapy. He reported difficulties walking on uneven surfaces being cautious, however his gait was otherwise normal. He is evaluated 1 year later.

Physical Exam: Gait is normal. He reports mild tenderness over the anterior talofibular ligament, and there appears to be mild laxity. Motion and muscle evaluation is normal. No atrophy.

Clinical Studies: Stress X rays reveal 3-mm excess opening on the left compared with the right.

Diagnosis: Ligamentous instability of the anterior talofibular ligament mild.

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Case Example: Ankle Instability

Fourth Edition

Per Table 64 (4th ed., 86) 3 mm. laxity = 2% WPI or 5% LEI

Fifth Edition


Per Table 17-33 (5th ed., 546) 3 mm laxity = 2% WPI or 5% LEI

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Table 16-2 Foot and Ankle Regional Grid (6th ed, 502)


Diagnostic Criteria	Class 0	Class 1	Class 2	Class 3	Class 4
RANGES	0%	1% - 13%	14% - 25%	26% - 49%	50% - 100%
GRADE		B C D E	A B C D E	A B C D E	A B C D E
Joint instability / ligamentous laxity - traumatic		3 4 5 6 7 Mild Ligamentous laxity (AP Stress radiograph; 2- 3 mm Excess opening or 5 - 9 degrees Varus Opening compared to Normal opposite side)			






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Case Example: Ankle Instability

Diagnosis-Based Impairment

Grid	Class 0	Class 1	Class 2	Class 3	Class 4
Diagnosis  Table 16-2	No problem	Mild problem	Moderate problem	Severe problem	Very severe problem

Adjustment Factors – Grade Modifiers

Non-Key Factor	Grid	Grade Modifier 0	Grade Modifier 1	Grade Modifier 2	Grade Modifier 3	Grade Modifier 4
Functional History  Table 16-7		No problem	Mild problem	Moderate problem	Severe problem	Very severe problem
Physical Exam  Table 16-8		No problem	Mild problem	Moderate problem	Severe problem	Very severe problem
Clinical Studies  Table 16-9		No problem	Mild problem	Moderate problem	Severe problem	Very severe problem



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Sixth Edition: Calculation

CDX	GMFH	GMPE	CMCS
1	0	1	n/a

Net Adjustment Calculations

(GMFH-CDX) 0 - 1 = -1
 (GMPE-CDX) 1 - 1 = 0
 (GMCS-CDX) n/a - 1 = n/a
 Net Adjustment = -1

Result is Class 1 grade B.

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Table 16-2 Foot and Ankle Regional Grid
(6th ed, 502)

Diagnostic Criteria	Class 0	Class 1	Class 2	Class 3	Class 4
RANGES	0%	1% - 13%	14% - 25%	26% - 49%	50% - 100%
GRADE		B C D E	A B C D E	A B C D E	A B C D E
Joint instability / ligamentous laxity - traumatic		3 4 5 6 7 Mild Ligamentous laxity (AP Stress radiograph; 2-3 mm Excess opening or 5 - 9 degrees Varus Opening compared to Normal opposite side)			

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16.3e Lower Extremity DBI Examples
(Whole Person Impairments)

Ex.	Region	Class	Diagnosis	6 th e. (WPI %)	5 th ed. (WPI %)
16-1	Foot/ankle	0	Contusion	0%	0%
16-2		1	Plantar fasciitis	1%	0%
16-3		1	Ankle instability	2%	2%
16-4		2	Bimalleolar fracture	8%	9%
16-5		3	Ankle arthritis	10%	12%
16-6		5	s/p Total ankle replacement with poor result	24%	30%
16-7	Knee	0	Knee strain, resolved	0%	0%
16-8		1	Meniscal tear	1%	1%
16-9		1	s/p ACL and medial meniscus repair	5%	4%
16-10		2	Subluxing patella	6%	3%
16-11		3	s/p Total knee replacement	15%	20%
16-12		4	Knee arthritis	20%	20%
16-13	Hip	0	Contusion	0%	0%
16-14		1	Hip dislocation and relocation	1%	0%
16-15		3	Hip fracture	12%	25%
Ave.				7%	8%

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Chapter 17
Spine

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Sixth Edition

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Sixth Edition – Chapter 17

- 17.1 Principles of Assessment
- 17.2 Diagnosis-Based Impairment
- 17.3 Adjustment Grid and Grade Modifiers: Non-Key Factors
- 17.4 Pelvic Impairment
- 17.5 Summary
- 17.6 Appendix


