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THE SPINE AMA GUIDES CHAPTER 15

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HOUSEKEEPING ITEMS

- To control background noise, all attendees will be muted.
- Access PowerPoint: www.bradfordbarthel.com > Education > Webinars & Videos or through GoTo Panel
- We will be recording today's presentation and the video will be posted to our website.
- We encourage questions - submit through GoToWebinar Panel; they will be answered at the end of the presentation, time permitting.
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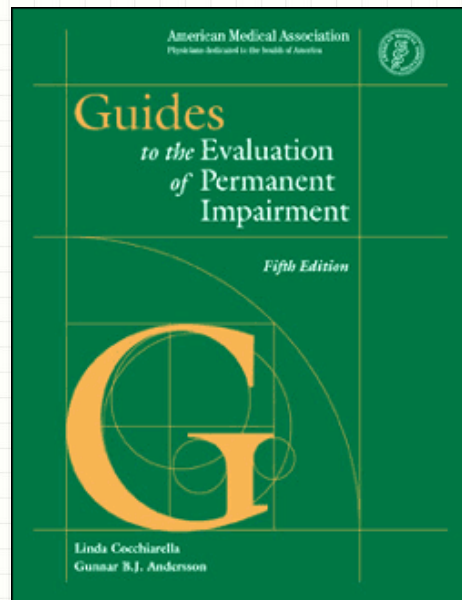
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3



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4

Most Frequently Used Chapters

- Chapters 1 & 2 --- The 'Constitution'
 - From page 17, in the Introduction to Chapter 2, the Practical Application of the Guides:

“Two physicians, following the methods of the Guides to evaluate the same patient, should report similar results and reach similar conclusions. Moreover, if the clinical findings are fully described, any knowledgeable observer may check the findings with the Guides criteria.”

 - The Almaraz Guzman en banc decision of 9/3/2009:

“...by requiring use of the AMA Guides to determine impairment, the Legislature furthered its expressly stated goal of achieving “consistency, uniformity, and objectivity.”
- Chapter 15 --- Spine
- Chapter 16 --- Upper Extremity (UE)
- Chapter 17 --- Lower Extremity (LE)



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5

Almaraz/ Guzman

- Almaraz/ Guzman rating not automatic
- Must be substantial evidence
- Within four corners of AMA Guides
- Physician rationale required

2015 DWC Educational Conference

Evidence and reasoning



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6

Chapter 15 – The Spine

there are errata

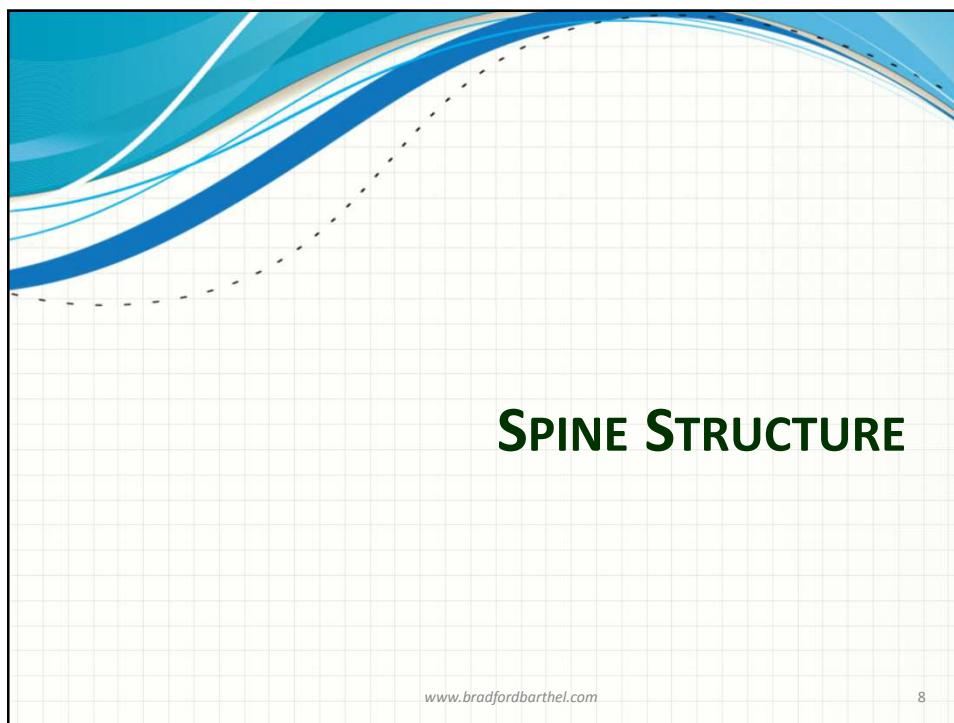
- Spine Structure
- Radiculopathy
- DRE Method of Evaluation
- ROM Method of Evaluation

