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

Christopher R. Brigham, MD

- 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.

Topics

- Overview of the Sixth Edition - Brief with Examples
- Myths - Sixth Edition and Impairment Rating
- Insights - Sixth Edition and Impairment Rating
History of the Guides: 1971 to Present

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.

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?

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
Disability as a Continuum – ICF
(International Classification of Functioning, Disability and Health)

No Activity Limitation

Complete Activity Limitation

No Participation Restriction

Complete Participation Restriction

Environmental

Personal

Contextual Factors

Body Functions and Structures

Activity

Participation

Chapter 15
The Upper Extremities

AMA Guides to the Evaluation of Permanent Impairment
Sixth Edition

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
Introduction

- Regions
  - Digit / Hand
  - Wrist
  - Elbow
  - Shoulder

- Problems
  - Soft Tissue
  - Muscle / Tendon
  - Bone / Joint / Ligament

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

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

Diagnosis-Based Impairments and Adjustment Factors – Grade Modifiers

Adjustment Factors – Grade Modifiers
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

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

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

<table>
<thead>
<tr>
<th>Diagnostic Criteria</th>
<th>Class 0</th>
<th>Class 1</th>
<th>Class 2</th>
<th>Class 3</th>
<th>Class 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>RANGES</td>
<td>0%</td>
<td>1% - 13%</td>
<td>14% - 25%</td>
<td>26% - 49%</td>
<td>50% - 100%</td>
</tr>
<tr>
<td>GRADE</td>
<td>B C D E</td>
<td>A B C D E</td>
<td>A B C D E</td>
<td>A B C D E</td>
<td></td>
</tr>
<tr>
<td>Ligament / Bone / Joint / Wrist Arthrodesis (Fusion)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>26 28 30 32 34 wrist extendors in functional position 10° extension in non-rotated P is added 0°</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0%</td>
<td>1% - 13%</td>
<td>14% - 25%</td>
<td>26% - 49%</td>
<td>50% - 100%</td>
<td></td>
</tr>
<tr>
<td>If non-optimal positioning affecting range of motion, 10° is added to 0°.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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s/p Wrist Fusion

**Diagnosis-Based Impairment**

<table>
<thead>
<tr>
<th>Grid</th>
<th>Class 0</th>
<th>Class 1</th>
<th>Class 2</th>
<th>Class 3</th>
<th>Class 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diagnosis</td>
<td>No problem</td>
<td>Mild problem</td>
<td>Moderate problem</td>
<td>Severe problem</td>
<td>Very severe problem</td>
</tr>
</tbody>
</table>

**Adjustment Factors – Grade Modifiers**

<table>
<thead>
<tr>
<th>Non-Key Factor</th>
<th>Grid</th>
<th>Grade Modifier 0</th>
<th>Grade Modifier 1</th>
<th>Grade Modifier 2</th>
<th>Grade Modifier 3</th>
<th>Grade Modifier 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Functional History</td>
<td>Table 15-7</td>
<td>No problem</td>
<td>Mild problem</td>
<td>Moderate problem</td>
<td>Severe problem</td>
<td>Very severe problem</td>
</tr>
<tr>
<td>Physical Exam</td>
<td>Table 15-8</td>
<td>No problem</td>
<td>Mild problem</td>
<td>Moderate problem</td>
<td>Severe problem</td>
<td>Very severe problem</td>
</tr>
<tr>
<td>Clinical Studies</td>
<td>Table 15-9</td>
<td>No problem</td>
<td>Mild problem</td>
<td>Moderate problem</td>
<td>Severe problem</td>
<td>Very severe problem</td>
</tr>
</tbody>
</table>

**Table 15-7 Functional History Adjustment: Upper Extremities** (6th ed. 406)

<table>
<thead>
<tr>
<th>Functional History Factor</th>
<th>Grade Modifier 0</th>
<th>Grade Modifier 1</th>
<th>Grade Modifier 2</th>
<th>Grade Modifier 3</th>
<th>Grade Modifier 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asymptomatic</td>
<td>Pain / symptoms at rest</td>
<td>Pain / symptoms with less than normal activity</td>
<td>Pain / symptoms with normal activity</td>
<td>Pain / symptoms with strenuous / vigorous activity</td>
<td>Pain / symptoms at rest</td>
</tr>
<tr>
<td>AND Unable to perform self-care activities independently</td>
<td>AND Able to perform self-care activities</td>
<td>AND Able to perform self-care activities with supervision but unassisted</td>
<td>AND Requires assistance to perform self-care activities</td>
<td>AND Unable to perform self-care activities</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>QuickDASH Score</th>
<th>0-20</th>
<th>21-40</th>
<th>41-60</th>
<th>61-80</th>
<th>81-100</th>
</tr>
</thead>
</table>

