IAIABC 2002

Spinal Impairment Guides®

Part 2 of the Supplemental Impairment Rating Guides

Draft

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This is Part 2 of a series of supplemental guides and resources that are being developed by the IAIABC to assist workers' compensation authorities and physicians in the process of rating permanent impairments. Please see Part 1 for a general introduction and for principles of rating.

This part of the supplement deals with spinal injuries and conditions. The user should be aware that the use of Part 2 may depend on or amplify principles introduced in Part 1. This is especially true of issues regarding the rating of pain.

Spine And Pelvis Conditions

Overview

Physicians are to use the following sections to rate patients with residual spinal problems from an industrial accident. With these *IAIABC 2002 Spinal Impairment Guides* (*IAIABC Guides*), the patient is placed in the category that best describes his/her condition. The physician should never combine two impairments for the same spinal areas, except for completely different problems, which would be unusual. For example, if one has an L1 compression fracture and a herniated disc at L4, these would be regarded separately and combined. There will be unusual cases that do not fit these categories and they should be rated in relationship to and utilizing these categories for guidelines.

Before an impairment rating is considered, the patient must be medically stable. This is standard for all impairment ratings. An individual must be at a point of maximum medical improvement (MMI), i.e. the point where all that can be done for them has been done and, materially, they are not expected to improve or worsen further, with or with out treatment.¹

The majority of patients with soft tissue spinal complaints resolve without any permanent residual, therefore, before considering any patient with residual soft tissue, developmental, and degenerative spine complaints for an impairment, their symptoms must have been present for a minimum of six consecutive months.

Apportionment of Soft Tissue Impairment

It is recognized that all impairment ratings are a best estimate. Arriving at apportionment in soft tissue spine impairments has been extremely variable and unreliable. While Schedule VI in this guide, Severity Indexing For Apportionment of Schedule I, may have some shortcomings, many variables have been considered. Schedule VI appears to be a reasonable and logical approach to improve uniformity and reliability.

Each spinal area involved, the cervical, thoracic, and lumbar is considered a one-organ system. All numbers within Schedules I or II are to be added. When other organ systems are involved, such as neurological loss, their values are combined with the spine.

¹ As stated in Part 1, the laws of some jurisdiction do not follow this practice, e.g., Colorado.

Spine Impairment Concepts

Following are some general definitions of key concepts used in this part of the IAIABC Guides.

- If a person has a clinically significant disc protrusion or extrusion (with or without excision), followed by a quiescent stabilized period and then, later, incurs a recurrent disc at the same side and same level treated surgically, this new protruded disc would be rated according to Schedule II and the impairment rating for the initial disc injury/surgery would be apportioned from the current total impairment. Whether it is the same lateralization makes no difference. This is true even though the circumstances that precipitated a recurrence may be minimal. There is no additional impairment for a recurrent disc treated conservatively, unless there is evidence of additional residual radiculopathy. [See Example 15]
- If a person has a disc herniation or excision followed by a stabilization period and then, later, incurs a herniation of a disc at a different level, the additional rating for the second herniation would be according to this schedule. The prior event should be included in the rating and apportioned off so the net result would be the same. [See Examples 15, 16, 24, 25]
- Add-ons for additional levels II-B, II-D and II-F can be applied only one time for the same level.
- If prior problems are not related, they must be deducted (apportioned) if it is required or requested that they be listed.²
- Repeat explorations at the same level, or repeat fusions at the same level, only increase the impairment rating by 2% per surgery. (See II-C)
- If a person had only prior degenerative changes (no ratable conditions on Schedule VI) and later he/she sustains a specific pathological condition, such as a herniated disc, no apportionment to the degeneration is made, as the previous condition was asymptomatic and not ratable.
- Two completely different spinal areas involved should be calculated separately and combined.

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² This apportionment would be relatively unusual in some jurisdictions (e.g. California) if there were no prior impairment rating for the previous condition(s). Notwithstanding, there is no reason it cannot be done on the basis of objective medical evidence.

Spinal Translocation, or Isolated Spinal Segmental Instability

Determinations of Isolated Spinal Segmental Instability (ISSI)

Overview

A major problem that originated in the 3rd, 4th, and now the 5th edition of the *AMA Guides*, is the methodology utilized in determining and awarding for loss of motion segment integrity or isolated spinal segmental instability (ISSI).

The intent of this concept was to rate impairment for individuals who had sustained a significant and uncommon injury causing isolated spinal segmental laxity to the spine. In the absence of a fracture this ligamentous and disc injury results in symptomatic instability at a single spinal level. This is an extremely rare condition and is most often treated with spinal fusion. It is seen with significant history of trauma or severe degenerative disc disease, however it is not seen with low impact motor vehicle accidents. This section is only to be utilized when the stated criteria are met and the patient either cannot undergo or does not desire a spinal fusion.

Caution is given to raters not to rate this impairment as if a single spinal segment is unstable when in fact generalized ligamentous laxity (GLL) is present. The examiner must look at the entire person to identify if GLL is present. This is evident when there are several adjacent disc spaces that all permit "more motion" than one would expect. "Instability" or hyper-mobility at multiple levels is proof of GLL. The diagnosis of GLL is also strongly suggested if the patient has hyper-extensible elbows, hyper-extensible knees, and thumbs with increased radial abduction. Likewise, the range of spinal flexion and extension measured is usually greater than average. This is in contrast to patients with ISSI who almost always have generalized decreased spinal range of motion. If the examiner looks only at a single interspace, patients with GLL might meet the criteria for ISSI. However, the examiner should be able to recognize that GLL is present by looking at the "whole patient," and thus not rate "instability" when it in fact is not present.

Measuring Impairment Related Secondary to ISSI

Technique

This section describes techniques for measuring impairment related secondary to ISSI. ISSI must be documented on spinal flexion and extension static radiographs. ISSI cannot be felt with the examiner's fingers, but rather must be documented with static radiographs. The distance from the "x-ray tube" to the film (SID) must be documented at 72 inches. Translation measurements are based on erect lateral flexion and extension X-rays performed at 72" SID, not 40" SID. Utilizing a 40" SID will result in 15-20% magnification compared to 72" SID, which is the standard practice. The radiographs must be made available to subsequent examiners, so that the inter-rater reliability of the ISSI diagnosis can be confirmed. Spinal fluoroscopy is investigational, and not yet accepted as valid for the purpose of rating impairment due to ISSI.

Translation should be measured as difference of >1.5mm at adjacent levels using a clear plastic ruler or to 1 SD of a digital measuring device. Thus, an abnormal translation measurement in the cervical spine would be 4.0 mm or greater at a level and adjacent levels <3.0 mm to qualify for loss of motion segment integrity based on translation. Angular motion should be measured to the nearest whole degree using a clear plastic goniometer.

The following criteria is to be utilized for determining impairment for ISSI:

Musculoligamentous Soft Tissue Injuries: These results in no evidence of loss of motion segment integrity, but with positive symptoms (spasm, tenderness, loss of ROM, etc).

Rate per Schedule I:

Spinal Isolated Segment Integrity

Musculoligamentous Injuries That Result In Loss Of Motion Segment Integrity:

These are stand-alone ratings that are not treated surgically. They are to be rated according to Schedule A and as listed on SCHEDULE I: SOFT TISSUE, DEVELOPMENTAL and DEGENERATIVE SPINE CONDITIONS.

SCHEDULE A. STAND ALONE RATINGS Determination of Isolated Spinal Segment Integrity ISSI					
Spinal Area	Excessive translation	Excessive Angulation	Impairment		
Cervical	>3.5 mm and >1mm more than adjacent levels	>11 degrees Than the motion at the cervical level above or the level below	7% WP per each		
Thoracic spine	>2.5 mm and >1mm more than adjacent levels		anatomical area. Cervical-Thoracic Lumbar		
Lumbar spine	>4.5 mm and >1mm more than adjacent levels	L1-2, L2-3, and L3-4, > 15 degrees L4-5 >20 degrees L5-S1>25 degrees			

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This section contains a series of schedules that will assist in quantifying rating values for various spinal conditions.

SCHEDULE I. SOFT TISSUE, DEVELOPMENTAL and DEGENERATIVE SPINE CONDITIONS (Whole Person Impairment)

Schedule I requires a minimum of six months duration of symptoms from the time of the injury to the impairment rating and no surgical intervention. The rater is to use only one condition from category 1A through IE, one time.

rating and no surgical intervention. The rater is to use only one condition from category	5. j . j . i	_,
Placement of a patient within one of these categories is dependent primarily on the history and physical findings. The examiner should also consider any "pain behaviors" that may be present. ³	CERVICAL- THORACIC	THORACIC- LUMBAR
I-A. Medically documented minor/mild injury and subjective symptoms persisting for a minimum of six months, and clinical findings that are consistent with spinal pathology. No evidence of acute changes on imaging and none to minimal activity modifications required.	0'	%
I-B. Medically documented moderate injury, subjective symptoms persisting for a minimum of six months, and clinical findings that are consistent with spinal pathology. May have evidence of no to minimal degenerative changes on imaging and may have permanent activity restrictions.	3	%
I-C. Medically documented significant injury, subjective symptoms persisting for a minimum of six months, and clinical findings that are consistent with spinal pathology. May have imaging evidence of moderate to severe degenerative changes. Likely to have permanent activity restrictions.	5	5%
I-D. Medically documented significant injury, subjective symptoms persisting for a minimum of six months, and clinical findings that are consistent with spinal pathology. This would include imaging evidence of objectifiable disc herniation(s) that displaced nervous tissue and was treated without surgery, spondylolisthesis, and segmental instability. Likely to have permanent activity restrictions.	7	%
I-E. Medically documented injury and subjective symptoms persisting for a minimum of six months with a clinical history of a significant injury event and a spondylolisthesis, Grade III or IV.	8	%
ADD-ONS for above conditions in Schedule I. (Whole Pe	rson)	
I-F. Medically documented injury, subjective symptoms persisting for a minimum of six months, and clinical findings which are consistent with continued pain, decreased motion and Imaging evidence of objectifiable disc herniation that displaces nervous tissue and has occurred from a subsequent injury, at another level other than the first and was treated without surgery.	3% ре	er level
I-G. Neurological: Persisting Radicular Neurologic Deficit. If the neurological deficits exceed 3% WP, then calculate the deficits as described from tables 13-23 & 13-24 and combine the new radiculopathy rating, in place of the 3% listed here. [See Radiculopathy Schedule]*	involved r	r each nerve root bined)
I-H. Isolated Spinal Segment Instability Stand alone (as defined in the translocation section.		r each cal Area

Notes:

*This schedule should only be used if no surgery has been performed.

