

**IAIABC 2003**  
**Upper Extremity Impairment Guides®**  
Part 3 of the Supplemental Impairment Rating Guides

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*Draft 11-03*

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## Table of Contents

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<b>Page</b>	<b>Subject</b>
<b>3</b>	<b>IAIABC Upper Extremity Introduction</b>
<b>4</b>	<b>2003 IAIABC Upper Extremity Rating Guidelines Worksheet</b>
5	Schedules in AMA 5 <sup>th</sup> Edition Not to Be Used for Rating Impairments in the Upper Extremity
<b>6</b>	<b>Upper Extremity Rotator Cuff Impairments</b>
6	Schedule VII. Upper Extremity Rotator Cuff Impairments
<b>6</b>	<b>Distal Clavicle Resection</b>
<b>7</b>	<b>Upper Extremity Neuro-Muscular Impairments</b>
7	Upper Extremity Neuropathies
7	Schedule VIIIa. Guidelines for Placement of Patients Within Schedule VIII
8	Schedule VIIIb. IAIABC's Specific Upper Extremity Impairments Due to Entrapment Neuropathy
8	IAIABC's Upper Extremity Strength Evaluations
8	Constrictive Tenosynovitis
<b>9</b>	<b>IAIABC Specific Upper Extremity Painful Organic Syndromes</b>
	<i>That are not otherwise accounted for within these Guides or the AMA 5<sup>th</sup> Edition</i>
9	Schedule IX. IAIABC Specific Upper Extremity Painful Organic Syndromes
<b>10</b>	<b>Examples of Upper Extremity Impairment Ratings</b>
10	Example #1: Rotator Cuff Repair
12	Example #2: Shoulder Fracture

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## **IAIABC Upper Extremity: To be used to clarify the AMA 5<sup>th</sup> Edition Chapter 16**

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### *Overview*

The 5<sup>th</sup> edition of the *American Medical Association Guides to the Evaluation of Permanent Impairment (AMA Guides)* provides a number of methods that can be utilized in the calculation of the impairment rating in the upper extremity. To provide rating methodology that facilitates consistency, the impairment committee has reviewed and simplified the upper extremity rating process as listed below. As with other sections of the *IAIABC Supplemental Guides for Rating Permanent Impairment (IAIABC Guides)*, the rater is reminded that the rating of a part should never be greater than that which is allowed for the whole part. This would mean that the maximum rating a physician could award for the upper extremity would be equal to 100% (amputation of the upper extremity or shoulder disarticulation), which is equal to 60% Whole Person. Impairment ratings for the upper extremity have not been adjusted for hand dominance, therefore hand dominance should not be considered in the determination of disability.<sup>1</sup>

In that there are a number of different ways an extremity can be rated, the IAIABC has adopted the following worksheet. This worksheet not only facilitates the process for those doing complicated impairment ratings, but greatly helps those reading the rating to better understand the derivation of the final number.

Only the following methods from the 5<sup>th</sup> edition of the *AMA Guides* that are listed in this worksheet, have been approved for rating impairments of the upper extremity. Physicians are reminded that these individual sections are to be combined:

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<sup>1</sup> Ibid, 16.1 B. p. 435.

**2003 IAIABC'S UPPER EXTREMITY RATING GUIDELINES WORKSHEET**

*Section/Page numbers correspond to 5<sup>th</sup> Edition of the AMA Guides unless stated to correspond to IAIABC Guides*