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Sixth Edition – Chapter 17

**Three Spine Regions
And Pelvis**

- Cervical spine
- Thoracic spine
- Lumbar spine
- Pelvis

FIGURE 17-1
Spine and Pelvis Regions



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Introduction

- DBI expansion of Diagnosis-Related Estimates (Injury) Method of 4th and 5th ed.
- Range of Motion no longer used, either as examination finding or determinate (not found to be reliable)
- Unreliable findings (i.e. spasm and guarding) no longer used
- Surgery no longer increases impairment

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Categories of Spine Impairment

- Non-specific spinal pain
- Intervertebral disk and motion segment pathology (single and multiple levels)
- Cervical and lumbar stenosis
- Spine fractures and/or dislocations
- Pelvic fractures and/or dislocations

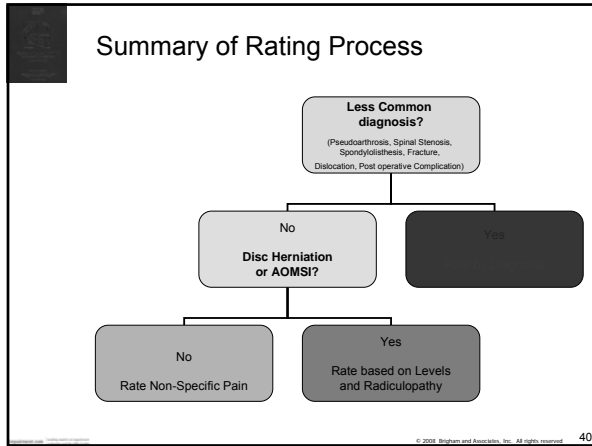
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Table 17-1 Definition of Impairment Classes and Impairment Ranges (6th ed, 559)

Class	Problem	Cervical Spine	Thoracic Spine	Lumbar Spine	Pelvis
0	No objective findings	0%	0%	0%	0%
1	Mild	1% - 8%	1% - 6%	1% - 9%	1% - 3%
2	Moderate	9% - 14%	7% - 11%	10% - 14%	4% - 6%
3	Severe	15% - 24%	12% - 17%	15% - 24%	7% - 11%
4	Very Severe	25% - 30%	17% - 22%	25% - 33%	12% - 17%

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Example: Lumbar Diskectomy (Single level) with Residual Radiculopathy

- Current Symptoms: Pain; symptoms with normal activity
- Functional Assessment: PDQ 80
- Physical Exam: SLR Positive at 40°
- Clinical Studies: Confirms Diagnosis

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Example: Lumbar Diskectomy with Residual Radiculopathy

- Table 17-4 Lumbar Spine Regional Grid
- Category: Motion Segment Lesions / Intervertebral disk herniation and/or AOMSI
- Class 2
- Default Impairment: 12% WPI

	10	11	12	13	14
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 Physical Examination adjustment grid in Table 17-7 to grade radiculopathy)					

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Example: Lumbar Discectomy with Residual Radiculopathy

- Table 17-4 Lumbar Spine Regional Grid
- Category: Motion Segment Lesions / Intervertebral disk herniation and/or AOMSI
- Class 2
- Default Impairment: 12% WPI

10	11	12	13	14
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 Physical Examination adjustment grid in Table 17-7 to grade radiculopathy)				

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17.3g Spine DBI Examples (Whole Person Impairments)

Example	Region	Class	Diagnosis	6 th ed. (WPI %)	5 th ed. (WPI %)
17-1	Cervical	0	Sprain / strain, resolved	0%	0%
17-2	Cervical	1	Disk herniation, resolved radiculopathy	6%	7%
17-3	Cervical	1	Disk herniation, single level fusion	7%	25%
17-4	Cervical	2	Disk herniation with radiculopathy	12%	18%
17-5	Cervical	3	Disk herniations with radiculopathy	12%	23%
17-6	Cervical	4	Vertebral fractures	29%	23%
17-7	Thoracic	0	Sprain / strain, resolved	0%	0%
17-8	Thoracic	1	Disk herniation	4%	5%
17-9	Thoracic	3	Vertebral fractures at multiple levels	12%	10%
17-10	Lumbar	0	Sprain / strain, resolved	0%	0%
17-11	Lumbar	1	Disk herniation, resolved	0%	0%
17-12	Lumbar	1	Non-specific pain	1%	5%
17-13	Lumbar	2	Disk herniation with radiculopathy	12%	10%
17-14	Lumbar	2	Disk herniation with radiculopathy	13%	25%
17-15	Lumbar	3	Disk herniations with radiculopathy	19%	18%
Average				8%	11%

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Myths

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MYTH - Impairment ratings are equivalent to disability ratings

- Impairment not equal to disability
- impairment as “a significant deviation, loss, or loss of use of any body structure or body function in an individual with a health condition, disorder, or disease.” (6th ed., 5). Impairment is a medical determination.
- Disability is much more of contextual concept. It is defined by the Guides as “activity limitations and/or participation restrictions in an individual with a health condition, disorder, or disease” (6th ed., 5).