**Sixth Edition: Calculation**

<table>
<thead>
<tr>
<th>CDX</th>
<th>GMFH</th>
<th>GMPE</th>
<th>CMCS</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>2</td>
<td>n/a</td>
<td>n/a</td>
</tr>
</tbody>
</table>

Net Adjustment Calculations

\[
\begin{align*}
\text{(GMFH-CDX)} & = 2 - 3 = -1 \\
\text{(GMPE-CDX)} & = \text{N/A} - 3 = \text{N/A} \\
\text{(CMCS-CDX)} & = \text{N/A} - 3 = \text{N/A} \\
\text{Net Adjustment} & = -1
\end{align*}
\]

Result is class 3 with adjustment of -1 from the default value C which equals grade B.
Table 15-3 Wrist Regional Grid (6th ed, 396)

<table>
<thead>
<tr>
<th>Diagnostic Criteria</th>
<th>Class 0</th>
<th>Class 1</th>
<th>Class 2</th>
<th>Class 3</th>
<th>Class 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>RANGES</td>
<td>0%</td>
<td>1% - 13%</td>
<td>14% - 25%</td>
<td>26% - 49%</td>
<td>50% - 69%</td>
</tr>
<tr>
<td>GRADE</td>
<td>BCD</td>
<td>ABCDE</td>
<td>ABDCE</td>
<td>BCD</td>
<td>BCD</td>
</tr>
<tr>
<td>Bone / Joint / Ligament</td>
<td>usual</td>
<td>usual</td>
<td>unusual</td>
<td>usual</td>
<td>usual</td>
</tr>
<tr>
<td>with Arthrodesis (Fusion)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

28% UEI = 17% WPI

15.3e Upper Extremity DBI Examples

<table>
<thead>
<tr>
<th>Example</th>
<th>Region</th>
<th>Class</th>
<th>Diagnosis</th>
<th>Sixth Edition Impairment (WPI %)</th>
<th>Fifth Edition Impairment (WPI %)</th>
</tr>
</thead>
<tbody>
<tr>
<td>15-1</td>
<td>Finger</td>
<td>2</td>
<td>Burningdysesthesia, resolved with</td>
<td>2%</td>
<td>2%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>treatment</td>
<td></td>
<td></td>
</tr>
<tr>
<td>15-2</td>
<td>Finger</td>
<td>1</td>
<td>Trapezius dysfunction</td>
<td>1%</td>
<td>1%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15-3</td>
<td>Finger</td>
<td>3</td>
<td>Burningdysesthesia, symptomatic</td>
<td>1%</td>
<td>1%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15-4</td>
<td>Wrist</td>
<td>2</td>
<td>Nerve evulsion/pri p denervation,</td>
<td>2%</td>
<td>2%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>residual</td>
<td></td>
<td></td>
</tr>
<tr>
<td>15-5</td>
<td>Wrist</td>
<td>3</td>
<td>Conduction</td>
<td>3%</td>
<td>3%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15-6</td>
<td>Wrist</td>
<td>4</td>
<td>Gomper's test</td>
<td>2%</td>
<td>2%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15-7</td>
<td>Elbow</td>
<td>2</td>
<td>Nerve evulsion/pri p denervation,</td>
<td>1%</td>
<td>1%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>residual</td>
<td></td>
<td></td>
</tr>
<tr>
<td>15-8</td>
<td>Elbow</td>
<td>3</td>
<td>Elbow toac tic tendon rupture</td>
<td>1%</td>
<td>1%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15-9</td>
<td>Shoulder</td>
<td>1</td>
<td>Nonspecific shoulder pain</td>
<td>1%</td>
<td>1%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15-10</td>
<td>Shoulder</td>
<td>2</td>
<td>Status post rotator cuff repair</td>
<td>4%</td>
<td>4%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15-12</td>
<td>Shoulder</td>
<td>2</td>
<td>Trapezius anteropryzzy</td>
<td>1%</td>
<td>1%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Average</td>
<td></td>
<td>4%</td>
<td>4%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Chapter 16
The Lower Extremities

AMA Guides to the Evaluation of Permanent Impairment
Sixth Edition

Introduction

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

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

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

Table 16-2 Foot and Ankle Regional Grid

(Fifth ed, 502)