Name: \_\_\_\_\_ Age \_\_\_\_\_ Sex \_\_\_\_\_ Date \_\_\_\_\_

Side R L

Diagnosis: \_\_\_\_\_

Schedules to use for a rating of the Upper Extremity per IAIABC Guides		Section # (Page)	% Upper Ext
			Current <sup>i</sup>
<b>Anatomic</b>	Finger and Hand Impairment Methodology	16-1a (436)	
	Amputation	16-2 (441)	
	Peripheral Nerve Disorders	16-5 (480-495)	
	Entrapment Neuropathies	Page * IAIABC's 2003 Guides	
	CRPS type 1 or 2	16-5e (495)	
	Dermatological	18 (173)	
	Vascular	16-6 (497)	
<b>Functional</b>	Range of Motion including Ankylosis	16-4 (450)	
<b>Diagnosis Based</b>	Impairments Due to Other Disorders (Specify)	16-7a (499)	
	Arthroplasty	16-7b, (505)	
	Musculotendinous Impairment <sup>2</sup>	16-7c (506)	
	IAIABC's Specific Upper Extremity Neuro-Muscular Impairments	Page * IAIABC's 2003 Guides	
	Upper Extremity Rotator Cuff Impairments	Page * IAIABC's 2003 Guides	
Stand Alone: IAIABC's Specific Upper Extremity Painful Organic Syndromes (Page #, IAIABC's 2003 Impairment Guides) Not to be Combined with Other Ratings		Page * IAIABC's 2003 Guides	
<b>Total Upper Extremity Impairment:</b>			

<sup>i</sup>That which precipitated the need for care as compared to those findings that are present, absent the new findings from the current event

2 Constrictive tenosynovitis is a condition that is readily corrected by surgery, therefore the Impairment Committee recommends that Chart 16-29 found on page 507, only be applied to post-operative patients.

If more than one method can be used to calculate a rating, the physician should calculate the impairment rating using different alternatives and choose the method or combination of methods that gives the most clinically accurate and highest impairment rating.<sup>3</sup>

**Schedules in AMA 5<sup>th</sup> not to be used for Upper Extremity Ratings in IAIABC**

Carpal Tunnel Syndrome (495) <i>Use IAIABC's Upper Extremity Entrapment Neuropathies</i>
Strength Testing for Grip and Pinch, (507) except as found under IAIABC's Upper Extremity Neuro-Muscular Impairments 4
Tendonitis 16-7d (507) <i>Use IAIABC Painful Upper Extremity Painful Disorders</i>
Manual Muscle Testing 16-8c (509) 5 <i>Must have true neurological weakness and use 16-10, 16-11</i>
Criteria for Rating Impairment of One Upper Extremity 13-16 (338)
Criteria for Rating Impairments Related to Chronic Pain in One Upper Extremity Table 13-22 (343)

<sup>3</sup> The Guides to the Evaluation of Permanent Impairment, 5th Edition, Chicago, IL, American Medical Association; 2001. p. 526-27.

<sup>4</sup> Taylor-Shechtman, Poor reliability of grip strength, *Journal of Hand Therapy*, July/Sept

<sup>5</sup> Strength evaluation: voluntary muscles strength testing remains somewhat subjective until a precise way of measuring muscle contraction is generally debatable. It should also be noted that the correlation of strength with performance of activities of daily living is poor and that increased strength does not necessarily equate with increased function. Page 507

## Upper Extremity Rotator Cuff Impairments

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Schedule VII is to be used for individuals who incur rotator cuff injuries related to work. These are to be combined with other ratings as indicated.

<b>SCHEDULE VII. UPPER EXTREMITY ROTATOR CUFF IMPAIRMENTS</b>	
Recommend Pictures Be Taken, Confirming Findings	
Conservative Treatment for a MRI or Arthroscopically Demonstratable Tendonitis and/or Tear, Not Requiring Surgical Repair	2% UE
Partial Thickness Tear or a Full Thickness Tear, <1cm Repaired Surgically	3% UE
Full Thickness Tear, 1-3 cm Repaired Surgically	4% UE
Full Thickness Tear, 3-5 cm Repaired Surgically	5% UE
Full Thickness Tear, >5 cm Repaired Surgically	6% UE

## Distal Clavicle Resection

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### Distal Clavicle Resection

The award for the distal clavicle resection found in the *AMA Guides* 5<sup>th</sup> Edition table 16-27 (page 506) is only to be applied when the surgical treatment is primarily for acromioclavicular dysfunction and is not to exceed 5% upper extremity.

## IAIABC's Upper Extremity Neuro-Muscular Impairments

Upper extremity impairments due to entrapment neuropathies should be severity indexed according to Schedule VIII with impairment assigned to the category in which the majority of symptoms and findings occur. It should be noted that healed entrapment neuropathies might have no impairment.