Minor/Mild: ordinary activity, similar to common activities of daily personal living, e.g., picking up and handling light objects (less than 20 lbs), climbing stairs, using a computer for e-mail, or raking a lawn. **Moderate:** straining or taxing activity that would be uncommon for normal personal activities, e.g., lifting 20-50 lbs, highly repetitive motions (hammering, cutting); sharp motions and twisting (falling or jumping 1 or 2 meters); or maintaining unusual or stressful positions (stoop work).

Severe/Significant: unusually taxing activity even for persons in the patient's occupation, e.g., lifting heavy weights (over 50 lbs), being struck; uncontrolled falling over 3 meters; or repeated motions under very heavy loads.

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^{**} Injury events should be classified based on the following categories: Minor/Mild, Moderate, Severe/Significant

³ 5TH edition of the *AMA Guides*

SCHEDULE II. SURGICALLY TREATED SPINE CONDITIONS (Whole Person Permanent Impairment)

For conditions found in Schedules II and IV, no amount of time is required from the injury and the calculation of an impairment. Apportionment for conditions listed below is direct and Table VI's methodology does not apply.

(See Examples at the end of Part 2)

(See Examples at the end of Fart 2)	
	CERVICAL - THORACIC- LUMBAR
II-A. First spinal surgery at one level in a given spinal region, including significant disc abnormality, severe degenerative or posttraumatic changes, spondylolisthesis, segmental instability and spinal stenosis (includes foraminal stenosis). (Assigned one time per patient.)	10% (one time per patient)
ADD-ONS for Schedule II-A. (Whole Person)	
II-B. Medically documented injury with continued pain, decreased motion, and imaging evidence of objectifiable discopathy that displaces nervous tissue and has occurred from the same or subsequent injury at another level other than the first and was treated either conservatively or surgically. This would also include surgery for severe degenerative or posttraumatic changes, spondylolisthesis, segmental instability, and spinal stenosis. (This is applied only one time per level per patient and is not to be applied to levels explored, but not found to require partial discectomy or foraminotomy.)	Add 3% (one time per level per patient)
II-C. Second or subsequent spinal operation in a given spinal region, including herniated discs, severe degenerative or post traumatic changes, spondylolisthesis, segmental instability, and spinal stenosis.	Add 2% per operation
II-D. Spinal Fusions (For the first level fused.)	Add 3% for first level (use one time only)
II-E. Fusions: Additional level(s) (i.e. a fusion that spans 3 segments = 2 levels, or L4-S1 fusion)	Add 2% for each additional level. This is to be used only one time per level
II-F. Neurological: Persisting Radicular Neurologic Deficit * (If, after 6 months,** the neurological deficits exceed 3% WP, then calculate the deficits as described from tables 13-23 & 13-24 and combine the new radiculopathy rating, in place of the 3% listed here. [See Next Schedule]*	Combine 3% for each involved nerve root
II-G. Minor procedures or operations, such as uncomplicated removal of internal fixation devices	0%

Notes:

^{*}Radiculopathy Schedule, next page.

^{**} This may not apply to some jurisdictions, especially when full recovery does not occur within this period.

SCHEDULE III. RADICULOPATHY (Must have a score greater than or equal to 3 to qualify) **Objective Testing Documented Objective Findings at the Time of Rating** Score 2 Significant disc protrusions that displace nerve tissue (which correlates **Imaging** with clinical picture) and/or bony/mechanical nerve root encroachment on the imaging which correlates anatomically with the findings on the neurological examination Muscle Involvement Objective muscle weakness and/or thigh atrophy >2cm compared to uninvolved limb, or leg, arm, or forearm 2 atrophy >1 cm **EMG Changes** Findings of fibrillation potentials in the distribution of a nerve root 2 Objective alteration of sensation (sharp/dull, hot /cold, light touch,) 1 Sensory Involvement consistent with specific dermatomal distribution Reflex Changes Loss of/or diminished deep tendon reflexes, (biceps-triceps-1 brachioradialis-patellar-or ankle jerk) as compared to non-affected side. Tension - Compression Signs Spurling's Sign† or Straight Leg Raise ‡ 1

[†] Spurling's Sign is defined as **pain in the distribution of a cervical nerve root** that is produced by simultaneous neck extension, ipsilateral rotation, and axial compression.

[‡] Straight Leg Raise is defined as **pain in the distribution of a lumbar nerve root** that is produced when the ipsilateral hip is flexed from 10 degrees to 70 degrees, while the knee remains in full extension.

SCHEDULE IV. VERTEBRAL FRACTURES (Whole Person Permanent Impairment)

The impairments listed below are the same with or without surgery. If fracture(s) is healed without any symptoms and without any functional limitations, without functional impairment there is no rating given. If there are no symptoms, no limitations with either a fracture or soft tissue injury, then an award of an impairment is not justified. Rater is to use only the highest ratings from either sections IV-A or IV-B or IV-C. Non-adjacent fractures at distinctly different areas may be rated separately and combined. Accompanying impairments to other organ systems are calculated separately and combined with the fracture impairment.

IV-A: COMPRESSION FRACTURE(S) THAT REMAIN(S) AT MEDICAL STABILITY The impairments listed below are the same with or without surgery.

(Pre-existing compression fractures should be rated only when there has been aggravation by a new injury, shown by objective radiological findings of worsening of the pre-existing fracture. These values should be addressed as a pre-existing factor.) If surgery is performed, the pre-operative compression percentage amount is used for the rating.

	WORST VERTEBRA				
IV-A: % VERTEBRAL COMPRESSION FRACTURE	CERVICAL	THORACIC	LUMBAR		
IV-A-1: 10% or less	3%	2%	3%		
IV-A-2: 11% to 25%	6%	4%	4%		
IV-A-3: 26% to 50%	14%	6%	10%		
IV-A-4: Greater than 50% (Burst Fracture)	19%	9%	(Include T12 with Lumbar) 15%		
IV-A-5: Fusion- If it is required to extend the fusion over more than three vertebral segments, add					
IV-A-6: For multiple fractures listed in IV-A, with more than one level involved					
IV-A-7. Radiculopathy * (If, after 6 months, the neurological deficits exceed 3% WP, then calculate the deficits as described from tables 11 & 12 and combine the new radiculopathy rating, in place of the 3% listed here.					

IV-B: X-RAY EVIDENCE OF VERTEBRAL FRACTURES WITH AXIAL DISLOCATIONS INVOLVING ELEMENTS (REGARDLESS OF DEGREE OF VERTEBRAL COMPRESSION) Including Those Fractures Which Involve the Pedicle, Lamina, Articular Process, Transverse or Spino	
IV-B-1 No Surgery is performed and reduction is to normal or "anatomic" position	6%
IV-B-2: Surgery performed and reduction is to normal or "anatomic" position (Includes fusion)	14%
IV-B-3: No surgery performed and reduction is not to normal or "anatomic" position	17%
IV-B-4: Surgery performed with significant persisting bony deformity (includes fusion)	20%
IV-B-5: Fusion- If it is required to extend the fusion over more than three vertebral segments, add	5% one time
IV-B-6: For multiple fractures listed in IV-B, with more than two vertebrae involved	Add 3% one time
IV-B-7: Persisting Neurologic Deficit * (If, after 6 months, the neurological deficits exceed 3% WP, then calculate the deficits as described from Tables 11 & 12 and combine the new radiculopathy rating, in place of the prior 3%	Combine 3% one time

^{*}See Radiculopathy Schedule

SCHEDULE IV. VERTEBRAL FRACTURES (Whole Person Permanent Impairment)

The impairments listed below are the same with or without surgery. If a fracture(s) is healed without any symptoms and without any functional limitations, without functional impairment there is no rating given. If there are no symptoms, no limitations with either a fracture or soft tissue injury, then an award of an impairment is not justified. Rater is to use only the highest ratings from either sections IV-A or IV-B or IV-C. Non-adjacent fractures at distinctly different areas may be rated separately and combined. Accompanying impairments to other organ systems are calculated separately and combined with the fracture impairment.

