

On February 18, 2003 appellant filed a Form CA-7 claim for a schedule award based on a partial loss of use of his right upper extremity.

On April 11, 2003 the Office referred appellant to Dr. John Gragnani, a Board-certified orthopedic surgeon, for an impairment evaluation to determine whether he had sustained any permanent impairment of the right upper extremity resulting from his accepted, work-related conditions.

In a report dated April 28, 2003, Dr. Gragnani submitted a report and impairment evaluation. Using the American Medical Association, *Guides to the Evaluation of Permanent Impairment* (A.M.A., *Guides*) (fifth edition), Dr. Gragnani calculated a 21 percent permanent impairment of the right upper extremity. He stated:

“For range of motion measurements of the right shoulder, using a goniometer, flexion was 110 degrees, extension 32 degrees, abduction 74 degrees, adduction 20 degrees, internal rotation 60 degrees, and external rotation 55 degrees. For range of motion measurements of the right elbow, using a goniometer, flexion was 134 degrees, extension 0 degrees, pronation 78 degrees, and supination 78 degrees. Using the goniometer for range of motion measurements at the right wrist, flexion was 64 degrees, extension 50 degrees, ulnar deviation 40 degrees, and radial deviation 16 degrees.

“The upper extremities were measured for any evidence of atrophy or swelling of significance. The upper arms were 38 centimeters right and 36.5 centimeters left. The forearms were 33 centimeters right and 32.5 centimeters left. No atrophy or significant swelling was therefore detected.

“The Jamar dynametric readings were as follows: Position 1 -- 14 kilograms [on the] right, 18 kilograms [on the] left; Position 2 -- 22 kilograms [on the] right, 38 kilograms [on the] left; Position 3 -- 28 kilograms [on the] right, 18 kilograms [on the] left; Position 4 -- 40 kilograms [on the] right, 52 kilograms [on the] left; Position 5 -- 28 kilograms [on the] right, 39 kilograms [on the] left.”

With regard to specific figures and tables, Dr. Gragnani stated:

“From Figure 16-40, shoulder flexion of 110 degrees is 5 percent impairment, and extension of 32 degrees is 1 percent. From Figure 16-43, 74 degrees abduction is 5 percent impairment, and 20 degrees adduction is 1 percent impairment. From Figure 16-46, internal rotation of 60 degrees is 2 percent impairment, and external rotation of 55 percent is 0 percent. Therefore, the total impairment for range of motion loss for the right shoulder is 14 percent.

“Range of motion losses of the right elbow were evolved using the goniometric measurements from the appropriate pie charts. From Figure 16-34, flexion of 134 degrees is 1 percent impairment. Extension of 0 degrees is 0 percent impairment. From Figure 16-37, supination of 78 degrees is 0 percent impairment. Pronation

of 78 degrees is also 0 percent impairment. The total for the elbow range of motion losses is one percent.

“For range of motion measurements at the right wrist, the appropriate goniometric measurements were applied to the appropriate pie charts as follows. From Figure 16-28, flexion of 64 degrees is 0 degrees. Extension of 50 degrees is 2 percent impairment. Reference to the radial and ulnar deviation, the pie chart of Figure 16-31 was utilized. Ulnar deviation of 40 degrees impairment. Radial deviation of 16 degrees is 1 percent impairment. The total for the wrist, therefore, is three percent for range of motion losses.

“Tables 16-10 and 16-11 were considered in reference to motor strength and sensation ... in the ulnar distribution were affected on this examination, as witnessed by the two-point discrimination of seven millimeters on the right little finger and the grip strength measurements on the Jamar dynamometer. Therefore, from Table 16-10, impairment due to sensory deficits, distorted superficial tactile sensibility, light touch, is considered to be Grade [4] for 10 percent sensory deficit. From Table 16-15, for ulnar nerve below mid forearm, the sensory deficit is seven percent. Seven percent times the 10 percent adds 1 percent for sensory changes within the ulnar distribution.

“For the motor weakness from Table 16-11, Grade [4] was considered for complete active range of motion against gravity with some resistance. This would be 10 percent motor deficit in the ulnar distribution. From Table 16-15, for motor deficit due to the ulnar nerve below mid forearm, the deficit is considered to be 35 percent, which is taken times the 10 percent for 3.5 percent of the right upper extremity. No additional ratings were considered to be appropriate....

“The total impairment for the right upper extremity is calculated using the combined tables chart, page 604, in the following fashion. The largest value of 14 percent for the range of motion loss for the shoulder is then combined with the next largest value, which is 3.5 percent for motor loss, which is rounded to 4 percent. 14 percent and 4 percent gives a rating value of 17 percent. The 17 percent is then combined with 3 percent for the wrist range of motion loss, which is 19 percent. The 19 percent is combined with 1 percent for the elbow range of motion loss, which is 20 percent. The 20 percent is combined with the 1 percent loss for sensory changes, yielding 21 percent. Therefore, the total for the right upper extremity, including shoulder, elbow, and wrist with sensory and motor changes, is calculated at 21 percent for right upper extremity.”