### Upper Extremity Entrapment Neuropathies

SCHEDULE VIIIa. GUIDELINES FOR PLACEMENT OF PATIENTS WITHIN SCHEDULE VIII				
Signs-Symptoms	Minimum	Mild	Moderate	Severe
Nocturnal paresthesia	+	+	+	+
Paresthesia with Activity	+	+	+	+
2 pt discrimination	< 6mm	6mm	7-15mm	>15mm
Symptoms are within the anatomical distribution of the involved nerve	+	+	+	+
Atrophy	0	0	+/-	+
% of Strength loss Index <sup>ii</sup>	<10	10-30	31-60	>61
Phelan's test positive	+	+	+	N/A
Tinnel's test positive	+	+	+	+
Nerve Conduction Studies Positive <sup>iii</sup>	-	+	+	+
Electromyographic changes present	-	+/-	+	+

ii. 
$$\frac{\text{Normal Strength} - \text{Abnormal Strength}}{\text{Normal Strength}} = \% \text{ of Strength loss Index}$$

These tests should be done with validation of effort as described on page 508 of the *AMA Guides* 5th Edition.

iii. For nerve conduction testing, the Impairment Committee recommends uniform adoption of the AAE M Criteria

**SCHEDULE VIII-B. IAIABC'S SPECIFIC UPPER EXTREMITY IMPAIRMENTS DUE TO ENTRAPMENT NEUROPATHY**

<b>Entrapped Nerve</b>	<b>Entrapment Site</b>	<b>Minimum</b>	<b>Mild</b>	<b>Moderate</b>	<b>Severe</b>	<b>Complete Motor And Sensory Loss</b>
Median	Elbow	7	15	35	50	65
Median	Wrist	5	10	20	30	44
Ulnar	Elbow	3	10	30	40	50
Ulnar	Wrist	3	10	30	35	40

**IAIABC's Upper Extremity Strength Evaluations**

Upper extremity strength evaluations, (grip and pinch strength) should only be used as described here in Table VIIIb. The rater is not to award grip strength alone or in combination with other ratings.

**Constrictive Tenosynovitis**

Constrictive tenosynovitis is a condition that is readily corrected by surgery, therefore table 16-29 only be applied to post-operative patients.



## **IAIABC's Specific Upper Extremity Painful Organic Syndromes**

That Are Not Otherwise Accounted for Within These Guides or the 5<sup>th</sup> Edition of the AMA Guides

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A musculoskeletal condition characterized by pain (and weakness) with use of the affected member, attributed to a lesion in the soft tissue (capsule, ligament, tendon, fascia, muscle) and documented by clinical findings that have been present for longer than six months. Medical stability, (MMI) and the date someone qualifies for an impairment rating can be two separate dates.

<b>SCHEDULE IX. IAIABC'S SPECIFIC UPPER EXTREMITY PAINFUL ORGANIC SYNDROMES</b>				
(Upper Extremity% is 60% whole person)				
<b>Residual Symptoms</b>	<b>Minimum</b>	<b>Mild</b>	<b>Moderate</b>	<b>Severe</b>
Shoulder and or Elbow and or Wrist and or Hand	0%	1%	3%	5%

## Examples of Upper Extremity Impairment Ratings

### Example #1 Rotator Cuff Repair

A 45-year-old postman is seen for shoulder pain after a fall at work 2 weeks earlier, where he slipped on some ice and landed on his outstretched arm. He was found to be unable to abduct his arm past 60 degrees with considerable pain. He was suspected of having a rotator cuff tear and was taken to surgery, where he was found to have a complete, full thickness (>5cm) tear of the rotator cuff. This was surgically repaired with an open procedure with a distal clavicle resection. He underwent a course of physical therapy and has been declared medically stable. He has been left with weakness and associated loss of motion in his shoulder.

