AMA Guides

Pearls and Pitfalls

Basic Principles

- Three Approaches to Rating:
- 1) Anatomic
- 2) Functional
- 3)Pathologic

Basic Principles

- Three steps of Impairment Evaluation:
- 1) Medical Evaluation
- 2) Analysis of Findings
- 3) Comparison of Findings to the Guides criteria

Basic Principles

- Must be at maximal medical improvement before rating can be done with the AMA Guides
- MMI- A condition or state is well stabilized and unlikely to change substantially in the next year with or without medical treatment (glossary)

Basic Principles

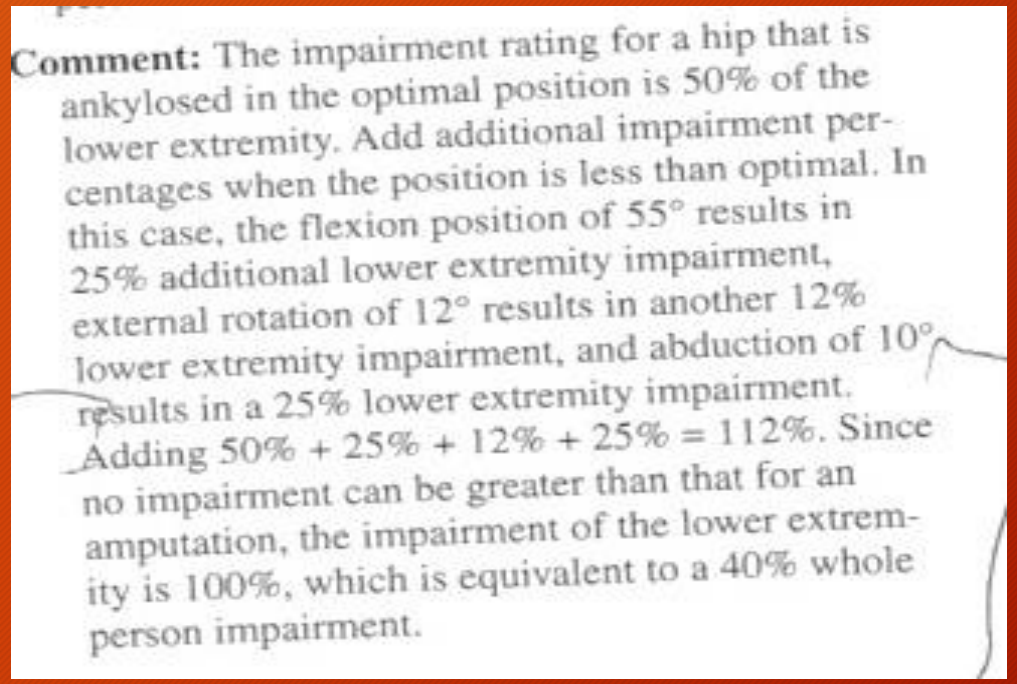
- “Impairment percentages reflect the degree to which the medical condition decreases an individual’s ability to perform daily activities excluding work.”
- Impairment $\neq Disablity$

Key Principle

- No impairment from a member of the body shall exceed the amputation value of the member
- Lower extremity 40% WPI
- Upper extremity 60% WPI

Key Principle

Page 539



Comment: The impairment rating for a hip that is ankylosed in the optimal position is 50% of the lower extremity. Add additional impairment percentages when the position is less than optimal. In this case, the flexion position of 55° results in 25% additional lower extremity impairment, external rotation of 12° results in another 12% lower extremity impairment, and abduction of 10° results in a 25% lower extremity impairment. Adding 50% + 25% + 12% + 25% = 112%. Since no impairment can be greater than that for an amputation, the impairment of the lower extremity is 100%, which is equivalent to a 40% whole person impairment.

Key Principle- Lower Extremity

Table 17-2 Guide to the Appropriate Combination of Evaluation Methods

Open boxes indicate impairment ratings derived from these methods can be combined.