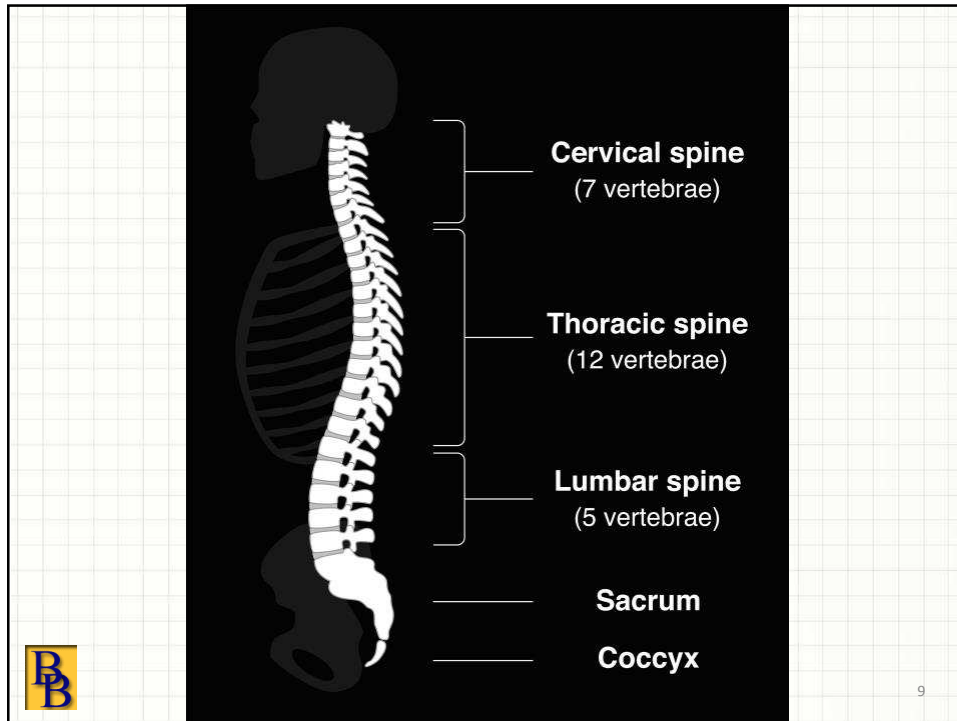
- Impairment evaluations are performed after the injured worker attains MMI



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7





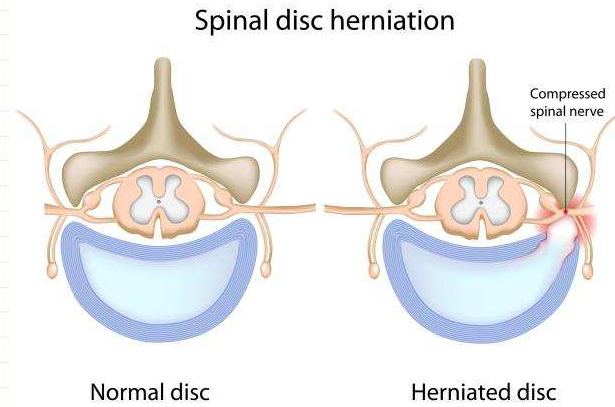
Spine – Motion Segment

A Motion Segment is two adjacent vertebrae, intervertebral disc, facet joints, and ligamentous structure

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Herniated Disc

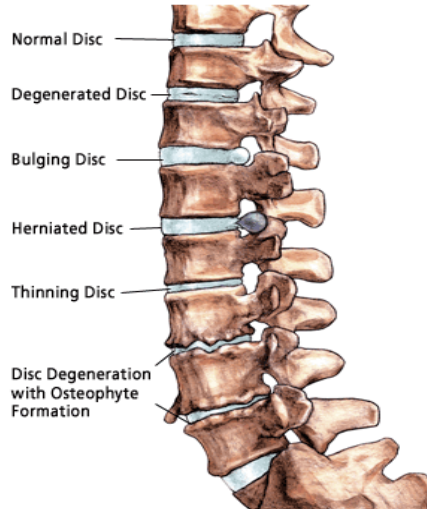
if the disc compresses a nerve root, there may be radiculopathy.