His ROM findings are listed below:

ROM Shoulder Impairment (Upper Extremity) Figures 16-40, 43, 43, 46. (AMA Guides, p. 466)					
Flexion (180°)	Extension (50°)	Abduction (170°)	Adduct (40°)	Internal Rotation (80°)	External Rotation (60°)
100/5%	30/1%	100/4%	30/1%	60/2%	60/0%
<b>Total Shoulder Range of Motion Impairment:</b>					13%

His impairment for his rotator cuff:

SCHEDULE VII. UPPER EXTREMITY ROTATOR CUFF IMPAIRMENTS	
For Distal Clavicle Resection to be awarded (p.506), at least 2 cms of the complete clavicle must be Removed	
Recommend Pictures Be Taken, Confirming Findings	
Conservative Treatment for a MRI or Arthroscopically Demonstratable Tendonitis and/or Tear, Not Requiring Surgical Repair	2% UE
Partial Thickness Tear or a Full Thickness Tear, <1cm Repaired Surgically	3% UE
Full Thickness Tear, 1-3 cm Repaired Surgically	4% UE
Full Thickness Tear, 3-5 cm Repaired Surgically	5% UE
Full Thickness Tear, >5 cm Repaired Surgically	6% UE
Full Thickness Tear, Global, Unreparable	

His impairment is 6% for his rotator cuff repair. 6% combined with 13% is 18% upper extremity or 11% whole person.

<b>2003 IAIABC'S UPPER EXTREMITY RATING GUIDELINES WORKSHEET</b> <i>Section/Page numbers correspond to 5<sup>th</sup> Edition of the AMA Guides unless stated to correspond to IAIABC Guides</i>			
<b>Schedules to use for a rating of the Upper Extremity per IAIABC Guides</b>		<b>Section # (Page)</b>	<b>% Upper Ext</b>
			Current <sup>i</sup>
<b>Functional</b>	Range of Motion including Ankylosis	16-4 (450)	13%
<b>Diagnosis Based</b>	Upper Extremity Rotator Cuff Impairments	Page * IAIABC's 2003 Guides	6%
<b>Total Upper Extremity Impairment:</b>			18%

## Example #2: Shoulder Fracture

One year ago, a 58-year-old male incurred a fracture to his right shoulder after a fall at work. He has undergone therapy and has been left with a weak, stiff and painful upper extremity with associated numbness secondary to a partial neuropathy of the radial nerve. After undergoing physical therapy, he has been declared medically stable.

An impairment is calculated using the IAIABC's 2003 Impairment Guides and the AMA 5<sup>th</sup> edition.

For his neurological loss, the radial nerve is weighted at 45% UE.

<b>Table 16-16 Maximum Upper Extremity Impairment due to Unilateral Sensory or Motor Deficits</b> <i>AMA Guides (p. 492)</i>			
<b>Nerve</b>	<b>Sensory Deficits</b>	<b>Motor Deficits</b>	<b>Combined Motor and Sensory deficits</b>
Radial (upper arm) with Loss of Triceps	5	42	45

He qualifies for 30% of the radial nerve.

<b>Table 16-11 Determining Impairment Of The Upper Extremity Due To Motor And Loss Of Power Deficits Resulting From Peripheral Nerve Disorders Based On Individual Muscle Rating</b> (Upper or Lower Extremity Value) <i>AMA Guides (p.484)</i>		
<b>Class</b>	<b>Description of Muscle Function</b>	<b>% Motor Deficit</b>
3	Active movement against gravity only without resistance	26 - 50

30% for the total value of the radial nerve x 45% equals 14% upper extremity for motor and sensory loss.

### Loss of Motion

<b>ROM Shoulder Impairment</b> (Upper Extremity) Figures 40, 43, 44, 46 <i>AMA Guides (p. 466)</i>					
Flexion (180°)	Extension (50°)	Abduction (170°)	Adduct (40°)	Internal Rotation (80°)	External Rotation (60°)
130/3%	30/1%	120/3%	30/1%	40/3%	70/0%
<b>Total Shoulder Range of Motion Impairment:</b>					<b>11%</b>

For his loss of motion he would have **11% Upper extremity**.

**2003 IAIABC'S UPPER EXTREMITY RATING GUIDELINES WORKSHEET**

*Section/Page numbers correspond to 5<sup>th</sup> Edition of the AMA Guides unless stated to correspond to IAIABC Guides*

Schedules to use for a rating of the Upper Extremity per IAIABC Guides		Section # (Page)	% Upper Ext
			Recent
	Peripheral Nerve Damage	16-5 (480-495)	14%
<b>Functional</b>	Range of Motion including Ankylosis	16-4 (450)	11%
<b>Total Upper Extremity Impairment:</b>			25%

**These combine to equal 25% upper extremity or 14% whole person.**