	Limb Length Discrepancy	Gait Derangement	Muscle Atrophy	Muscle Strength	ROM Ankylosis	Arthritis (DJD)	Amputation	Diagnosis-Based Estimates (DBE)	Skin Loss	Peripheral Nerve Injury	Complex Regional Pain Syndrome (CRPS)	Vascular
Limb Length Discrepancy		X					X					
Gait Derangement	X		X	X	X	X	X	X	X	X	X	X
Muscle Atrophy		X		X	X	X	X	X		X	X	
Muscle Strength		X	X		X	X		X		X	0	
ROM Ankylosis		X	X	X		X		X			0	
Arthritis (DJD)		X	X	X	X							
Amputation	X	X	X	X								
Diagnosis-Based Estimates (DBE)		X	X	X	X							
Skin Loss		X										
Peripheral Nerve Injury		X	X	X							X	
Complex Regional Pain Syndrome (CRPS)		X	X	0	0					X		X
Vascular		X									X	

X = Do not use these methods together for evaluating a single impairment.

0 = See specific instructions for CRPS of the lower extremity.

Key Principle – Lower Extremity

In rare cases the gait derangement may supercede the caveat of not exceeding the amputation value.

Page 529 – *"Whenever possible the evaluator should use a more specific method."*

Table 17-5 Lower Limb Impairment Due to Gait Derangement

Severity	Individual's Signs	Whole Person Impairment
Mild	a. Antalgic limp with shortened stance phase and documented moderate to advanced arthritic changes of hip, knee, or ankle	7%
	b. Positive Trendelenburg sign and moderate to advanced osteoarthritis of hip	10%
	c. Same as category a or b above, but individual requires part-time use of cane or crutch for distance walking but not usually at home or in the workplace	15%
	d. Requires routine use of short leg brace (ankle-foot orthosis [AFO])	15%
Moderate	e. Requires routine use of cane, crutch, or long leg brace (knee-ankle-foot orthosis [KAFO])	20%
	f. Requires routine use of cane or crutch and a short leg brace (AFO)	30%
	g. Requires routine use of two canes or two crutches	40%
Severe	h. Requires routine use of two canes or two crutches and a short leg brace (AFO)	50%
	i. Requires routine use of two canes or two crutches and a long leg brace (KAFO)	60%
	j. Requires routine use of two canes or two crutches and two lower-extremity braces (either AFOs or KAFOs)	70%
	k. Wheelchair dependent	80%

Key Principle – Lower Extremity

Rating Arthritis is done by x-ray finding and depends on the degree of cartilage loss

**page 544
In an individual with a history of direct trauma, a compllaint of patellofemoral pain and crepitation on physical exam, but without joint space narrowing on x-ray a 2% WPI or 5% lower extremity impairment is given.

Lower Extremity – Arthritis

Arthritis joint space may be available in imaging or operative reports.