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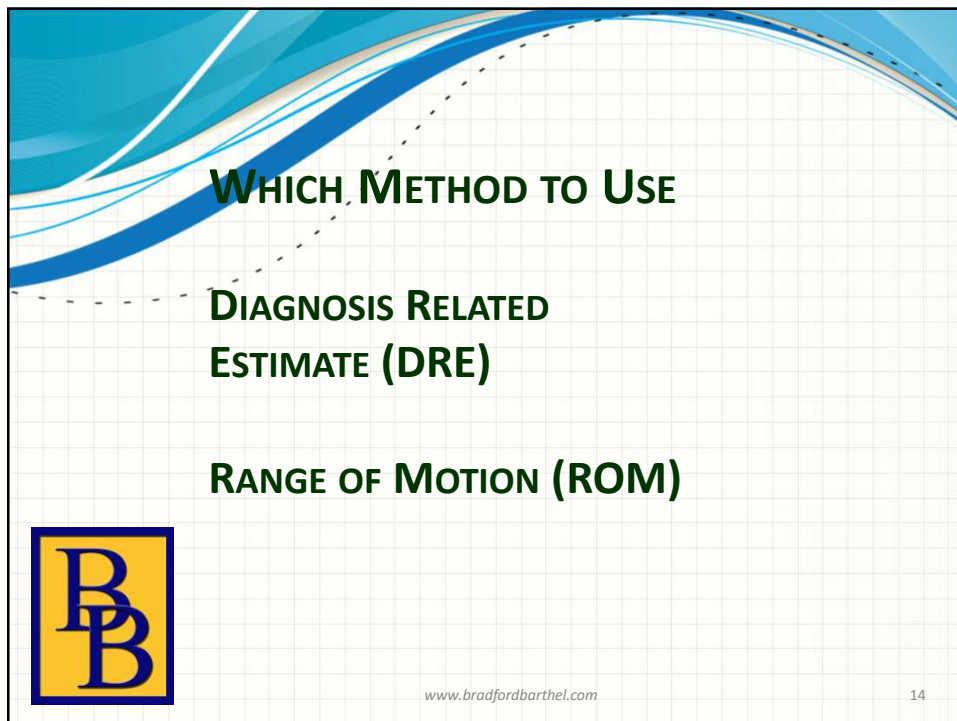
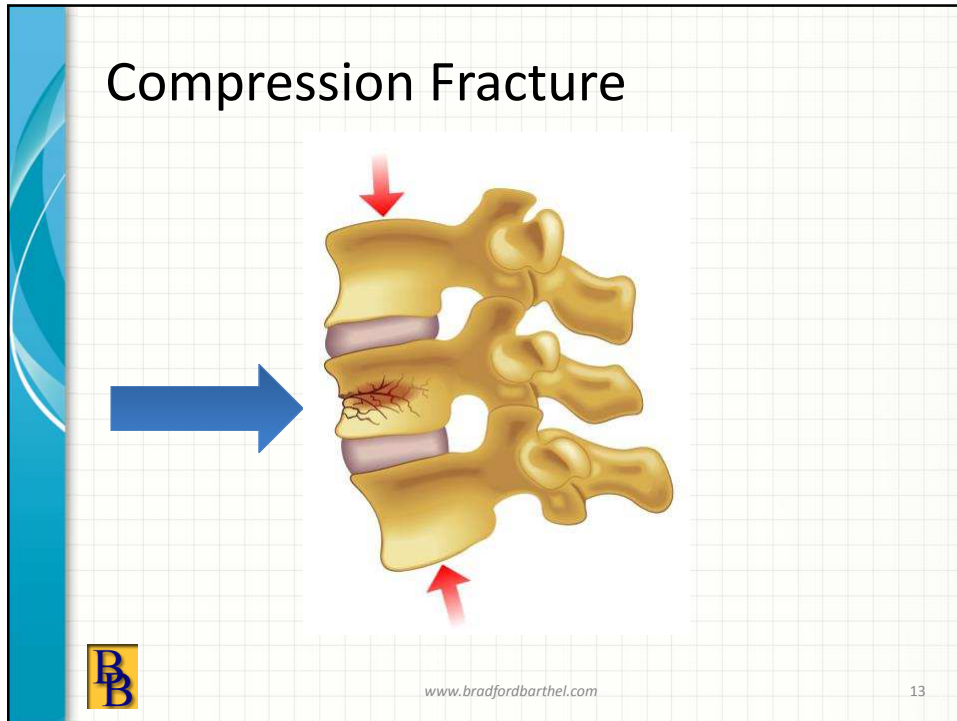
11


Examples of Disc Problems



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12






**2014 DWC EDUCATIONAL
CONFERENCE**


**TEN COMMON ISSUES AND
ERRORS IN RATINGS**

**#1 = INCORRECT USE OF SPINE
METHOD: DRE VS. ROM**



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15



DRE vs. ROM

- Addressed often by the DEU in the Annual Educational Conferences
 - 2006
 - 2008
 - 2009
 - 2011
 - 2013
 - 2014
 - 2015

2008 and 2013 included extensive review of this issue



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16

DRE METHOD PRINCIPAL METHODOLOGY

THE DRE METHOD IS THE PRINCIPLE METHODOLOGY USED TO
EVALUATE AN INDIVIDUAL WHO HAS HAD A DISTINCT INJURY.

(AMA GUIDES - PAGE 379).