IV-C: OTHER FRACTURES NOT LISTED ABOVE	
The below listed impairments are the same with or without surgery.	
IV-C-1. Fracture of one or more transverse processes or spinous processes healed without significant displacement or symptoms.	0%
IV-C- 2. Fracture of one or more transverse processes or spinous processes fractures with or without displacement and persistent symptoms remaining>6 months.	5%
IV-C-3. Fracture of posterior elements, healed without displacement or symptoms.	0%
IV-C-4. Fracture of Posterior element, healed with or without displacement, but requiring spinal surgical intervention.	10%
IV-C-5. Fracture of posterior elements healed with or without displacement requiring surgical fusion.	Add 3%
IV-C-6. Fusions over more than three segments add: (This is not to be used in conjunction with IV-C-6.)	5% one time
IV-C-7. Persisting Neurologic Deficit * (If, after 6 months, the neurological deficits exceed 3% WP, then calculate the deficits as described from tables 13-23 & 13-24 and combine the new radiculopathy rating, in place of the 3% listed here.	Combine 3% one time

^{*}See Radiculopathy Schedule

SCHEDULE V. THE PELVIS (Whole Person Permanent Impairment)** Healed Fracture without displacement or residual symptoms...0% Healed fracture(s) with displacement, deformity, and residuals symptoms(s) involving: Healed fracture with displacement and without residual a. Single ramus......2% symptoms(s) involving: b. Rami, bilateral5% c. Ilium2% c. Ilium......0% d. Ischium, displaced 1 inch or more10% d. Ischium......0% e. Symphysis pubis, displaced or separated15% e. Symphysis pubis, without separation......0% f. Sacrum, into sacroiliac joint......10% g. Coccyx, non-union or excision...... 5% f. Sacrum......5% h. Coccyx, displacement......3%* g. Coccyx.......0% i. Fracture into acetabulum......Evaluate according to hip

Notes: Neurologic symptoms would be calculated and combined

^{*}Residual problem of persistent sitting intolerance <20 min

^{**}Loss of bladder control, bowel control, or sexual functioning should be rated and combined with the pelvic fracture using the 5th edition of the *AMA Guides* criteria.

SCHEDULE VI. SEVERITY INDEXING FOR APPORTIONMENT OF SCHEDULE I

(This applies only to the Impairment Process/Disability Process.)

Schedule I requires a minimum of six months duration of symptoms, from the time of the injury and the impairment rating.

Score

	0	1pt.	2pts.
VI-A. Time lost from work in the last 12 months because of symptoms in the same spinal region	0	1-3 days	>3 days
VI- B. Number of prior episodes in the same spinal region	0	1-3	>3
VI-C. Time elapsed since last episode/injury	>3 years	1-3 Years	<1year
VI- D. Prior permanent work restrictions because of problems in the same spinal region	None	Temporary	Permanent
VI-E. Prior objective testing to the same spinal region: EMG-NCV, X-ray, MRI-CT, Bone Scan	0	If any performed prior to 2 years	If any performed within the last 2 years
VI-F. Prior to latest claim, what ongoing medical, chiropractic visits, physical therapy visits were received for an injury to the same spinal region	0 -2 times in last 3 yrs	3-6 times in last 3 yrs	>6 in last 3 yrs
VI-G. Spondylolysis with Spondylolisthesis		<25% slip	>25% Slip
VI-H. Radiculopathy (As objectified by Radiculopathy Schedule)	No History		Prior History

Formula for apportionment using points generated in Schedule VI:

1-2 pts. = no apportionment

3pts. = 10% may be apportioned off as a prior ratable condition

4pts. = 20% may be apportioned off as a prior ratable condition

5pts. = 30% may be apportioned off as a prior ratable condition

6pts. = 40% may be apportioned off as a prior ratable condition

7pts. = 50% may be apportioned off as a prior ratable condition

8pts. = 70% may be apportioned off as a prior ratable condition

9pts. = 90% may be apportioned off as a prior ratable condition

>10 pts. = 100% may be apportioned off as a prior ratable condition

Summary of Basic Principles of Apportionment

- Apportionment applies only to permanent impairment.
- Impairment that directly results from the current injury being evaluated is not apportioned.
- Ratable impairment that existed prior to the injury is subject to apportionment.
- In all cases, the apportionment may not be speculative.

Actual factors of prior impairments are to be discussed with sufficient reason in support of the apportionment.

Schedule VI Notes

It is recognized that all impairments are best estimates. Arriving at apportionment for spine impairments in the past has been extremely variable and unreliable. While Schedule VI (Severity Indexing for apportionment of Schedule I) may have some shortcomings, many variables have been considered and it appears to be a reasonable and logical approach to improve uniformity and reliability.

Schedules for Calculating Neurological Loss

The methodology and schedules to be used in the calculation of neurological loss is contained in the Spine section of the 5th edition of the *AMA Guides*, page 424.

Spine with Associated Severe Neurological Injuries

For consistency in evaluating spinal impairments with associated severe neurological involvement, the following should be used whenever possible, eliminating the need for multiple system evaluations. (These are best applied in more isolated circumstances or for other conditions.) They are included by identification or implications in the categories as listed below. For spinal conditions with related impairments that clearly fall within the following classifications, use the 5th edition of the *AMA Guides*, "Rating Corticospinal Tract Damage" (page 395) and the related text in the *IAIABC Guides*. The "Nerve Root and/or Spinal Cord Model," found in the 5th edition of the *AMA Guides* Spinal ROM section (page 423) is not to be used.

Schedule Forms

The following schedule forms may be of assistance to the rating physician. It is recommended that the following applicable form(s), along with supporting documentation, be submitted for spine impairments ratings:

- Schedule I Form for Computing Spinal Impairments
- Schedule II Form for Computing Surgical Spinal Impairments

SCHEDULE I FORM FOR COMPUTING SPINAL IMPAIRMENTS Use this schedule if no surgery has been performed. Patient's Name: Date: Placement of a patient within one of these categories is dependent primarily on the history CERVICAL-THORACICand physical findings. The examiner should also consider any "pain behaviors" that may be THORACIC LUMBAR present. I-A. Medically documented injury and subjective symptoms persisting for a 0% minimum of six months with a clinical history of a relative minor injury event. No evidence of acute changes on imaging and none to minimal activity modifications required. I-B. Medically documented injury and subjective symptoms persisting for a minimum of six months with a clinical history of a moderate injury event. May have 3% evidence of minor degenerative changes on imaging and may have permanent activity restrictions. I-C. Medically documented injury and subjective symptoms persisting for a minimum of six months with a clinical history of a significant injury event. May 5% have imaging evidence of moderate to severe degenerative changes. Should have permanent activity restrictions. I-D. Medically documented injury and subjective symptoms persisting for a minimum of six months with a clinical history of a significant injury event. This 7% would include imaging evidence of objectifiable disc herniation(s) that displaced nervous tissue treated without surgery, spondylolisthesis and segmental instability. Should have permanent activity restrictions. I-E. Medically documented injury and subjective symptoms persisting for a 8% minimum of six months with a clinical history of a significant injury event and a spondylolisthesis. I-H. Isolated Spinal Segment Instability: Stand alone (as defined in the 5% translocation section. ADD-ONS for conditions in Schedule I-D. or 1-E. (Whole Person) I-F. Medically documented injury and subjective symptoms persisting for a 3% minimum of six months with continued pain, decreased motion, and imaging evidence of objectifiable disc herniation that displaces nervous tissue and has occurred from a subsequent injury, at another level other than the first and was treated without surgery. Add Impairment (Total Amount for Spine): I-G. Persisting Radicular Neurologic Deficit * (If, after 6 months, the neurological 3% deficits exceed 3% WP, then calculate the deficits as described from tables 11 & Com 12 and combine the new radiculopathy rating, in place of the 3% listed here. bined **Total Impairment Value Without Apportionment: Apportionment: Final Impairment Related to the Last Event:** Signature and Title of Physician doing Rating:

^{*} See Radiculopathy Schedule

SCHEDULE II FORM FOR COMPUTING SURGICAL SI Use for surgically treated spine conditi		IRMENTS		
Patient's Name:	Date:			
Injury Events		Initial Event	Second Event	Third Event
II-A. First spinal surgery at one level in a given spinal region, including herniated discs, severe degenerative or post traumatic changes, spondylolisthesis, segmental instability and spinal stenosis (includes foraminal stenosis). (Assigned one time per patient.)	10% one time per patient			
ADD-ONS for Schedule II-A. (Whole P	erson)			
II-B. Medically documented injury, with continued pain and decreased motion and imaging evidence of objectifiable disc herniation that displaces nervous tissue and has occurred from the same or subsequent injury, at another level other than the first and was treated either conservatively or surgically. This would also include surgery for severe degenerative or posttraumatic changes, spondylolisthesis, segmental instability, and spinal stenosis. (This is applied only one time per level per patient and is not to be applied to levels explored, but not found to require partial discectomy or foraminotomy.)	Add 3% (one time per level per patient)			
II-C. Second or subsequent spinal operation in a given spinal region, including herniated discs, severe degenerative or post traumatic changes, foraminal stenosis, spondylolisthesis, segmental instability, and spinal stenosis.	Add 2% per operation			
II-D. Spinal Fusions (For the first level fused)(use one time only)	3%			
II-E. Fusions: Additional level(s)/each additional level. This is to be used only one time per level.	2%			
II-G. Minor procedures or operations, such as hardware removal.	0%			
Add Impairment (Total Amount t	for Spine):			
II-F. Persisting Radicular Neurologic Deficit * (If, after 6 months, the neurological deficits exceed 3% WP, then calculate the deficits as described from tables 11 & 12 and combine the new radiculopathy rating, in place of the 3% listed here.	3% Combined			
Total Impairment Value Without Appor	rtionment:			
Apportionment:				
Final Impairment Related to the Last Event:				
Signature and Title of Physician doing Rating:				

^{*}See Radiculopathy Schedule

Examples of Spine Impairments

Experiences of the authors have shown that a series of examples (clinical scenarios) can greatly assist the practitioner in making ratings. Thus we have included 26 specific examples of spine injuries and rating methods.