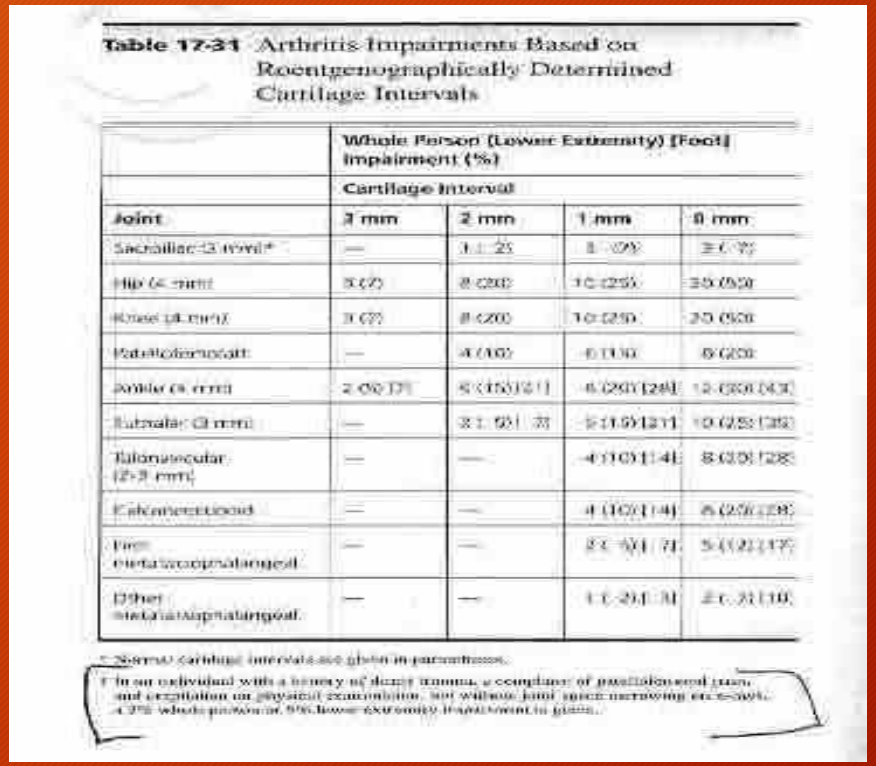


Table 17-31 Arthritis Impairments Based on Roentgenographically Determined Cartilage Intervals

	Whole Person (Lower Extremity) [Foot] Impairment (%)			
	Cartilage Interval			
Joint	3 mm	2 mm	1 mm	0 mm
Sacroiliac (3 mm)*	—	1 [2]	3 [7]	3 [7]
Hip (4 mm)	5 (7)	8 (20)	10 (25)	20 (50)
Knee (4 mm)	3 (7)	8 (20)	10 (25)	20 (50)
Patellofemoral	—	4 (10)	6 (15)	8 (20)
Ankle (3 mm)	2 (5) [7]	5 (15) [21]	6 (20) [28]	12 (30) [43]
Subtalar (3 mm)	—	3 [9] [3]	5 [15] [21]	10 [25] [35]
Talonavicular (2–3 mm)	—	—	4 [10] [14]	8 [20] [28]
Calcaneocuboid	—	—	4 [10] [14]	8 [20] [28]
First metatarsophalangeal	—	—	2 [5] [7]	5 [12] [17]
Other metatarsophalangeal	—	—	1 [2] [3]	2 [5] [7]

*Normal cartilage intervals are given in parentheses.

†In an individual with a history of deep trauma, a complaint of patellofemoral pain, and crepitation on physical examination, but without joint space narrowing on x-ray, 4.3% whole person, 9% lower extremity impairment is given.

RSD/CRPS

LOWER EXTREMITY– refers to chapter 13 CNS table 13 which refers to station and gait.

UPPER EXTREMITY – Contained in UE chapter 16 section 5

RSD/CRPS – Upper Extremity

CRPS I. - No Specific Nerve

1) Loss of Motion
2) Sensory deficit and pain based on the entire extremity - use a %
3) No additional impairment for pinch or grasp

CRPS II – A Specific Nerve

1) Loss of motion
2) Specific motor and sensory deficits
3) No additional impairment for decreased grip or pinch

Upper Extremity – Grip / Pinch

- “Because strength measurements are functional tests influenced by subjective factors that are difficult to control and the Guides for the most part is based on an atomic impairment, the Guides does not assign a large role to such measurements.”

- “It should also be noted that the correlation of strength with performance of activities of daily living is poor and the increase strength is not necessarily equate with increased function.”
- 16.8 page 507

Upper Extremity – Grip / Pinch

"In a rare case, if the examiner believes individuals loss of strength represented in pairing factor that has not been considered adequately by other methods in the Guides, the loss of strength may be rated separately."

"*Otherwise, the impairment ratings based on objective anatomic findings take precedence*. Decreased strength *cannot* be rated in the presence of decreased motion, painful conditions, deformities or absence of parts (e.g. thumb amputation) that prevent effective application of maximal force in the region being evaluated."

16.8a pg 608

Upper Extremity – Grip / Pinch

So – what is the rare case?

1) A severe muscle tear the healed leaving a palpable muscle defect leading to loss of strength. Example- incomplete repair of severe rotator cuff tear with tendon retraction.