(CONTINUOUS TRAUMA INJURY IS AN INJURY - SEE EXAMPLE 15-7, PAGE 389)

CRITERIA

- **SINGLE LEVEL INVOLVEMENT**
- **CORTICOSPINE INJURY**

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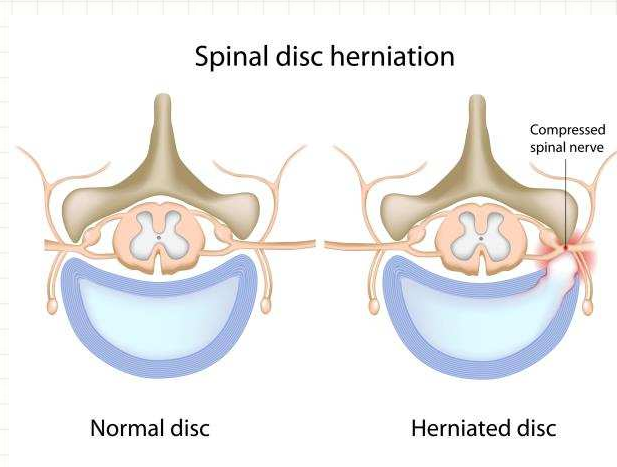
ROM Method

- **Criteria**
 - **Multi-level or bilateral radiculopathy**
 - **Multi-level surgery**
 - **Multi-level AOMSI**
 - **Multi-level fracture**
 - **Recurrent radiculopathy**

2013 – 20th Annual DWC Educational Conference



Radiculopathy



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19

Radiculopathy

- The AMA Guides provides a definition of radiculopathy:

“Radiculopathy for the purposes of the Guides is defined as **significant alteration in the function of a nerve root or nerve roots and is usually caused by pressure on one or several nerve roots**. The diagnosis requires a dermatomal distribution of pain, numbness, and/or paresthesias in a dermatomal distribution. A root tension sign is usually positive. The diagnosis of herniated disk must be substantiated by an appropriate finding on an imaging study. The presence of findings on an imaging study in and of itself does not make the diagnosis of radiculopathy. There must also be clinical evidence as described above.” (p. 382 – **bold added**)



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20

Radiculopathy

- Box 15-1 on page 382 of the AMA Guides reviews: Electrodiagnostic Verification of Radiculopathy
- “Unequivocal electrodiagnostic evidence of acute nerve root pathology...
- The quality of the person performing and interpreting the study is critical...
- Electromyography does not detect all compressive radiculopathies and cannot determine the cause of the nerve root pathology. On the other hand, electromyography can detect noncompressive radiculopathies, which are not identified by imaging studies.”



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21

Noncompressive spinal radiculitis

“Sciatica can be caused by a **herniated disc (compressive neuropathy) or by the process of disc degeneration (noncompressive neuropathy)**. Laminectomy and discectomy usually produce a good result in compressive neuropathy, whereas surgery for noncompressive neuropathy, if necessary, consists of complete excision of the disc and anterior interbody fusion, posterior fusion, or both. **Noncompressive spinal radiculitis is a biochemical, not a biomechanical, problem.** Phospholipase A2, substance P, and increased fibrinolytic activity have been implicated in the process.”

(Bold added)

- <http://www.ncbi.nlm.nih.gov/pubmed/1501920>



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22

Radiculopathy

- “It is important to note that a positive imaging study in and of itself does not make the diagnosis...An imaging study alone is insufficient to qualify for a DRE category. Individuals with electromyography (EMG) studies that are clearly positive support a diagnosis of radiculopathy and therefore qualify for at least DRE category III.”

AMA Guides – page 378



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23

Radiculopathy

Table 15-3 – Lumbar DRE Category III

– “significant signs of radiculopathy...impairment may be verified by electrodiagnostic findings”

Table 15-4 - Thoracic DRE Category III

“ongoing neurologic impairment...impairment may be verified by electrodiagnostic testing”

Table 15-5 – Cervical DRE Category III

“significant signs of radiculopathy...the neurologic impairment may be verified by electrodiagnostic findings”



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24

Radiculopathy

- **From the 2009 DWC Educational Conference:**
- Radiculopathy is the significant alteration of function of a nerve root. (AMA, p.382) – pain, numbness or paresthesia in a dermatomal pattern.
 - Clinical findings must be confirmed by imaging study or EMG – imaging alone does not make the diagnosis of radiculopathy
- **From the 2013 DWC Educational Conference:**
- **Radiculopathy**
 - Verified radiculopathy
 - Clinical findings in dermatome pattern
 - Corresponding imaging studies
 - Unverified radiculopathy
 - No corresponding imaging studies



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Radiculopathy

- There remains room for interpretation as to what is necessary to confirm radiculopathy
 - Clinical findings – “significant signs...”
 - Nerve root pattern: motor deficit; sensory deficit; pain; atrophy; loss of reflex(es)...
 - Correlating diagnostic studies
 - Imaging studies
 - EMG
 - Be cautious of equivocal reporting:
 - “Consistent with”
 - “Evidence of”
 - “Suggestive of”