<table>
<thead>
<tr>
<th>Diagnostic Criteria</th>
<th>Class 0</th>
<th>Class 1</th>
<th>Class 2</th>
<th>Class 3</th>
<th>Class 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>RANGE (%)</td>
<td>0%</td>
<td>1% - 13%</td>
<td>14% - 25%</td>
<td>26% - 49%</td>
<td>50% - 100%</td>
</tr>
<tr>
<td>GRADE</td>
<td>BCD</td>
<td>ABCDE</td>
<td>ABCDE</td>
<td>BCDE</td>
<td></td>
</tr>
<tr>
<td>Joint Instability / Ligamentous laxity - traumatic</td>
<td>3 x 0 x 7</td>
<td>Mild</td>
<td>Stress radiograph, 2 - 3 mm</td>
<td>Excess opening or 5 - 9 degrees VARUS Opening compared to Normal opposite side</td>
<td></td>
</tr>
</tbody>
</table>

Case Example: Ankle Instability

Diagnosis-Based Impairment

Adjustment Factors – Grade Modifiers

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Sixth Edition: Calculation

<table>
<thead>
<tr>
<th>CDX</th>
<th>GMFH</th>
<th>GMPE</th>
<th>CMCS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0</td>
<td>1</td>
<td>n/a</td>
</tr>
</tbody>
</table>

Net Adjustment Calculations

\[(\text{GMFH-CDX}) = 0 - 1 = -1\]

\[(\text{GMPE-CDX}) = 1 - 1 = 0\]

\[(\text{CMCS-CDX}) = \text{n/a} - 1 = \text{n/a}\]

Net Adjustment = -1

Result is Class 1 grade B.

---

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

<table>
<thead>
<tr>
<th>Diagnostic Criteria</th>
<th>Class 0</th>
<th>Class 1</th>
<th>Class 2</th>
<th>Class 3</th>
<th>Class 4</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0%</td>
<td>1% - 13%</td>
<td>14% - 25%</td>
<td>26% - 49%</td>
<td>50% - 100%</td>
</tr>
<tr>
<td>GRADE</td>
<td>A</td>
<td>B</td>
<td>C</td>
<td>D</td>
<td>E</td>
</tr>
<tr>
<td>Joint instability / ligamentous laxity - traumatic</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>F</td>
<td>G</td>
<td>H</td>
<td>I</td>
<td>J</td>
</tr>
<tr>
<td></td>
<td>4 - 6 F</td>
<td>7 - 9 F</td>
<td>10 - 12 F</td>
<td>13 - 15 F</td>
<td>16 - 18 F</td>
</tr>
<tr>
<td></td>
<td>GMFS - CDX</td>
<td>GMPE - CDX</td>
<td>CMPS - CDX</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

---

16.3e Lower Extremity DBI Examples
(Whole Person Impairments)

<table>
<thead>
<tr>
<th>Ex.</th>
<th>Region</th>
<th>Class</th>
<th>Diagnosis</th>
<th>6th ed. (WPI %)</th>
<th>5th ed. (WPI %)</th>
</tr>
</thead>
<tbody>
<tr>
<td>16-1</td>
<td>Foot</td>
<td>0</td>
<td>Contusion</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>16-2</td>
<td>1</td>
<td>Plantar fasciitis</td>
<td>1%</td>
<td>0%</td>
<td></td>
</tr>
<tr>
<td>16-3</td>
<td>1</td>
<td>Ankle instability</td>
<td>2%</td>
<td>2%</td>
<td></td>
</tr>
<tr>
<td>16-4</td>
<td>2</td>
<td>Bilateral fracture</td>
<td>8%</td>
<td>10%</td>
<td></td>
</tr>
<tr>
<td>16-5</td>
<td>3</td>
<td>Ankle arthritis</td>
<td>10%</td>
<td>12%</td>
<td></td>
</tr>
<tr>
<td>16-6</td>
<td>5</td>
<td>Total ankle replacement with poor result</td>
<td>24%</td>
<td>30%</td>
<td></td>
</tr>
<tr>
<td>16-7</td>
<td>Knee</td>
<td>0</td>
<td>Knee arthroscopic</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>16-8</td>
<td>1</td>
<td>Meniscal tear</td>
<td>1%</td>
<td>1%</td>
<td></td>
</tr>
<tr>
<td>16-9</td>
<td>1</td>
<td>ACL and medial meniscus repair</td>
<td>5%</td>
<td>4%</td>
<td></td>
</tr>
<tr>
<td>16-10</td>
<td>2</td>
<td>Subluxing patella</td>
<td>6%</td>
<td>3%</td>
<td></td>
</tr>
<tr>
<td>16-11</td>
<td>3</td>
<td>Total ankle replacement</td>
<td>15%</td>
<td>20%</td>
<td></td>
</tr>
<tr>
<td>16-12</td>
<td>4</td>
<td>Knee arthritis</td>
<td>20%</td>
<td>20%</td>
<td></td>
</tr>
<tr>
<td>16-13</td>
<td>Hip</td>
<td>0</td>
<td>Contusion</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>16-14</td>
<td>1</td>
<td>Hip dislocation and relocation</td>
<td>1%</td>
<td>1%</td>
<td></td>
</tr>
<tr>
<td>16-15</td>
<td>3</td>
<td>Hip fracture</td>
<td>12%</td>
<td>25%</td>
<td></td>
</tr>
<tr>
<td>Ave.</td>
<td></td>
<td></td>
<td></td>
<td>7%</td>
<td>8%</td>
</tr>
</tbody>
</table>
Chapter 17