2) A burn with significant scarring causing loss of range of motion with incomplete grip in which the loss of strength rating is greater than individual loss of range of motion in wrist and digit. Caution – do not "*double dip*"

The Rare Case

DATE OF INJURY: 1/6/2021

DATE OF BIRTH: 3/31/1969

ALLOWED CONDITIONS: LABRUM TEAR POSTERIOR/SUPERIOR Left Shoulder
CONTUSION OF LEFT BACK WALL OF THORAX
TENDINOPATHY Left Biceps
CAPSULAR ADHESIONS Left Shoulder
SUB AGG OF PRE-EX GLENOHUMERAL JOINT ARTHRITIS Left
UNSPECIFIED SPRAIN OF LEFT SHOULDER JOINT
SUB AGG OF PRE-EX TEAR Left Subscapularis
AXILLARY NEURITIS Left Shoulder

The Rare Case

- **SURGICAL INTERVENTION AND INTERPRETATIONS:**
- Operative report dated 6/16/2021 documents arthroscopic decompression of the axillary nerve or neurolysis of the nerve with arthroscopic excision of the humeral head spur or osteophyte arthroscopic capsular release with manipulation under anesthesia and biceps tenotomy was performed by Andrew Razzano, DO.
-
- **COMPLAINTS:**
- The injured worker complains of the following: pain and limited range of motion left arm. He is right-hand dominant. There is crepitus regularly which is painful.
-

The Rare Case

- **IMPAIRMENT EVALUATION:**
- For the condition(s) **LABRUM TEAR POSTERIOR/SUPERIOR Left Shoulder; TENDINOPATHY Left Biceps; CAPSULAR ADHESIONS Left Shoulder; SUB AGG OF PRE-EX GLENOHUMERAL JOINT ARTHRITIS Left; UNSPECIFIED SPRAIN OF LEFT SHOULDER JOINT; SUB AGG OF PRE-EX TEAR Left Subscapularis; AXILLARY NEURITIS Left Shoulder** (Chapter 16, Page 433 to 521); Impairment of the upper extremity due to abnormal motion:
-
- Flexion to 60 degrees 8% UEI (pg. 476, fig. 16-40)
- Extension to 20 degrees 2% UEI (pg. 476, fig. 16-40)
- Abduction to 60 degrees 6% UEI (pg. 477, fig. 16-43)
- Adduction to 20 degrees 1% UEI (pg. 477, fig. 16-43)
- External Rotation to 30 degrees 1% UEI (pg. 479, fig. 16-46)
- Internal Rotation to 20 degrees 4% UEI (pg. 479, fig. 16-46)
-
- Total impairment for range of motion equals 22% Upper Extremity Impairment
-

The Rare Case

- Impairment of the upper extremity due to shoulder strength deficit:
-
- Strength deficit in flexion-grade 4 — 6% UEI (pg. 510, table 16-35)
- Strength deficit in extension-grade 4 — 2% UEI (pg. 510, table 16-35)
- Strength deficit in abduction-grade 4 — 3% UEI (pg. 510, table 16-35)
- Strength deficit in adduction-grade 4 — 2% UEI (pg. 510, table 16-35)
- Strength deficit in internal rotation-grade 4 — 2% UEI (pg. 510, table 16-35)
- Strength deficit in external rotation-grade 4 — 2% UEI (pg. 510, table 16-35)
-
- Total impairment strength deficit equals Impairment — 17% Upper Extremity
-

The Rare Case

- **LEFT UPPER EXTREMITY:** Utilizing the Combined Values Chart on Page 604 and using Page 439, Table 16-3, the total equals: (22% UEI + 17% UEI) or 35% Upper Extremity Impairment, which correlates to 21% Whole Person Impairment.
-

The Rare Case

- I have been asked to provide an addendum regarding my award for abnormal motion as well as shoulder strength deficit and pain. Per the AMA Guides section 16.8a on page 508, “decreased strength cannot be rated in the presence of decreased motion, painful conditions, deformities, or absence of p arts that prevent effective application of maximal force in the region being evaluated.” I have been advised since my exam findings document both restricted motion and pain, this impairment rating for strength deficit cannot be utilized.