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26

Spine DRE Tables Five Categories

Table 15-3 – Lumbar DRE - page 384

Table 15-4 – Thoracic DRE – page 389

Table 15-5 – Cervical DRE – page 392

- Category I – 0% WPI
- Category II – 5 to 8% WPI
- Category III – 10 to 13% WPI - lumbar; 15-18% - cervical, thoracic
- Category IV – 20 to 23% WPI – lumbar, thoracic; 25-28% - cervical
- Category V – 25 to 28% WPI – lumbar, thoracic; 35-38% - cervical



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27

DRE Categories

2013 DWC Educational Conference included a succinct review of the five categories:

DRE I	Subjective findings only
DRE II	Muscle guarding, spasm/ asymmetric ROM Unverified radiculopathy
DRE III	Resolved verified radiculopathy unresolved verified radiculopathy Spine surgery one level
DRE IV	Alteration motion segment integrity (fusion) Bilateral or multi-level radiculopathy (cervical, thoracic spines)
DRE V	Alteration motion segment integrity with radiculopathy



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28

Symptoms, Signs, & Tests

- Muscle guarding
- Muscle spasm
- Asymmetry of spinal motion
- Non-verifiable radicular root pain
- Fractures
 - compression of one vertebral body
 - Posterior element fracture without dislocation
 - A spinous or transverse process fracture
- Radiculopathy
 - No history of radiculopathy
 - Resolved radiculopathy without surgery
 - Resolved radiculopathy with surgery
 - Radiculopathy at MMI
- Surgeries
- Alteration of Motion Segment Integrity
 - Fusion
 - Instability - increased translational or angular motion



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DRE Categories

- DRE Categories I and II evaluate sprains/strains; resolved radiculopathy without surgery; less significant fractures.
- DRE Categories III, IV, V require history of surgery, fracture (of increasing severities), AOMSI, or/ and confirmed radiculopathy at MMI.



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30

DRE Method

Corticospinal Tract Injury

“...rated by the DRE method because assessing ROM in paralyzed individuals is difficult.” (Page 374)

Injury to spinal cord itself, not a nerve root

Note: the first step is:

- “identifying the level of cord involvement” – AMA Guides, page 395;
- “Identify the level of cord involvement” - 2013 DWC Educational Conference

Table 15-6, pages 396-397 is also referenced for Rating Corticospinal Tract Impairment Each of seven potential impairments has its own Impairment Number



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31

EXAMPLES DRE METHOD

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32

DRE Example – Category I

Ex 15-12, page 393 of The Guides

- 37 year painter with complaints of neck discomfort when painting.
- Current symptoms: intermittent neck pain, occasionally extending into upper back bilaterally, moreso on the left side.
- Full neck motion, but pain at the extremes; some tenderness over the trapezius; no spasms; no neurologic findings; normal x-rays.
- Diagnosis: intermittent cervical neck strain.
- Impairment: 0% WPI.



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DRE Example – Category II

- Cellophane bag machine operator
- 48 years old at time of injury
- MRI confirms herniation at L5-S1
- Radiculopathy with correlating findings.
- Radiculopathy resolved with physical therapy
- Minimal ADL impact



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- Impairment number
 - 15.03.01.00
- WPI and FEC
 - 15.03.01.00 – 5 – [1.4] (DOI 1/1/13 or later)
- FEC adjustment
 - 15.03.01.00 – 5 – [1.4]7
- Occupation group
 - 15.03.01.00 – 5 – [1.4]7 – 330
- Occupational variant
 - 15.03.01.00 – 5 – [1.4]7 – 330F
- Occupational adjustment
 - 15.03.01.00 – 5 – [1.4]7 – 330F – 7
- Age adjustment
 - 15.03.01.00 – 5 – [1.4]7 – 330F – 7 – 8% PD
 - Or if DOI is before 1/1/13:
 - 15.03.01.00 – 5 – [5]6 – 330F – 6 – 7% PD



DRE Example – Category III

- Confirmed disc herniation left L4-5, with confirmed left L5 radiculopathy.
- L4-5 discectomy/ laminectomy with resolution of symptoms.
- DRE Lumbar Category III – 12% WPI assessed
- Coach, professional football team
- 53 years old at time of injury



- Impairment number
 - 15.03.01.00
- WPI and FEC
 - 15.03.01.00 – 12 – [1.4]
- FEC adjustment
 - 15.03.01.00 – 12 – [1.4]17
- Occupation group
 - 15.03.01.00 – 12 – [1.4]17 – 390
- Occupational variant
 - 15.03.01.00 – 12 – [1.4]17 – 390G
- Occupational adjustment
 - 15.03.01.00 – 12 – [1.4]17 – 390G – 19
- Age adjustment
 - 15.03.01.00 – 12 – [1.4]17 – 390G – 19 – 23% PD
 - Or: if DOI is prior to 1/1/13
 - 15.03.01.00 – 12 – [5]15 – 390G – 17 – 20% PD



ROM METHOD



When to use the ROM Method

- Impairment is caused by illness, not specific (or CT) injury, or cause is uncertain
- Statutorily mandated
- Multilevel involvement in the same region
- Multilevel alteration of motion segment integrity (AOMSI) - Fusions