Spine

AMA Guides to the Evaluation of Permanent Impairment
Sixth Edition

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

Sixth Edition – Chapter 17

Three Spine Regions And Pelvis

- Cervical spine
- Thoracic spine
- Lumbar spine
- Pelvis

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Introduction

- 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

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

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

<table>
<thead>
<tr>
<th>Class</th>
<th>Problem</th>
<th>Cervical Spine</th>
<th>Thoracic Spine</th>
<th>Lumbar Spine</th>
<th>Pelvis</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>No objective findings</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>1</td>
<td>Mild</td>
<td>1% - 8%</td>
<td>1% - 6%</td>
<td>1% - 9%</td>
<td>1% - 3%</td>
</tr>
<tr>
<td>2</td>
<td>Moderate</td>
<td>9% - 14%</td>
<td>7% - 11%</td>
<td>10% - 14%</td>
<td>4% - 6%</td>
</tr>
<tr>
<td>3</td>
<td>Severe</td>
<td>15% - 24%</td>
<td>12% - 17%</td>
<td>15% - 24%</td>
<td>7% - 11%</td>
</tr>
<tr>
<td>4</td>
<td>Very Severe</td>
<td>25% - 30%</td>
<td>17% - 22%</td>
<td>25% - 33%</td>
<td>12% - 17%</td>
</tr>
</tbody>
</table>
Summary of Rating Process

Less Common diagnosis?
(Pseudoarthrosis, Spinal Stenosis, Spondylolisthesis, Fracture, Dislocation, Post-operative Complication)

No

Disc Herniation or AOMSI?

No

Rate Non-Specific Pain

Yes

Rate based on Levels and Radiculopathy

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

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)
Example: Lumbar Discectomy with Residual Radiculopathy

- Functional Assessment
  - PDQ 80
  - Grade Modifier 2
- Physical Exam
  - + SLR
  - Grade Modifier 2
- Clinical Studies
  - Imaging studies confirm diagnosis
  - Grade Modifier 2

Example: Lumbar Discectomy with Residual Radiculopathy

Diagnosis-Based Impairment

<table>
<thead>
<tr>
<th>Diagnosis Criteria</th>
<th>Class 0</th>
<th>Class 1</th>
<th>Class 2</th>
<th>Class 3</th>
<th>Class 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Functional History</td>
<td>No problem</td>
<td>Mild problem</td>
<td>Moderate problem</td>
<td>Severe problem</td>
<td>Very severe problem</td>
</tr>
<tr>
<td>Physical Exam</td>
<td>No problem</td>
<td>Mild problem</td>
<td>Moderate problem</td>
<td>Severe problem</td>
<td>Very severe problem</td>
</tr>
<tr>
<td>Clinical Studies</td>
<td>No problem</td>
<td>Mild problem</td>
<td>Moderate problem</td>
<td>Severe problem</td>
<td>Very severe problem</td>
</tr>
</tbody>
</table>

Example: Lumbar Discectomy with Residual Radiculopathy

<table>
<thead>
<tr>
<th>CDX</th>
<th>GMFH</th>
<th>GMPE</th>
<th>CMCS</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
</tbody>
</table>