The Rare Case

- Further the AMA Guides 5th edition notes on page 508 “In rare cases, if the examiner believes the individuals loss of strength represents an impairing factor that has not been considered adequately by other methods in the Guides the loss of strength may be rated separately.” In this particular case there is an allowed condition that results in weakness and the surgical intervention while it does result in restricted motion in pain, does result in comparing factor that it’s not considered by other methods. This is one of the “rare cases” where strength is rated despite restricted range of motion and pain.

When to Rate Pain

Impairment ratings in the body organ systems generally make allowance for any accompanying pain
Pg 20, sec 2.5e

Chronic pain is discussed in the pain chapter (chapter 18)

When to Rate Pain

Pg 573

“If the pain appears to have pain related impairment that has increased the burden of his or her condition slightly examiner may increase the percentage . . . by up to 3%”

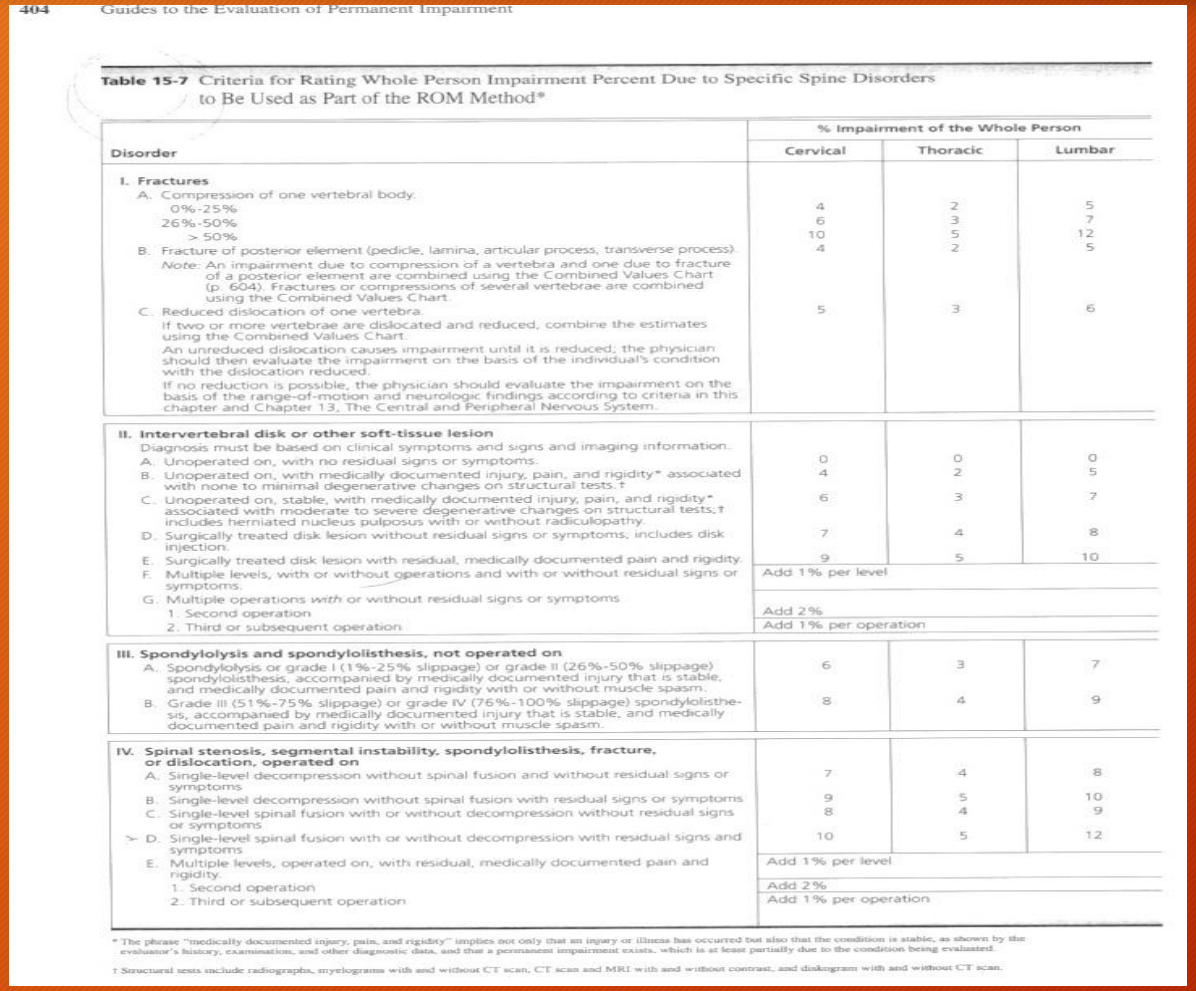
When to Rate Pain

DRE – Spine

Table 15-3 Criteria for Rating Impairment Due to Lumbar Spine Injury

DRE Lumbar Category I 0% Impairment of the Whole Person	DRE Lumbar Category II 5%-8% Impairment of the Whole Person	DRE Lumbar Category III 10%-13% Impairment of the Whole Person	DRE Lumbar Category IV 20%-23% Impairment of the Whole Person	DRE Lumbar Category V 25%-28% Impairment of the Whole Person
No significant clinical findings, no observed muscle guarding or spasm, no documentable neurologic impairment,.no documented alteration in structural integrity, and no other indication of impairment related to injury or illness; no fractures	Clinical history and examination findings are compatible with a specific injury; findings may include significant muscle guarding or spasm observed at the time of the examination, asymmetric loss of range of motion, or nonverifiable radicular complaints, defined as complaints of radicular pain without objective findings; no alteration of the structural integrity and no significant radiculopathy ***or*** individual had a clinically significant radiculopathy and has an imaging study that demonstrates a herniated disk at the level and on the side that would be	Significant signs of radiculopathy, such as dermatomal pain and/or in a dermatomal distribution, sensory loss, loss of relevant reflex(es), loss of muscle strength or measured unilateral atrophy above or