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Example 1: Mechanical Back Pain

A 34 year-old construction worker sustained a relatively minor low back event/injury six months ago after he lifted a 10-foot 2 x 4 off the ground. He had a course of physical therapy, medications, and chiropractic physician visits. Although he has continued to work, he still has subjective complaints of intermittent low back pain and over-the-counter medications are occasionally used. He has been declared medically stable and released to full duty. X-rays are normal.

EXAMPLE 1 SCHEDULE I FORM FOR COMPUTING SPINAL IMPAIRMENTS (Whole Person)	THORACIC- LUMBAR
I-A. Medically documented injury and subjective symptoms persisting for a minimum of six months with a clinical history of a relative minor injury event. No evidence of acute changes on imaging and none to minimal activity modifications required.	0%
Final Impairment Related to the Last Event:	0%

Example 2: Mechanical Back Pain

A 23 year-old construction worker had a low-back injury claim six months ago following a slip on the ice wherein he landed on his buttocks. He had no known medical history of prior back pain. His x-rays have been read as normal and he has undergone a course of physical therapy and medications. Although he has continued to work, he still complains of intermittent low-back pain with referred pain into the back of the legs that does not go into his feet. These symptoms have been consistent without any pain behaviors noted. He has primarily used over-the-counter medications, but occasionally requires a prescription anti-inflammatory. Occasionally he uses an L.S. brace to work. He has been declared medically stable and released to full duty.

EXAMPLE 2 SCHEDULE I FORM FOR COMPUTING SPINAL IMPAIRMENTS	
I-B. Medically documented injury and subjective symptoms persisting for a minimum of six months with a clinical history of a moderate injury event. May have evidence of minor/mild degenerative changes on imaging and may have permanent activity restrictions.	
Add Impairments:	3%
Apportionment (The amount apportioned from Schedule I must agree with Schedules I & VI):	
Impairment Related to the Last Event:	3%

Example 3: Mechanical Back Pain

A 44 year-old female has a history of a low-back injury claim from when, six months ago, a chair collapsed under her at work and she landed on her buttocks. She had no known history of prior back trouble. She has had a course of physical therapy and medications. Although she has continued to work, she still complains of intermittent low back pain with referred pain into the back of the legs that does not go into her feet. She has missed some time at work and now mostly uses a prescription anti-inflammatory and occasionally an L.S. brace to work. Her physical examination does not demonstrate any neurological deficit, although she does have some "give-away" weakness. She has been declared medically stable and with a permanent 30-lb occasional lifting weight-restriction based on pain tolerance. X-rays show minimal disc space narrowing.

EXAMPLE 3 SCHEDULE I FORM FOR COMPUTING SPINAL IMPAIRMENTS	THORACIC- LUMBAR
I-C. Medically documented injury and subjective symptoms persisting for a minimum of six months with a clinical history of a significant injury event. May have imaging evidence of moderate to severe degenerative changes. Should have permanent activity restrictions.	
Add Impairments:	5%
Apportionment (The amount apportioned from Schedule I must agree with Schedules I & VI):	
Impairment Related to the Last Event:	5%

Example 4: Mechanical Back Pain With Referred Pain

Six months ago, a 48 year-old male had a low-back injury claim after he lifted an 80-lb concrete panel. He has had a course of physical therapy, medications, and chiropractic physician's care. Although he has continued to work, he still complains of intermittent low back pain with referred pain into the back of the legs, which does go into the lateral aspect of his right leg. He does not have reflex changes, weakness, or dermatomal sensory changes. He now occasionally misses some time from work and mostly uses a prescription anti-inflammatory and an L.S. brace at work. He has been declared medically stable and with a permanent 50-lb occasional weight restriction, based on pain tolerance. X-rays show early degenerative disc disease, with a CAT scan showing a disc bulge at L4-L5 touching, but not displacing the nerve roots. He has no prior significant history of prior back injury and exhibits no pain behaviors.

EXAMPLE 4 SCHEDULE I FORM FOR COMPUTING SPINAL IMPAIRMENTS (Whole Person Permanent Impairment)	THORACIC -LUMBAR
I-C. Medically documented injury and subjective symptoms persisting for a minimum of six months with a clinical history of a significant injury event. May have imaging evidence of moderate to severe degenerative changes. Should have permanent activity restrictions.	5%
Add Impairments:	5%
Apportionment (The amount apportioned from Schedule I must agree with Schedules I & VI):	
Impairment Related to the Last Event:	5%

Discussion: Although this patient has subjective referred pain into the lateral aspect of his right leg, this alone does not qualify as a radiculopathy.

Example 5: Mechanical Back Pain With Referred Pain And With Prior History

A 48 year-old male injured his back six months ago lifting an 80-lb concrete panel. He has had a course of physical therapy, medications, and chiropractic physician's care. Although he has continued to work, he still complains of intermittent low-back pain with referred pain into the back of the legs, which does go into the lateral aspect of his right foot. He does not have reflex changes, weakness, dermatomal sensory changes, or signs of pain behavior. He occasionally misses work. He has been declared medically stable with a permanent 50-lb occasional weight restriction, based on pain tolerance. X-rays show early degenerative disc disease, with a CAT scan showing a disc bulge at L4-L5 touching, but not displacing the nerve roots. He has had two prior episodes of back pain, one 4 years ago in which he had no lost time and a second episode 1 year ago, with lost time of four days. He has had ten chiropractic physician visits for the episode 1 year ago, with a CT scan completed then. Prior to his latest injury, he had formally been given no permanent work restrictions.

SCHEDULE VI. SEVERITY INDEXING FOR APPORTIONMENT OF SCHEDULE I (This applies only to the Impairment Process.)

If the history was significant enough to automatically qualify for a rating in these *IAIABC Guides*, apportion directly. See Part 1 of this guide for methodological notes on apportionment.

Score	0	1pt.	2pts.	
VI-A. Time Lost from Work in the Last 12 Months Because of Symptoms in the Same Spinal Region	0	1-3 days	>3 days	
VI- B. Number of Prior Episodes in the Same Spinal Region	0	1-3	>3	
VI-C. Time since Last Episode/Injury	0	1-3 Years	<1year	
VI- D. Prior Permanent Work Restrictions Because of Problems in the Same Spinal Region	None	Temporary	Permanent	
VI-E. Prior Objective Testing to the Same Spinal Region: EMG-NCV, X-ray, MRI-CT, Bone Scan	0	If ever taken	If taken within the last 2 years	
VI-F. Prior to latest claim, what ongoing Medical, Chiropractic Visits, Physical Therapy Visits were received for an injury to the Same Spinal Region	0 -2 times in last 3 yrs	3-6 times in last 3 yrs	>6 in last 3 yrs	
VI-G. Spondylolysis with Spondylolisthesis		<25% slip	>25% Slip	
VI-H. Radiculopathy (As objectified by Radiculopathy Schedule)			Prior History	

1-2 pts. = no apportionment

3pts. = 10% may be apportioned off as a prior ratable condition

4pts. = 20% may be apportioned off as a prior ratable condition

5pts. = 30% may be apportioned off as a prior ratable condition

6pts. = 40% may be apportioned off as a prior ratable condition

7pts. = 50% may be apportioned off as a prior ratable condition

8pts. = 70% may be apportioned off as a prior ratable condition

9pts. = 90% may be apportioned off as a prior ratable condition

10 pts. = 100% may be apportioned off as a prior ratable condition

EXAMPLE 5 SCHEDULE I FORM FOR COMPUTING SPINAL IMPAIRMENTS (Whole Person Permanent Impairment)	THORACIC- LUMBAR
I-C. Medically documented injury and subjective symptoms persisting for a minimum of six months with a clinical history of a significant injury event. May have imaging evidence of moderate to severe degenerative changes. Should have permanent activity restrictions.	5%
Add Impairments:	5%
Less Apportionment= 6 pts from table V = 40%, 40% of 5% (I-C.) = 2% WP	- 2%
Impairment Related to the Last Event:	3%

Example 6: Cervical-Thoracic Pain Without Radiculopathy

Six months ago while at work, a 28 year-old male was sitting in the driver's seat of the vehicle he was driving, waiting at a red light, when he was struck from behind by a pickup truck traveling approximately 20 miles per hour. His diagnostic workup included plain x-rays and a MRI, which were found to be within normal limits. He has been treated with chiropractic manipulation, physical therapy, anti-inflammatories, and muscle relaxers. Although these treatments have helped, he still complains of neck pain and mid-scapular pain, with associated headaches. He still uses occasional medication and he has had to permanently modify his occupation to avoid extensive overhead work. His physical examinations have not disclosed any overt pain behaviors and he has had no prior history of cervical or thoracic injuries.

EXAMPLE 6 SCHEDULE I FORM FOR COMPUTING SPINAL IMPAIRMENTS (Whole Person Permanent Impairment)	CERVICAL- THORACIC
I-C. Medically documented injury and subjective symptoms persisting for a minimum of six months with a clinical history of a significant injury event. May have imaging evidence of moderate to severe degenerative changes. Should have permanent activity restrictions.	5%
Add Impairments:	5%
Apportionment (The amount apportioned from Schedule I must agree with Schedules I & VI):	
Impairment Related to the Last Event:	5%

Discussion: Although he continues to have pain in both the cervical and thoracic area, these are both considered under I-C and awarded 5% Whole Person (WP).