Net Adjustment Calculations

\[(\text{GMFH} - \text{CDX}) = 2 - 2 = 0\]
\[(\text{GMPE} - \text{CDX}) = 2 - 2 = 0\]
\[(\text{CMCS} - \text{CDX}) = 2 - 2 = 0\]

Result is class 2 with adjustment of 0 from the default value C which equals grade C = 12% WPI
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

### 17.3g Spine DBI Examples (Whole Person Impairments)

<table>
<thead>
<tr>
<th>Example</th>
<th>Region</th>
<th>Class</th>
<th>Diagnosis</th>
<th>6th ed. (WPI %)</th>
<th>5th ed. (WPI %)</th>
</tr>
</thead>
<tbody>
<tr>
<td>17-1</td>
<td>Cervical</td>
<td>0</td>
<td>Sprain / strain, resolved</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>17-2</td>
<td>Cervical</td>
<td>1</td>
<td>Disk herniation, resolved radiculopathy</td>
<td>8%</td>
<td>7%</td>
</tr>
<tr>
<td>17-3</td>
<td>Cervical</td>
<td>1</td>
<td>Disk herniation, single level fusion</td>
<td>7%</td>
<td>10%</td>
</tr>
<tr>
<td>17-4</td>
<td>Cervical</td>
<td>2</td>
<td>Disk herniation with radiculopathy</td>
<td>12%</td>
<td>16%</td>
</tr>
<tr>
<td>17-5</td>
<td>Cervical</td>
<td>3</td>
<td>Disk herniation with radiculopathy</td>
<td>12%</td>
<td>23%</td>
</tr>
<tr>
<td>17-6</td>
<td>Cervical</td>
<td>4</td>
<td>Vertebral fractures</td>
<td>26%</td>
<td>22%</td>
</tr>
<tr>
<td>17-7</td>
<td>Thoracic</td>
<td>0</td>
<td>Sprain / strain, resolved</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>17-8</td>
<td>Thoracic</td>
<td>1</td>
<td>Disk herniation</td>
<td>4%</td>
<td>5%</td>
</tr>
<tr>
<td>17-9</td>
<td>Thoracic</td>
<td>3</td>
<td>Vertebral fractures at multiple levels</td>
<td>12%</td>
<td>10%</td>
</tr>
<tr>
<td>17-10</td>
<td>Lumbar</td>
<td>0</td>
<td>Sprain / strain, resolved</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>17-11</td>
<td>Lumbar</td>
<td>1</td>
<td>Disk herniation, resolved</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>17-12</td>
<td>Lumbar</td>
<td>1</td>
<td>Non-specific pain</td>
<td>1%</td>
<td>3%</td>
</tr>
<tr>
<td>17-13</td>
<td>Lumbar</td>
<td>2</td>
<td>Disk herniation with radiculopathy</td>
<td>12%</td>
<td>16%</td>
</tr>
<tr>
<td>17-14</td>
<td>Lumbar</td>
<td>2</td>
<td>Disk herniation with radiculopathy</td>
<td>13%</td>
<td>26%</td>
</tr>
<tr>
<td>17-15</td>
<td>Lumbar</td>
<td>3</td>
<td>Disk herniation with radiculopathy</td>
<td>15%</td>
<td>18%</td>
</tr>
</tbody>
</table>

Average: 10% 12% WPI

### Myths
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 a 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).

Limited Correlation Among Pain, Impairment, Disability And Work Capability

Impairment ≠ Disability

Lost leg, not heart. Could only see possibilities.


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Biopsychosocial Model of Human Illness and Disability

Social
- Culture
- Social Interactions
- The sick role

Psychological
- Illness behavior
- Beliefs, coping strategies
- Emotions, distress

Biological
- Neurophysiology
- Physiological dysfunction
- Tissue damage

ICF (WHO 2001)
- Environmental factors
- Participation restrictions
- Activity limitations
- Personal factors
- Impairments
- Body structures and functions

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

Positive Response (Except Plaintiff Counsel)
Sixth Edition Survey – Physicians

Positive response, overall, by physicians.

Sixth Edition Survey – Plaintiff Attorneys

Negative response by plaintiff attorneys.

MYTH – Most impairment ratings by prior Editions are accurate

Review of 2798 cases nationally

Error Rate: 78%
Average Original Rating: 20.5% WPI
Average Revised Rating: 7.4% WPI
Impairment Ratings – Comparison
Original vs. Expert (corrected on review)

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

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).
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

Comparison of Diagnosis-based Impairment Rating Examples

Insights
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.

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

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.
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.

Thank you
www.impairment.com