below the knee compared to measurements on the contralateral side at the same location; impairment may be verified by electrodiagnostic findings ***or*** history of a herniated disk at the level and on the side that would be expected from objective clinical findings, associated with radiculopathy, or individuals who had surgery	Loss of motion segment integrity defined from flexion and extension radiographs as at least 4.5 mm of translation of one vertebra on another or angular motion greater than 15° at L1-2, L2-3, and L3-4, greater than 20° at L4-5, and greater than 25° at L5-S1 (Figure 15-3); may have complete or near complete loss of motion of a motion segment due to developmental fusion, or successful or unsuccessful attempt at surgical arthrodesis ***or*** fractures: (1) greater than 50% compression of one vertebral body without residual neurologic com-	Meets the criteria of DRE lumbosacral categories III and IV; that is, both radiculopathy and alteration of motion segment integrity are present; significant lower extremity impairment is present as indicated by atrophy or loss of reflex(es), pain, and/or sensory changes within an anatomic distribution (dermatomal), or electromyographic findings as stated in lumbosacral category III and alteration of spine motion segment integrity as defined in lumbosacral category IV ***or*** fractures: (1) greater than 50% compression of one

When to Rate Pain



404 Guides to the Evaluation of Permanent Impairment

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). *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. 604). Fractures or compressions of several vertebrae are combined using the Combined Values Chart.	4	2	5
C. Reduced dislocation of one vertebra. 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.	5	3	6
II. Intervertebral disk or other soft-tissue lesion Diagnosis must be based on clinical symptoms and signs and imaging information.			
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* associated 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			
1. Second operation	Add 2%		
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		
1. Second operation	Add 2%		
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 evaluator's history, examination, and other diagnostic data, and that a permanent impairment exists, which is at least 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 diskogram with and without CT scan.

ROM - Spine

The end?

The Pitch- Velosano.org