Example 7: Cervical-Thoracic Pain Without Radiculopathy And With Clinical Manifestations Of Overt Pain Behaviors

Six months ago while at work, a 32 year-old female was sitting in the driver's seat, waiting at a red light, when she was struck from behind by a pickup truck traveling approximately 5 miles per hour, incurring no damage to either vehicle. She has continuing complaints of neck and thoracic pain. Her diagnostic workup has included plain x-rays and a MRI, which were found to be within normal limits. She has been treated with chiropractic manipulation, physical therapy, anti-inflammatories, and muscle relaxers. Although these treatments have helped, she still complains of neck and mid-scapular pain, with associated headaches. She uses occasional medication and has had permanent activity restrictions to avoid extensive overhead work, based on pain tolerance. Her physical examinations have continued to demonstrate pain behavior with both verbal and non-verbal communication of distress and suffering, including embellishing her medical history, exaggerated pain drawings, and providing responses on the physical examination inconsistent with known physiology. She denies any prior trauma or symptoms to this area.

EXAMPLE 7 SCHEDULE I FORM FOR COMPUTING SPINAL IMPAIRMENTS	CERVICAL- THORACIC
I-B. Medically documented injury and subjective symptoms persisting for a minimum of six months with a clinical history of a moderate injury event. May have evidence of minor/mild degenerative changes on imaging and may have permanent activity restrictions.	
Add Impairments:	3%
Apportionment (The amount apportioned from Schedule I must agree with Schedules I & VI):	
Impairment Related to the Last Event:	3%

Discussion: Residual symptoms in both the cervical and thoracic areas are both considered under I-B and awarded 3% WP. For ratings that fall between categories, pain behaviors may be considered for placement in a lesser impairment percentage category.

Example 8: Low-Back Pain With Radiculopathy (No Surgery)

A 53 year-old female dockworker injured her lower back while lifting an 80-lb box eight months ago. She initially had pain into her right leg down to the ball of her foot, with associated numbness, tingling, and weakness. She underwent a MRI, which demonstrated a L5-S1 HNP with right S1 nerve root displacement. Treatment has included an epidural steroid injection, physical therapy, medications, and bracing. She now has been declared medically stable with persisting back pain and occasional radiation pain symptoms down to the ball of her foot. She has been released for work with permanent restrictions of occasional lifts of 40 lbs. Her physical exam continues to show an absent right ankle jerk, straight leg lift at 40 degrees, and leg atrophy of 2 cm comparing right to left. She has no significant history of back problems.

EXAMPLE 8 SCHEDULE I FORM FOR COMPUTING SPINAL IMPAIRMENTS		THORACIC- LUMBAR
I-D. Medically documented injury and subjective symptoms persisting for a minimum of six months with a clinical history of a significant injury event. This would include imaging evidence of objectifiable disc herniation(s) that displaced nervous tissue treated without surgery, spondylolisthesis, and segmental instability. Should have permanent activity restrictions.	7%	7%
Add Impairment: (Total Amount for Spine)		7%
I-G. Persisting Radicular Neurologic Deficit * (If, after 6 months, the neurological deficits exceed 3% WP, then calculate the deficits as described from tables 11 & 12 and combine the new radiculopathy rating in place of the 3% listed here)		3%
Total Impairment Value Without Apportionment:		10%
Apportionment (The amount apportioned from Schedule I must agree with Schedules I & VI):		
Final Impairment Related to the Last Event:		10%

^{*}See Radiculopathy Schedule

Example 9: Low-Back Pain (Post-Surgery)

A 48 year-old female dockworker injured her low back while lifting an 80-lb box nine months ago. She initially had pain into her right leg down to the ball of her foot, with associated numbness, tingling, and weakness. She underwent a MRI, which demonstrated a L5-S1 HNP with a right S1 nerve root displacement. Treatment included an epidural, physical therapy, medications, bracing, and eventually an L5-S1 discectomy four months ago. She now has been declared medically stable and released for work with restrictions as tolerated. Her physical exam has essentially returned to normal except for her Achilles reflex, with complaints of occasional back and leg pain, stopping at the knee. She has had no significant history of prior back pain.

EXAMPLE 9 SCHEDULE II. USE FOR SURGICALLY TREATED SPINE CONDITIONS		Initial Event
II-A. First spinal surgery at one level in a given spinal region, including herniated discs, severe degenerative or post traumatic changes, spondylolisthesis, segmental instability, and spinal stenosis. (Assigned one time per patient.)	10% one time per patient	10%
Add	Impairments:	10%
Apportionment:		
Final Impairment Related to th	e Last Event:	10%

Example 10: Low-Back Pain With Radiculopathy (Post-Surgery)

A 35 year-old female warehouse worker injured her low back while lifting a 50-lb box eight months ago. She initially had pain into her right leg down to the ball of her foot, with associated numbness, tingling, and weakness. She underwent a MRI, which demonstrated a L5-S1 HNP with a right S1 nerve root displacement. Treatment included an epidural steroid injection, physical therapy, medications, bracing, and surgical discectomy at L5-S1. She now has been declared medically stable and released for work with permanent restrictions permitting occasional lifts of 40 lbs. Her physical exam continues to show an absent right ankle jerk. Straight leg lift at 30 degrees produces radicular leg pain in a S1 pattern. She has leg atrophy of 2 cm comparing right to left. She has had no significant history of prior back pain.

EXAMPLE 10 SCHEDULE II. USE FOR SURGICALLY TREATED SPINE CONDITIONS		Initial Event
II-A. First spinal surgery at one level in a given spinal region, including herniated discs, severe degenerative or post traumatic changes, spondylolisthesis, segmental instability and spinal stenosis. (Assigned one time per patient.)	10% one time per patient	10%
Add Impairment (Total Amount for Spine):		10%
II-F. Persisting Radicular Neurologic Deficit * (If, after 6 months, the neurological deficits exceed 3% WP, then calculate the deficits as described from tables 11 & 12 and combine the new radiculopathy rating in place of the 3% listed here.)	3% Combined	3%
Add Impairments:		13%
Apportionment:		0
Final Impairment Related to the Last Event:		13%

^{*}See Radiculopathy Schedule

Example 11: Low Back Pain With Foot Drop (Post-Surgery)

A 35 year-old female warehouse worker injured her low back while lifting a 50-lb box. She initially had pain into her right leg down to the lateral aspect of her leg, with associated numbness, tingling, and the inability to dorsiflex her foot against gravity. She had a MRI, which demonstrated a L4-L5 HNP with right L5 nerve root displacement. Treatment has included an epidural steroid injection, physical therapy, medications, bracing, and surgical discectomy at L4-L5. She was declared medically stable and released for work with permanent restrictions permitting occasional lifts of 20 lbs. Her physical exam continues to demonstrate the inability to dorsiflex her right foot through a full range of motion against gravity. She needs to wear a dorsiflexion assist brace. She has leg atrophy of 2 cm comparing right to left. Her pain is minimal, but she does have decreased light touch perception and decreased sharp-dull recognition in the L5 distribution. She has no significant history of prior back pain and is now almost one year post-surgery.

SENSORY DEFICITS* CLASSIFICATION FOR DETERMINING IMPAIRMENT DUE TO NERVE ROOT DISORDERS (Severity Multiplier)			
Class	Description of sensory loss or pain	% Sensory	
5	No loss of sensibility, abnormal sensation, or pain	0	
4	Diminished light touch with or without minimal abnormal sensations or pain, forgotten during activity	1-25	
3	Diminished light touch with some abnormal sensations or pain, interfering with activity	26-60	
2	Decreased protective sensation (sharp dull discrimination) with abnormal sensations or moderate pain that may prevent some activity	61-80	
1	Deep pain present, but no protective sensation (no sharp dull discrimination), severe pain or that prevents most activity	81-99	
0	Absent sensibility, abnormal sensations or severe pain that prevents all activity	100	

^{*} Adapted from the 5th edition of the *AMA Guides*, Table 15-15, page 424

Sensory component, = 50% of nerve multiplied by the L5 Sensory Nerve Root value, 5%, (see page 424, Table 15-15) = 3% Lower Extremity

MOTOR DEFICITS* CLASSIFICATION FOR DETERMINING IMPAIRMENT DUE TO LOSS OF FUNCTION RESULTING FROM NERVE OR MECHANICAL DISORDERS (Upper or Lower Extremity Value)		
Class	Description of Muscle Function	% Motor Deficit
5	Active movement against gravity with full resistance	0
4	Active movement against gravity with some resistance	1 - 25
3	Active movement against gravity only without resistance	26 - 50
2	Active movement with gravity eliminated	51 - 75
1	Slight contraction and no movement	76 - 99
0	No contractions	100

^{*} Adapted from the 5th edition of the *AMA Guides*, Table 15-16, page 424

Motor Deficit, = 70% of nerve value multiplied by the L5 (see page 424, Table 15-16) Motor nerve value 37%, =26% Lower Extremity 26% for the motor value combined with 3% for the sensory value = 28% Lower Extremity = 28% Lower Extremity = 40% WP)

EXAMPLE 11 SCHEDULE II. USE FOR SURGICALLY TREATED SPINE CONDITIONS		
II-A. First spinal surgery at one level in a given spinal region, including herniated discs, severe degenerative or post traumatic changes, spondylolisthesis, segmental instability, and spinal stenosis. (Assigned one time per patient.)		10%
Add Impairment (Total Amount for Spine):		
II-F. Persisting Radicular Neurologic Deficit * (If, after 6 months, the neurological deficits exceed 3% WP, then calculate the deficits as described from tables 11 & 12 and combine the new radiculopathy rating, in place of the 3% listed here.)		
Final Impairment Rela	ated to the Last Event:	20%

^{*} See Radiculopathy Schedule

Example 12: Spondylolisthesis Without History

A 45 year-old male slipped and fell four feet, landing flat on his back six months ago. An x-ray demonstrated an L5 spondylolysis with a grade one spondylolisthesis. He was treated with a course of physical therapy and medication, and uses a brace occasionally. He continues to have back pain and occasional leg pain to the back of his legs, but no reflex changes, atrophy, or dermatomal changes. He has been released to work with permanent restrictions not to lift over 40 lbs, based on pain tolerance. He has had no significant history of back pain.