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39

ROM Method

Criteria

- Multi-level or bilateral radiculopathy
- Multi-level surgery
- Multi-level AOMSI
- Multi-level fracture
- Recurrent radiculopathy

- DWC 20th Annual Educational Conference – 2013



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40

Multilevel Involvement

DEU Position – Multi-level

- Multi-level bulges, degenerative changes, or herniations are not sufficient by themselves to invoke the ROM method.
- There must be multi-level (or bilateral) radiculopathy

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41

Multilevel Example

Multi-level example

- 37-year-old woman experiences persistent pain in the neck and lateral right forearm and thumb (C6 distribution) following rear-end collision
- MRI shows 3 mm herniated disks at C4-5, and C5-6
- DRE or ROM? **DRE, radiculopathy only C5-6**

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42

Recurrent Injury

DEU Position – Recurrent Injury

- A second injury to the same spinal region by itself is not sufficient to invoke ROM
- There must be recurrent radiculopathy

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43

ROM Method

- Consists of three (3) elements:
 - Range of motion of the impaired spine region
 - Accompanying diagnosis
 - Spinal nerve deficit
 - Motor
 - Sensory
- At the 2015 DWC Educational Conference
- Spinal nerve deficit is not always applicable; if not addressed, look for sensory or motor complaints



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44

Element 1

Range of Motion

- Two – inclinometer technique
- Physician should seek consistency
 - Inconsistent results are repeated
 - Disregard if results remain inconsistent
- Should match known pathology
- At least three measurements for each motion
 - If average is less than 50° , $\pm 5^\circ$ of mean
 - If average is more than 50° , $\pm 10\%$ of mean
 - May be repeated up to six times
- Greatest measurement used for impairment



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45

Element 1

Range of Motion (continued)

- Lumbar flexion requires Sacral (Hip) Flexion Angle – accessory validity test – p 406
- All impairments within same region are added



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46

Table 15 – 8
(page 407)

Table 15-8 Impairment Due to Abnormal Motion of the Lumbar Region: Flexion and Extension*

The proportion of flexion and extension of total lumbosacral motion is 75%.

Sacral (Hip) Flexion Angle (°)	True Lumbar Spine Flexion Angle (°)		% Impairment of the Whole Person
	60+	45	
45+	60+		0
	45		2
	30		4
	15		7
	0		10
30-45	40+		4
	20		7
	0		10
0-29	30+		5
	15		8
	0		11

True Lumbar Spine Extension From Neutral Position (0°) to:	Degrees of Lumbosacral Spine Motion		% Impairment of the Whole Person
	Lost	Retained	
0	25	0	7
10	15	10	5
15	10	15	3
20	5	20	2
25	0	25	0

47

Motion Impairment Tables

- Lumbar
 - Table 15-8 – Flexion and Extension, page 407
 - Table 15-9 – Right and Left Lateral Bending, page 409
- Thoracic
 - Table 15-10 – Flexion, page 411
 - Table 15-11 – Right and Left Rotation, page 414
- Cervical
 - Table 15-12 – Flexion and Extension, page 418
 - Table 15-13 – Right and Left Lateral Bending, page 420
 - Table 15-14 – Right and Left Rotation, page 421



Element 2

Accompanying Diagnosis

- All impairment found in Table 15-7, page 404
 - Four sections (Disorders)
 - If more than one applies, use the one providing greatest impairment
 - Table only used when the ROM method is used
- Always read the footnotes
- When multiple levels involved, impairment added for additional levels only



Table 15-7 Criteria for Rating Whole Person Impairment Percent Due to Specific Spine Disorders to Be Used as Part of the ROM Method*