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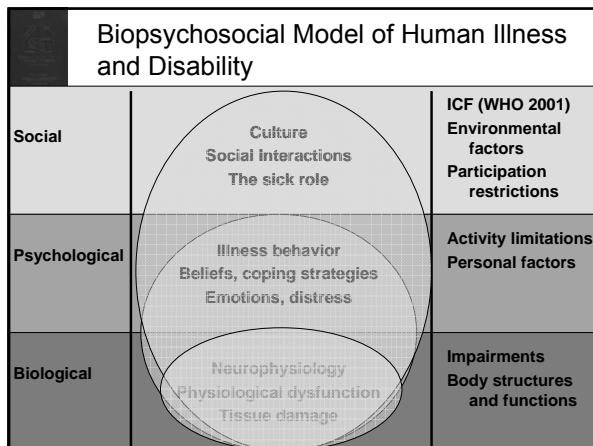
Limited Correlation Among Pain, Impairment, Disability And Work Capability

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Impairment ≠ Disability

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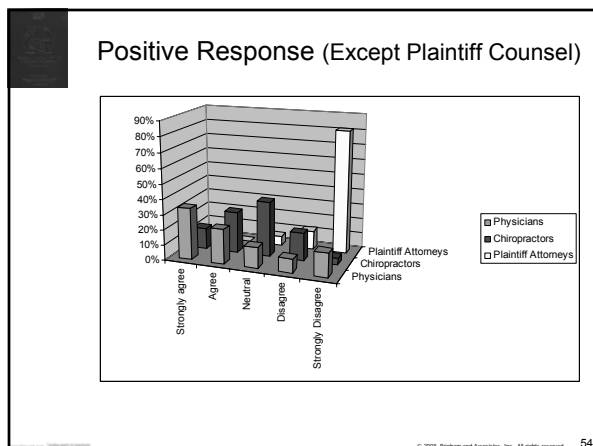
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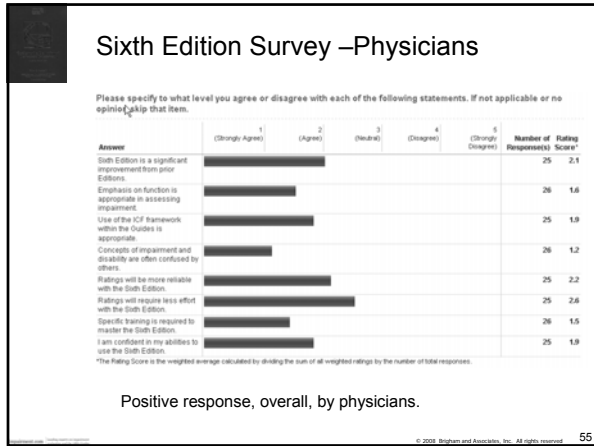
MYTH - Sixth Edition is not an improvement

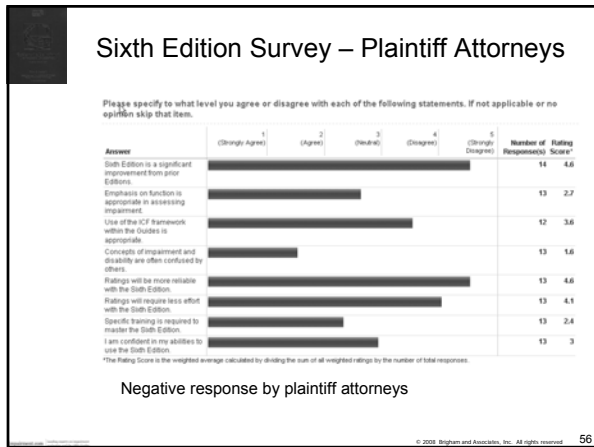
- Positive response by physicians, albeit negative response primarily by trial attorneys
- Not perfect, however addresses many criticisms of prior Editions