EXAMPLE 12 SCHEDULE I FORM FOR COMPUTING SPINAL IMPAIRMENTS		THORACIC- LUMBAR
I-D. Medically documented injury and subjective symptoms persisting for a minimum of six months with a clinical history of a significant injury event. This would include imaging evidence of objectifiable disc herniation(s) that displaced nervous tissue treated without surgery, spondylolisthesis, and segmental instability. Should have permanent activity restrictions.	7%	7%
Add Im	pairments:	7%
Apportionment:		0%
Impairment Related to the L	ast Event:	7%

No apportionment is calculated, in that prior to his fall, he would not have qualified for an impairment rating.

Example 13: Spondylolisthesis With Radiculopathy And Without Prior History

A 45 year-old male slipped and fell four feet, landing flat on his back seven months ago. An x-ray demonstrated a L5 spondylolysis with a grade one spondylolisthesis and L5 bilateral foraminal narrowing. He was treated with a course of physical therapy and medication, and uses a brace occasionally. He continues to have back pain and moderate right leg pain to the outside of his foot. His physical exam demonstrates that a straight leg raise at 30 degrees causes dermatomal leg pain. There is sensory loss in the L5 distribution. An EMG demonstrated fibrillations, consistent with a right L5 radiculopathy. A CAT scan demonstrated bilateral pars defects at L5, old in nature with severe foraminal stenosis. He has declined surgery and has been released to work with a permanent restriction not to lift over 30 lbs. He uses occasional medications and bracing. Prior to his industrial accident, he had no history of back pain or leg pain.

EXAMPLE 13 SCHEDULE I FORM FOR COMPUTING SPINAL IMPAIRMENTS		THORACIC- LUMBAR
I-D. Medically documented injury and subjective symptoms persisting for a minimum of six months with a clinical history of a significant injury event. This would include imaging evidence of objectifiable disc herniation(s) that displaced nervous tissue treated without surgery, spondylolisthesis, and segmental instability. Should have permanent activity restrictions.	7%	7%
Add Impairment (Total Amount for Spine):		7%
I-G. Persistent Radicular Neurologic Deficit* (If, after 6 months, the neurological deficits exceed 3% WP, then calculate the deficits as described from tables 11 & 12 and combine the new radiculopathy rating, in place of the 3% listed here.)	3% Combined	3%
Total Impairment Value Without Apportionment:	1	0%

^{*}See Radiculopathy Schedule

No apportionment is calculated, in that prior to his fall, he would not have qualified for an impairment rating.

Example 14: Spondylolisthesis With Radiculopathy And With Prior History

A 45 year-old male slipped and fell four feet, landing flat on his back seven months ago. An X-ray demonstrated an L5 spondylolysis with a grade one spondylolisthesis and L5 bilateral foraminal narrowing. He was treated with a course of physical therapy and medication, and uses a brace occasionally. He continues to have back pain and moderate right leg pain radiating to the outside of his leg and to the top of his foot. His physical exam demonstrates that straight leg raising at 30 degrees on the right causes right leg dermatomal pain. He has sensory loss in the L5 distribution. An EMG demonstrated fibrillations, consistent with a right L5 radiculopathy. A CAT scan demonstrated a bilateral pars defect at right L5, old in nature. He has been released to work with permanent restrictions not to lift over 50 lbs, based on pain tolerance. He uses occasional medications and bracing. He has a prior history of back pain from when he hurt himself taking out the garbage 11 months ago. With that episode he had x-rays taken, missed three days of work, saw his personal physician two times, and had a very similar positive EMG. Between his first and second episode, he continued to use a brace and NSAIDs intermittently.

SCHEDULE VI. SEVERITY INDEXING FOR APPORTIONMENT OF SCHEDULE I

(This applies only to the Impairment Process/Disability Process)

If the history was significant enough to automatically qualify for a rating in these IAIABC Guides, apportion directly.

in the history was significant enough to automatically quality for a rating in these initiable duries, appointed unestry				
Score	0	1pt.	2pts.	
VI-A. Time lost from work in the last 12 months because of symptoms in the same spinal region	0	1-3 days	>3 days	
VI-B. Number of prior episodes in the same spinal region	0	1-3	>3	
VI-C. Time elapsed since last episode/injury	0	1-3 Years	<1year	
VI-D. Prior permanent work restrictions because of problems in the same spinal region	None	Temporary	Permanent	
VI-E. Prior objective testing to the same spinal region: EMG-NCV, X-ray, MRI-CT, Bone Scan	0	If ever taken	If taken within the last 2 years	
VI-F. Prior to latest claim, what ongoing medical, chiropractic visits, physical therapy visits were received for an injury to the same spinal region	0-2 times in last 3 yrs	3-6 times in last 3 yrs	>6 in last 3 yrs	
VI-G. Spondylolysis with Spondylolisthesis		<25% slip	>25% Slip	
VI-H. Radiculopathy (As objectified by Radiculopathy Schedule)			Prior History*	

9pts. = 90% may be apportioned off as a prior ratable condition

^{*}Assumes prior EMG is by itself sufficient to document radiculopathy. See comments in Section (to be added) about rating EMG as "3 points."

EXAMPLE 14 SCHEDULE I FORM FOR COMPUTING SPINAL IMPAIRMENTS		
I-D. Medically documented injury and subjective symptoms persisting for a minimum of six months with a clinical history of a significant injury event. This would include imaging evidence of objectifiable disc herniation(s) that displaced nervous tissue treated without surgery, spondylolisthesis, and segmental instability. Should have permanent activity restrictions.	7%	7%
Add Impairment (Total Amount for Spine):		
I-G. Persistent Radicular Neurologic Deficit * (If, after 6 months, the neurological deficits exceed 3% WP, then calculate the deficits as described from tables 11 & 12 and combine the new radiculopathy rating, in place of the 3% listed here.)	3% Combined	3%
Total Impairment Value Without App	ortionment:	10%
Apportionment (Amount apportioned from Schedule I must agree with Schedules I & VI):		
Final Impairment Related to the Last Event:		

^{*}See Radiculopathy Schedule

If there was no radiculopathy before his industrial lifting episode, it could not be apportioned. This radiculopathy would be subject to apportionment because it existed prior to his industrial lifting event.

Example 15: Prior History of Disc Problems Requiring Surgery and Now With A Recurrent Disc Herniation, Needing Another Surgery

Four months ago, a 30 year-old secretary fell from her roller stool and injured her back. She was found to have a recurrent L4-L5 disc herniation. Two years earlier she had a non-work related L4-L5 disc surgical excision with moderate remaining symptoms but no radiculopathy or activity modification. She has now undergone repeat surgery for the recurrent L4-L5 disc. She has done well, with occasional back and leg pain, but no radicular symptoms.

EXAMPLE 15 SCHEDULE II. USE FOR SURGICALLY TREATED SPINE CONDITIONS			Second Event
II-A. First spinal surgery at one level in a given spinal region, including herniated discs, severe degenerative or post traumatic changes, spondylolisthesis, segmental instability, and spinal stenosis. (Assigned one time per patient.)	10% one time per patient	10%	
II-C. Second or subsequent spinal operation in a given spinal region, including herniated discs, severe degenerative or post traumatic changes, foraminal stenosis, spondylolisthesis, segmental instability, and spinal stenosis.	2%		2%
Add Impairments:			12%
Apportionment:		10%	
Final Impairment Related to the Last Event:			2%

There is no rating given for the first disc excision, but she would be entitled to a 2% rating for the second operation because of the recurrent disc excision at the same level. There is no additional impairment for a recurrent disc treated conservatively, unless there is evidence of residual radiculopathy.

Example 16: Second Disc Injury, Treated Non-Operatively

A 40 year-old female slipped and fell at work, which left her with pain into her right quadriceps area, with numbness and weakness on standing. Her healing was protracted and therefore a MRI was obtained, demonstrating a L4-L5 far lateral disc protrusion, displacing the right L4 nerve root. She underwent a conservative program and eventually was declared stable with residual problems and no radiculopathy. Her history is significant in that she has had a prior non-industrial problem at L5-S1, with a herniation and surgical discectomy five years prior.

EXAMPLE 16 SCHEDULE I FORM FOR COMPUTING SPINAL IMPAIRMENTS	THORACIC- LUMBAR	
II-B. Medically documented injury, with continued pain, decreased motion, and imaging evidence of objectifiable disc herniation that displaces nervous tissue and has occurred from the same or subsequent injury, at another level other than the first and was treated either conservatively or surgically. This would also include surgery for severe degenerative or posttraumatic changes, spondylolisthesis, segmental instability, and spinal stenosis. (This is applied only one time per level per patient and is not to be applied to levels explored, but found to not require partial discectomy or foraminotomy.)	Add 3%	3%
Add Impairments:		3%
Apportionment:		
Impairment Related to the Last Event:		3%

This is a different disc and receives the rating for a subsequent disc. The prior surgery is unrelated to the L4-5 level. If one were to include the rating for the prior disc, it would be deducted as preexisting, so the net result is the same. If one is asked to include all of the prior ratable condition impairment rating, then report the 10% and deduct it under apportionment.