Disorder	% Impairment of the Whole Person		
	Cervical	Thoracic	Lumbar
I. Fractures			
A. Compression of one vertebral body			
0%-25%	4	2	5
26%-50%	6	3	7
> 50%	10	5	12
B. Fracture of posterior element (pedicle, lamina, articular process, transverse process)	4	2	5
<small>Note: An impairment due to compression of a vertebra and one due to fracture of a posterior element are combined using the Combined Values Chart (p. 404). Fractures or compressions of several vertebrae are combined using the Combined Values Chart.</small>			
C. Reduced dislocation of one vertebra	5	3	6
<small>If two or more vertebrae are dislocated and reduced, combine the estimates using the Combined Values Chart. An unreduced dislocation causes impairment until it is reduced; the physician should then evaluate the impairment on the basis of the individual's condition with the dislocation reduced. If no reduction is possible, the physician should evaluate the impairment on the basis of the range-of-motion and neurologic findings according to criteria in this chapter and Chapter 13, The Central and Peripheral Nervous System.</small>			
II. Intervertebral disk or other soft-tissue lesion			
<small>Diagnosis must be based on clinical symptoms and signs and imaging information.</small>			
A. Unoperated on, with no residual signs or symptoms	0	0	0
B. Unoperated on, with medically documented injury, pain, and rigidity* associated with none to minimal degenerative changes on structural tests,†	4	2	5
C. Unoperated on, stable, with medically documented injury, pain, and rigidity* indicated with moderate to severe degenerative changes on structural tests;† includes herniated nucleus pulposus with or without radiculopathy	6	3	7
D. Surgically treated disk lesion without residual signs or symptoms, includes disk injection	7	4	8
E. Surgically treated disk lesion with residual, medically documented pain and rigidity	9	5	10
F. Multiple levels, with or without operations and with or without residual signs or symptoms	Add 1% per level		
G. Multiple operations with or without residual signs or symptoms	Add 2%		
1. Second operation	Add 1% per operation		
2. Third or subsequent operation	Add 1% per operation		
III. Spondylolysis and spondylolisthesis, not operated on			
A. Spondylolysis or grade I (1%-25% slippage) or grade II (26%-50% slippage) spondylolisthesis, accompanied by medically documented injury that is stable, and medically documented pain and rigidity with or without muscle spasm	6	3	7
B. Grade III (51%-75% slippage) or grade IV (76%-100% slippage) spondylolisthesis, accompanied by medically documented injury that is stable, and medically documented pain and rigidity with or without muscle spasm	8	4	9
IV. Spinal stenosis, segmental instability, spondylolisthesis, fracture, or dislocation, operated on			
A. Single-level decompression without spinal fusion and without residual signs or symptoms	7	4	8
B. Single-level decompression without spinal fusion with residual signs or symptoms	9	5	10
C. Single-level spinal fusion with or without decompression without residual signs or symptoms	8	4	9
D. Single-level spinal fusion with or without decompression with residual signs and symptoms	10	5	12
E. Multiple levels, operated on, with residual, medically documented pain and rigidity	Add 1% per level		
F. Multiple levels, operated on, with residual, medically documented pain and rigidity	Add 2%		
1. Second operation	Add 1% per operation		
2. Third or subsequent operation	Add 1% per operation		

* The phrase "medically documented injury, pain, and rigidity" implies not only that an injury or illness has occurred but also that the condition is stable, as shown by the patient's history, examination, and other diagnostic data, and that a permanent impairment exists, which is or has been partially due to the condition being evaluated.

† Structural tests include radiographs, myelograms with and without CT scan, CT scan and MRI with and without contrast, and disialogram with and without CT scan.



Element 2

Accompanying Diagnosis (continued)

- Table 15-7 determines impairment number
 - I. Fractures – 15.XX.02.01
 - II. Soft Tissue Lesion – 15.XX.02.02
 - III. Spondylolysis, no operation – 15.XX.02.03
 - IV. Stenosis, operation – 15.XX.02.04
 - Replace XX with appropriate spinal region number
 - 01 for cervical
 - 02 for thoracic
 - 03 for lumbar



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51

Element 3

Spinal Nerve Deficit

- Use Tables on page 424
 - Tables 15-17 and 15-18 provide extremity impairment, not WPI
- Not frequently used by doctors
- Process used is similar to:
 - Peripheral nerve disorders in extremities
 - Strength loss in shoulder and elbow
- Nerve impairments are adjusted separately
 - Sensory – 15.XX.02.05
 - Motor – 15.XX.02.06



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52

Table 15-17 Unilateral Spinal Nerve Root Upper Extremity Impairment*


Nerve Root Impaired	Maximum % Loss of Function Due to Sensory Deficit or Pain	Maximum % Loss of Function Due to Strength
C5	5	30
C6	8	35
C7	5	35
C8	5	45
T1	5	20

* For description of the process of determining impairment percent, see text.

Table 15-18 Unilateral Spinal Nerve Root Lower Extremity Impairment*

Nerve Root Impaired	Maximum % Loss of Function Due to Sensory Deficit or Pain	Maximum % Loss of Function Due to Strength
L3	5	20
L4	5	34
L5	5	37
S1	5	20

* For description of the process of determining impairment percent, see text.




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Spinal Nerve Procedure

- Identify nerve(s) involved
- Determine Grade/Deficit (Tables 15-15 and 15-16)
- Obtain maximum value (Tables 15-17 and 15-18)
- For sensory deficit
 - Multiply maximum value by % deficit
 - Repeat for each nerve involved
 - Combine all sensory impairments at extremity level
 - Convert to WPI
- For motor deficit
 - Multiply maximum value by % deficit
 - Repeat for each nerve involved
 - Combine all motor impairments at extremity level
 - Convert to WPI
- Adjust sensory and motor deficit separately



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Combining rules for ROM method

- May have as many as 4 WPI values
 - Loss of motion
 - Accompanying diagnosis
 - Spinal nerve deficit – sensory
 - Spinal nerve deficit – motor
- Combine loss of motion and accompanying diagnosis at WPI level, adjust
- Adjust sensory impairment
- Adjust motor impairment
- Combine