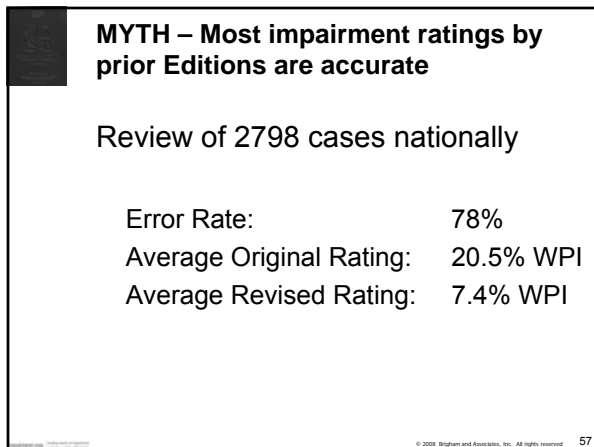
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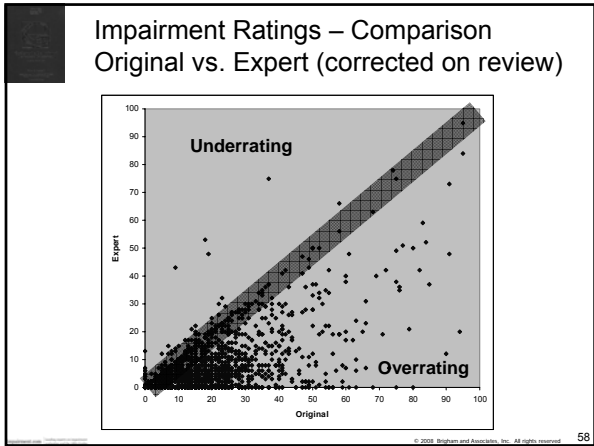


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MYTH - Impairment ratings values should not change between Editions

- Impairment ratings will change between editions for several medical reasons
- With advancements in medical and surgical interventions has come improved outcomes and, therefore, decreasing impairment in some situations.
- In prior Editions additional impairment given for surgery, however role of surgery is to improve impairment.
- Over time certain approaches are found not to be valid and/or reliable

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MYTH - Impairment rating values are significantly lower in the Sixth Edition

- It is premature to determine the impact of the changes with the Sixth Edition until there is adequate experience with it, until impairment rating values associated with specific diagnoses may be compared, and until studies are performed
- Although some impairment values have been corrected resulting in lower impairments, the Sixth Edition also expands the number of ratable conditions (such as soft tissue and muscle / tendon injuries, and non-specific spinal pain).

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MYTH - Impairment rating values are significantly lower in the Sixth Edition

- Re-rating of case examples provided in the Sixth Edition reveals minimal difference except for surgical spine
- Need to consider difference between what is observed and what is correct – less profound differences among correct ratings

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Comparison of Diagnosis-based Impairment Rating Examples

Category	Fifth Edition (%)	Sixth Edition (%)
Upper Extremity	~4	~6
Lower Extremity	~6	~8
Spine (except fusion)	~4	~6
Spine Fusion	~12	~24

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Insights

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Insights

- The Sixth Edition is still far from perfect with respect to defining impairment or the complexities of human function, however it represents significant advancement.
- The Sixth Edition will
 - simplify the rating process,
 - improve interrater reliability, and
 - provide a solid basis for future editions of the Guides.
- Most physicians and claims professionals will find the Sixth Edition a significant improvement; however other special interest groups will disagree.

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Insights

- Disputes will occur and will relate primarily to:
 - Failure to understand the significant changes with the Sixth Edition (and associated Corrections and Clarifications)
 - Rating multiple diagnoses (vs. rating for most significant diagnosis)
 - Manipulating diagnosis to achieve different class placement (most significant determinant)
 - Manipulating adjustment factors (defining severity)
 - Mental and behavioral assessments
- Physician effort will initially be more, and then decrease
- Most impairment ratings will be performed by physicians who focus on these assessments

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Insights

- Systems must recognize the difference between impairment and disability and develop more reasonable approaches to translate impairment into financial awards.
- Impairment assessment is a medical determination not a legal determination; impairment ratings are based on approaches developed primarily by physicians through a consensus process.

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Recommendations

- Learn Sixth Edition (and associated Corrections and Clarifications)
- Select qualified examiners
- Critically review all impairment ratings to assure accuracy
- Recognize impairment and disability are not synonymous
- Focus on goal of full restoration of function, without impairment and disability.

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