Example 17: First Industrial Disc Injury, Second Disc Herniation Requiring A Second Surgery

A 32 year-old secretary fell from her roller stool and injured her back. Two years earlier she had a non-work related L4-L5 disc excision with moderate remaining symptoms and permanent activity modifications. She has now incurred an occupational low back injury, causing an L5-S1 herniated disc. This eventually required surgery and she is left with no radiculopathy; however, her pain and functional status are not quite as they were before her recent fall. Her spinal motion is mildly decreased.

EXAMPLE 17 SCHEDULE II. USE FOR SURGICALLY TREATED SPINE CONDITIONS		
II-C. Second or subsequent spinal operation in a given spinal region, including herniated discs, severe degenerative or post traumatic changes, spondylolisthesis, segmental instability, and spinal stenosis.	2%	2%
II-B. Medically documented injury, with continued pain, decreased motion, and imaging evidence of objectifiable disc herniation that displaces nervous tissue and has occurred from the same or subsequent injury, at another level other than the first and was treated either conservatively or surgically. This would also include surgery for severe degenerative or posttraumatic changes, spondylolisthesis, segmental instability and spinal stenosis. (This is applied only one time per level per patient and is not to be applied to levels explored, but found to not require partial discectomy or foraminotomy.)	Add 3%	3%
Add Impairments:		
Apportionment:		
Final Impairment Related to the Last Event:		

This is a different disc and receives the rating for the second operation and level. No rating is given for the prior surgery. [See explanation above.]

Example 18: Disc Injury, Undergoing Three Surgeries, Including a Fusion

A 40 year-old office worker lifted and twisted with a computer monitor, which caused sudden pain in the back and down the leg. He eventually had a L5-S1 disc excision. He returned to work, only to have recurrent back pain and eventually he had a second surgical procedure with a disc excision at the L4-L5 level. He returned to work. One year later, without an intervening injury, he began to develop progressive worsening back pain with no radiculopathy. He had his third surgical procedure of a L4-L5 and a L5-S1 disc excision and fusion with instrumentation. His fusion was solid at twelve months, with continued leg pain to his foot, 2 cm of leg atrophy and EMG changes consistent with unilateral radiculopathy. He continued to have back pain and so two months ago had the instrumentation removed, without an appreciable change in his condition. Prior to lifting the monitor, he had no significant history of back pain.

EXAMPLE 18 SCHEDULE II FORM FOR COMPUTING SPINAL IMPAIRM	ENTS FOR IN	DIVIDUAL	AREAS	
SCHEDULE II. Use for Surgically Treated Spine Conditions		Initial Event	Second Event	Third Event
II-A. First spinal surgery at one level in a given spinal region, including herniated discs, severe degenerative or post traumatic changes, spondylolisthesis, segmental instability, and spinal stenosis. (Assigned one time per patient.)	10% one time per patient	10%		
II-B. Medically documented injury, with continued pain, decreased motion, and imaging evidence of objectifiable disc herniation that displaces nervous tissue and has occurred from the same or subsequent injury, at another level other than the first and was treated either conservatively or surgically. This would also include surgery for severe degenerative or posttraumatic changes, spondylolisthesis, segmental instability and spinal stenosis. (This is applied only one time per level per patient and is not to be applied to levels explored, but found not to require partial discectomy or foraminotomy.)	Add 3%		3%	
II-C. Second or subsequent spinal operation in a given spinal region, including herniated discs, severe degenerative or post traumatic changes, spondylolisthesis, segmental instability, and spinal stenosis. (L4-5 and Fusion)	2%		2%	2%
II-E. Fusions: Additional level (s)/each additional level. This is to be used only one time per level.	2%			2%
II-D. Spinal Fusions (For the first level fused) (use one time only)	3%			3%
Add Impairment (Total Amoun	t for Spine):	10%	5%	7%
II-F. Persistent Radicular Neurologic Deficit * (If, after 6 months, the neurological deficits exceed 3% WP, then calculate the deficits as described from tables 11 & 12 and combine the new radiculopathy rating, in place of the 3% listed here.	3% Combined			3%
Total Impairment Value Without Apportionment:			25%	
Арр	ortionment:			

^{*}See Radiculopathy Schedule

Notes: These impairments are listed separately for clarity though all are due to the same event. No impairment is given for internal fixation device removal.

Example 19: Degenerative Disc Disease With Two-Level Decompression

A 50 year-old man who does moderately heavy work fell at home. This left him with recurrent LBP with episodes ten years, six years, and two years ago. X-rays showed moderate to severe degenerative changes. A chiropractic physician treated him each time with his last visit two months before his industrial claim. For all of his prior episodes, he has missed a total of approximately ten days of work, seven of which have been in the last 12 months. He has had no prior MRIs or CT scans. Eight months ago, while lifting the tongue of a trailer, he had the onset of severe back pain, with subsequent development of a radiculopathy. After two months of conservative care, he eventually underwent a L4-L5 and a L5-S1 discectomy. He obtained moderately good results, with no residual radiculopathy, but is unable to be as active in his work as he was before lifting the trailer. He has been released with a permanent restriction permitting occasional lifting of 20-30 lbs, due to tolerance and risk.

SCHEDULE VI. SEVERITY INDEXING FOR APPORTIONMENT OF SCHEDULE I

(This applies only to the Impairment Process/Disability Process)

Schedule I requires a minimum of six months duration of symptoms, from the time of the injury and the impairment rating.

		9			
Score	0	1pt.	2pts.		
VI-A. Time lost from work in the last 12 months because of symptoms in the same spinal region	0	1-3 days	>3 days		
VI-B. Number of prior episodes in the same spinal region	0	1-3	>3		
VI-C. Time elapsed since last episode/injury	0	1-3 Years	<1year		
VI-D. Prior permanent work restrictions because of problems in the same spinal region	None	Temporary	Permanent		
VI-E. Prior objective testing to the same spinal region: EMG-NCV, X-ray, MRI-CT, Bone Scan	0	If taken prior to 2 years	If taken within the last 2 years		
VI-F. Prior to latest claim, what ongoing medical, chiropractic visits, physical therapy visits were received for an injury to the same spinal region	0 -2 times in last 3 yrs	3-6 times in last 3 yrs	>6 in last 3 yrs		
VI-G. Spondylolysis with Spondylolisthesis		<25% slip	>25% Slip		
VI-H. Radiculopathy (As objectified by Radiculopathy Schedule.)	None		Prior History		

8pts. = 70% of his maximal soft tissue award would be apportioned off as a prior ratable condition

EXAMPLE 19 SCHEDULE II. USE FOR SURGICALLY TREATED SPINE CONDITIONS			Second Event
II-A. First spinal surgery at one level in a given spinal region, including herniated discs, severe degenerative or post traumatic changes, spondylolisthesis, segmental instability and spinal stenosis. (Assigned one time per patient.)	10% one time per patient		10%
II-B. Medically documented injury, with continued pain, decreased motion, and imaging evidence of objectifiable disc herniation that displaces nervous tissue and has occurred from the same or subsequent injury, at another level other than the first and was treated either conservatively or surgically. This would also include surgery for severe degenerative or posttraumatic changes, spondylolisthesis, segmental instability and spinal stenosis. (This is applied only one time per level per patient and is not to be applied to levels explored, but found to not require partial discectomy or foraminotomy.)	Add 3%		3%
Add Impairments:			13%
Apportionment 1- ** Apportionment: = 8 pts. =70% I-C = 5%, 5% X 70% severity index = 4%		-4%	
Final Impairment Related to the Last Event:			9%

He does not have apportionment due to degenerative changes alone, but rather to the symptomatic and prior ratable status of those changes.

Example 20: Compression Fractures With Prior History And Rating

Eight months ago a 33 year-old roofer fell 18 feet and landed on his feet. He had immediate back pain and was taken to the hospital where x-rays demonstrated acute compression fractures of T11 (20%), T12 (30%) and L1 (10%). He has been treated surgically with a three-level fusion (four vertebral segments) and has now been declared stable. His complaints continue to be back pain with referral into the back of his legs. He has no objective radicular signs or neurological sequelae. He did have a history of an industrial back claim from a lifting injury three years ago, for which he received a 5% rating and was given permanent lifting restrictions of 30 lbs (which he was obviously violating while working as a roofer).

EXAMPLE 20 SPINE IMPAIRMENT EXAMPLE COMPRESSION FRACTURES WITH PRIOR HISTORY	
Pathology	Impairment
IV-A-3: 26% to 50% T12 (30%) Worst	6%
IV-A-6: Multiple fractures: (Second, T11 (20% Compression) and Third, L1 (10% Compression)	3%
IV-A-5: Fusion – If it is required to extend the fusion over more than three vertebral segments, add	5% one time
Final Impairment Related to the Last Event (Added):	14%
(Prior rating not related) Apportionment:	0
Impairment Industrial is responsible for:	14%

The 5% prior rating is not considered for apportionment, as it bears no relationship to the current injury or impairment.

Example 21: Burst Fracture Requiring Fusion

Eighteen months ago, a 40 year-old male fell twenty-five feet, incurring a burst fracture at L1 of 60%, with partial neurological loss. He eventually underwent a fusion that extended from T10 to L3. He is now medically stable, and with complete restoration of his neurological deficit. He has had no prior spinal pain.