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55

EXAMPLES ROM METHOD



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56

- Fusion at L3-4 and L4-5
- Sacral flexion – 45+°
- True Flexion – 15°, True Extension – 15°
- Left lateral – 20°, Right lateral – 15°
- Nerve deficit – right lower extremity
 - L4 – 30% sensory
 - L5 – 30% sensory
 - L5 – 20% motor
 - Residual signs and symptoms



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57

- Loss of motion element
- Region involved
 - Lumbar
- Table 15-8, Flexion/Extension Impairment
 - 7% WPI flexion
 - 3% WPI extension
- Table 15-9, Lateral Bending Impairment
 - 1% WPI left
 - 2% WPI right
- Now what?
 - Add – 7 + 3 + 1 + 2 = 13% WPI



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58

- Accompanying diagnosis element
- Region involved?
 - Lumbar
- Table 15-7, page 404
- Which disorder?
 - IV D – Stenosis with operation (fusion)
 - 12% WPI (with signs and symptoms)
- Anything else?
 - IV E - 1% WPI for second level
- Now what?
 - Add – $12 + 1 = 13\%$ WPI



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- Spinal nerve deficit element
- Which Table on page 424
- Sensory deficit
 - Nerve(s) involved – right lower extremity
 - L4
 - 5% LE maximum
 - 30% deficit
 - $5\% \times 30\% = 2\%$ LE after rounding
 - L5
 - 5% LE maximum
 - 30% deficit
 - $5\% \times 30\% = 2\%$ LE after rounding
 - Now?
 - Combine sensory impairments – $2 + 2 = 4\%$ LE
- Motor deficit
 - Nerve(s) involved
 - L5
 - 37% LE maximum
 - $37\% \times 20\% = 7\%$ LE after rounding



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Rate this out...

- Lumbar spine ROM method
 - Loss of motion – 13% WPI
 - Accompanying Diagnosis – 13% WPI
 - Sensory – 4% LE = 2% WPI
 - Motor – 7% LE – 3% WPI
- Roofer helper
- 27 years old at date of injury



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- Step 1
 - Combined loss of motion and diagnosis (WPI)
 - $13 + 13 = 24\%$ WPI
 - Adjust
 - DOI 1/1/13 or after
 - $15.03.02.04 - 24 - [1.4]34 - 4801 - 43 - 39\%$



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- Step 2
 - Adjust sensory deficit – 4% LE = 2% WPI
 - 15.03.02.05 – 2 – [1.4]3 – 480I – 5 – 4% PD
- Step 3
 - Adjust motor deficit – 7% LE = 3% WPI
 - 15.03.02.06 – 3 – [1.4]4 – 480I – 7 – 6% PD
- Step 4
 - Total Lumbar Spine PD – Combine 3 ratings
 - DOI 1/1/13 or after: 39 c 6 = 43 c 4 = **45% total PD**



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63

ROM Method

additional notes

In the small number of instances in which the ROM and DRE methods can both be used, evaluate the individual with both methods and award the higher rating.

(AMA Guides - page 380)

If more than one spinal region is impaired and both regions meet the criteria for ROM, then only one can be rated using ROM and the other using DRE.

(AMA Guides - page 381)



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64

The Pelvis

- Pelvic disorders are evaluated using Table 15-19 (page 428)

Table 15-19 Whole Person Impairment Due to Selected Disorders of the Pelvis

Disorder	% Impairment of the Whole Person
1. Healed fracture without displacement or residual sign(s)	0
2. Healed fracture with displacement and without residual sign(s) involving:	
a. Single ramus	0
b. Rami, bilateral	0
c. Ilium	0
d. Ischium	0
e. Symphysis pubis, without separation	5
f. Sacrum	5
g. Coccyx	0
3. Healed fracture(s) with displacement, deformity, and residual sign(s) involving:	
a. Single ramus	0
b. Rami, bilateral	5
c. Ilium	2
d. Ischium, displaced 1 inch or more	10
e. Symphysis pubis, displaced or separated	15
f. Sacrum, into sacroiliac joint	10
g. Coccyx, nonunion or excision	5
h. Fracture into acetabulum	Evaluate on basis of restricted motion of hip joint

The impairment estimate for hemipelvis is 50% of the whole person (Table 17-32).



65

Combine or Add, and CVC

- Chapter 15 – Spine
- **ADD**
- Table 15-7 – page 404: ROM Method – Spinal Disorder – “ADD”
 - Range of Motion impairments – “ADD” (page 408)
- **Combine**
 - ROM Method:
 - spinal disorder with range of motion (p 403)
 - UE or LE impairment from more than one nerve root (Table 15-17, 15-18)



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66

DRE or ROM

- DRE
 - Single level
 - Corticospinal tract
- ROM
 - Multilevel: surgery, fracture, AOMSI
 - Radiculopathy that is:
 - Multilevel
 - Bilateral
 - Recurrent



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67



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68



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69