EXAMPLE 21 SPINE IMPAIRMENT EXAMPLE BURST FRACTURES WITH FUSION		
Pathology	Impairment	
IV-A-4: Burst Fractures-Compression of 60%	15%	
IV-A-6: Fusion- If it is required to extend the fusion over more than three vertebral segments	5%	
Impairment (added):	20%	
(Prior rating not related) Apportionment:	0	
Impairment Industrial is responsible for:	20%	

Example 22: Coccygodynia

Twelve months ago, a 33 year-old female slipped and fell on the ice, landing on her buttocks. She had x-rays taken, showing a deviated coccyx. No prior films were available for comparison and she denies having any significant history of problems prior to the fall. She has had conservative treatment and continues to have intermittent pain with trouble sitting. A rectal examination is significant for a palpable step off of the sacral-coccygeal joint and reproduction of her usual and typical pain with provocative motion. (Radiographic diagnosis of coccyx fractures is notoriously unreliable.)

EXAMPLE 22 SPINE IMPAIRMENT COCCYGODYNIA		
Pathology	Impairment	
V. H - Healed fracture(s) with displacement, deformity and residuals signs(s) involving: h. Coccyx, displacement	3%	
Impairment:	3%	
Apportionment:	0%	
Impairment Industrial is responsible for:	3%	

Example 23: Prior Non-Industrial Injury With Two Industrial Injuries and Ratings

An 18 year-old male injured his L4-L5 disc while playing high school football in 1985. He subsequently re-injured this same area doing summer construction work in 1987. His treatment consisted only of physical therapy following both incidents. In 1996, while working on an oilrig, he injured his L4-L5 area again, resulting in lumbar discectomy. Following his 1987 work-related accident, he was rated in accordance with the 3rd edition (Revised) of the *AMA Guides* and was awarded a 10% (WP) impairment with 5% due to the 1985 football injury and 5% due to the 1987 construction industrial accident. What would be his current impairment following his 1996 discectomy?

EXAMPLE 23 SPINE IMPAIRMENT PRIOR NONINDUSTRIAL INJURY WITH TWO INDUSTRIAL INJURIES AND RATINGS			
Date	Pathology	Impairment	
1996	II-A. First spinal surgery at one level in a given spinal region, including herniated discs, severe degenerative or post traumatic changes, spondylolisthesis, segmental instability, and spinal stenosis. (Assigned one time per patient.)	10% one time per patient	
	Impairment:	10%	
1985 & 1987 Injuries Apportionment of his prior rating by current Physical Impairment Guides I-C. Medically documented injury and subjective symptoms persisting for a minimum of six months with a clinical history of a significant injury event. May have imaging evidence of moderate to severe degenerative changes. Should have permanent activity restrictions.		-5%	
	Additional Impairment Industrial is responsible for: (related to 1996)	5%	

Discussion: He has incurred another separate injury in 1996, requiring surgery. Therefore, for the sake of consistency it is recommended that the impairment he would have been awarded for his 1985 and 1987 injuries be deducted calculated using these current *IAIABC Guides*. In this case it would have been 5% WP, which is apportioned off of his new total award.

Example 24: Prior Industrial Rating With Another System, Now With A New Injury

A 30 year-old male injured his back at work in 1991 and was diagnosed with mechanical back pain and an impairment of 14% WP was calculated using the 3rd edition of the *AMA Guides* "Range of Motion Model." He was given permanent restrictions to not lift over 50 lbs, probably based on pain tolerance. Three years later in 1994, while working for another employer, he re-injured his back, which later required surgery, including a two-level discectomy and fusion with now persistent, worsened pain. He has now returned to work and has been declared medically stable.

EXAMPLE 24 SCHEDULE II. USE FOR SURGICALLY TREATED SPINE CONDITIONS			Second Event
II-A. First spinal surgery at one level in a given spinal region, including herniated discs, severe degenerative or post traumatic changes, spondylolisthesis, segmental instability, and spinal stenosis. (Assigned one time per patient.)	10% one time per patient		10%
II-B. Medically documented injury, with continued pain, decreased motion, and imaging evidence of objectifiable disc herniation that displaces nervous tissue and has occurred from the same or subsequent injury, at another level other than the first and was treated either conservatively or surgically. This would also include surgery for severe degenerative or posttraumatic changes, spondylolisthesis, segmental instability, and spinal stenosis. (This is applied only one time per level per patient and is not to be applied to levels explored, but found to not require partial discectomy or foraminotomy.)	Add 3%		3%
II-D. Spinal Fusions (For the first level fused) (use one time only)	3%		3%
II-E. Fusions: Additional level(s)/ each additional level. This is to be used only one time per level.	2%		2%
Add Impairments:			18%
Apportionment:			
Final Impairment Related to the Last Event:			13%

Discussion: In 1991 he incurred an injury, which probably began the degenerative cascade, predisposing him later for the problems he incurred in 1994; therefore, apportionment is indicated. The 14% awarded prior for soft tissue complaints is inflated. He has incurred another separate injury, therefore, for the sake of consistency it is recommended that the maximum impairment he would have been awarded under these current *IAIABC Guides* (5%), rather than the 14%, be used. In this case it would have been 5% WP, which is apportioned off of his new total award.

Example 25: Prior Industrial Rating With Another System, Now With A New Injury

A 40 year-old male incurred an industrial accident in 1985. He underwent a L5-S1 discectomy and was declared medically stable and given a 5% impairment. In 1988, he herniated another disc at L4-L5 and in 1989, underwent an L4-L5 discectomy. He was declared stable and was given another 5% impairment rating. In 1994, while working for another employer, he fell off a ladder, causing pain in his quadriceps area. He was later diagnosed with a L3-L4 disc herniation. He elected to have another discectomy - this time with a fusion from L3-S1. This was carried out in 1995 and he was declared medically stable. He has continued to have pain in the quadriceps area, with a loss of quadriceps strength, loss of the knee reflex, and a unilaterally positive EMG (with changes in the L4 nerve root distribution). His fusion is solid. What would be his total current impairment and what would be related to his 1994 industrial accident?

EXAMPLE 25 SCHEDULE II FORM FOR COMPUTING SPINAL IMPAIRMENTS FOR INDIVIDUAL AREAS				
SCHEDULE II. Use for Surgically Treated Spine Conditions		Initial Event	Second Event	Third Event
II-A. First spinal surgery at one level in a given spinal region, including herniated discs, severe degenerative or post traumatic changes, spondylolisthesis, segmental instability, and spinal stenosis. (Assigned one time per patient.)	10% one time per patient	10%		
II-B. Medically documented injury, with continued pain, decreased motion, and imaging evidence of objectifiable disc herniation that displaces nervous tissue and has occurred from the same or subsequent injury, at another level other than the first and was treated either conservatively or surgically. This would also include surgery for severe degenerative or posttraumatic changes, spondylolisthesis, segmental instability, and spinal stenosis. (This is applied only one time per level per patient and is not to be applied to levels explored, but found to not require partial discectomy or foraminotomy.)	Add 3%		3%*	3%
II-C. Second or subsequent spinal operation in a given spinal region, including herniated discs, severe degenerative or post traumatic changes, spondylolisthesis, segmental instability, and spinal stenosis.	2%		2%*	2%
II-D. Spinal Fusions (For the first level fused)(use one time only)	3%			3%
II-E. Fusions: Additional level(s)/each additional level. This is to be used only one time per level.	2%	2%*	2%*	
Add Impairment (Total Amount for Spine):		12%	7%	8%
II-F. Persistent Radicular Neurologic Deficit * (If, after 6 months, the neurological deficits exceed 3% WP, then calculate the deficits as described from tables 11 & 12 and combine the new radiculopathy rating, in place of the 3% listed here.	3% Combined			3%
Total Impairment Value Without App	ortionment:		30%	
Арр	ortionment:	12	7	11%

^{*}See Radiculopathy Schedule

The percentage for fusions at each level is apportioned off because the need for those fusions was more the direct result of the 1985 and 1988 herniations and not the 1994 injury.

Example 26: Impairment Related to One Event and Operation on Two Discs

A 35 year-old male picked up a 100-lb container and fell, hurting his back. He had pain into his right leg and his foot. He had sensory changes, reflex changes, and muscle weakness that were all consistent with a S1 radiculopathy. A MRI demonstrated a L5-S1 HNP, displacing his right S1 nerve root and a broad based L4-L5 central disc bulge, producing moderate spinal stenosis. Conservative treatment of six weeks did not give him acceptable relief; therefore he elected L5-S1 and L4-L5 discectomies. He is now four months post-op and he is left with occasional low back pain, but without radiculopathy. Prior to his industrial event, he had no significant history of back pain.

EXAMPLE 26 SCHEDULE II. USE FOR SURGICALLY TREATED SPINE CONDITIONS		Initial Event
II-A. First spinal surgery at one level in a given spinal region, including herniated discs, severe degenerative or post traumatic changes, spondylolisthesis, segmental instability, and spinal stenosis. (Assigned one time per patient.)	10% one time per patient	10%
II-B. Medically documented injury, with continued pain and decreased motion and imaging evidence of objectifiable disc herniation that displaces nervous tissue and has occurred from the same or subsequent injury, at another level other than the first and was treated either conservatively or surgically. This would also include surgery for severe degenerative or posttraumatic changes, spondylolisthesis, segmental instability, and spinal stenosis. (This is applied only one time per level per patient and is not to be applied to levels explored, but found to not require partial discectomy or foraminotomy.)	Add 3%	
Add Impairments:		13%
Apportionment:		
Final Impairment Related to the Last Event:		13%

If instead of a 2-level discectomy during one operation, the second disc was operated at a later time, there would be another 2%, II-C, added.