In a memorandum/impairment evaluation dated May 3, 2003, an Office medical adviser adopted Dr. Gragnani’s findings and conclusions and applied them to the applicable figures and tables of the A.M.A., *Guides*. The Office medical adviser determined that appellant had a 20

percent permanent impairment of the right upper extremity using a slightly different method of calculation. He stated:

“Technically, correctly using the fifth edition [of the A.M.A.,] *Guides*, the ratings for weakness and sensory change are added and then combined with the rating for the [range of motion] restriction to obtain the overall elbow rating. Thus four percent plus one percent equals five percent. Five percent combined with one percent is six percent. The overall r[ight] upper extremity rating is considered using the Combined Value[s] Chart. Thus[,] 14 percent combined with 6 percent yields 19 percent, combined with 1 percent yields 20 percent ... of the r[ight] upper extremity.”

On May 9, 2003 the Office granted appellant a schedule award for a 20 percent impairment rating for the left lower extremity for the period October 2, 2002 to December 12, 2003, for a total of 62.4 weeks of compensation.

On May 20, 2003 appellant requested an oral hearing, which was held on May 20, 2003.

By decision dated February 18, 2004, an Office hearing representative affirmed the May 9, 2003 Office decision.

LEGAL PRECEDENT

The schedule award provision of the Federal Employees' Compensation Act¹ set forth the number of weeks of compensation to be paid for permanent loss, or loss of use of the members of the body listed in the schedule. Where the loss of use is less than 100 percent, the amount of compensation is paid in proportion to the percentage loss of use.² However, the Act does not specify the manner in which the percentage of loss of use of a member is to be determined. For consistent results and to insure equal justice under the law to all claimants, the Office has adopted the A.M.A., *Guides* (fifth edition) as the standard to be used for evaluating schedule losses.³

ANALYSIS

In this case, the Office medical adviser, applying Dr. Gragnani's findings and calculations to the applicable tables and figures of the A.M.A., *Guides*, computed a 20 percent impairment of the right upper extremity based on loss of range of motion for the right shoulder, elbow and wrist, and adding impairment ratings for weakness and sensory changes. Dr. Gragnani relied on Figure 16-40, page 476 of the A.M.A., *Guides*, which are derived from section 16.4i of the A.M.A., *Guides*. Section 16.4i stipulates that there are impairment curves which should be converted to pie charts of upper extremity impairments by applying the upper

¹ 5 U.S.C. §§ 8101-8193; *see* 5 U.S.C. § 8107(c).

² 5 U.S.C. § 8107(c)(19).

³ 20 C.F.R. § 10.404.

extremity functional value of each motion unit as a conversion factor, as indicated in Figures 16-40, 16-43 and 16-46. That section further stipulates that the upper extremity impairment resulting from the pie charts by adding directly the upper extremity impairment values contributed by each motion unit.

Consistent with these guidelines, Dr. Gragnani, pursuant to Figure 16-40 at page 476, recorded shoulder flexion of 110 degrees, which translated to 5 percent impairment, and extension of 32 degrees, which translated to 1 percent. Pursuant to Figure 16-43 at page 477, Dr. Gragnani measured 74 degrees abduction, which translated to 5 percent impairment, and 20 degrees adduction, which translated to 1 percent impairment. Using Figure 16-46 at page 479, Dr. Gragnani measured internal rotation of 60 degrees, which translated to 2 percent impairment, and external rotation of 55 percent, which translated to 0 percent. These calculations rendered a total impairment for range of motion loss for the right shoulder of 14 percent.

With regard to range of motion losses for the right elbow, the A.M.A., *Guides* state at section 16.4h a process similar to that recommended for range of motion of losses for the shoulder, in that the upper extremity impairment due to abnormal elbow motion is calculated from the pie charts by adding directly the upper extremity impairment values contributed by each motion unit. In accordance with this process, Dr. Gragnani relied on the goniometric measurements from the appropriate pie charts. Pursuant to Figure 16-34 at page 472, Dr. Gragnani calculated flexion of 134 degrees, which translated to a 1 percent impairment, and extension of 0 degrees, which rendered a 0 percent impairment. Using Figure 16-37 at page 474, Dr. Gragnani found a 0 percent impairment based on supination of 78 degrees, and 0 percent impairment based on pronation of 78 degrees. This rendered a total range of motion loss of one percent stemming from the right elbow.

The Office medical adviser adopted these findings of Dr. Gragnani, but then found that a correct interpretation of the fifth edition of the A.M.A., *Guides* mandated the addition of ratings for weakness and sensory change. Section 16.5 of the A.M.A., *Guides*, which deals with “Impairment of the [u]pper [e]xtremities [d]ue to [p]eripheral [n]erve [d]isorders,” states at subsection 16.5a, on page 480:

“The evaluation of permanent impairment resulting from peripheral nerve disorders is based on the anatomic distribution and severity of loss of function resulting from (1) sensory deficits or pain and (2) motor deficits and loss of power.”

At subsection 16.5b, page 481, it is stated:

“The upper extremity impairment is calculated by multiplying the grade of severity of the sensory deficit (Table 16-10a) and/or the motor deficit (Table 16-11a) by the respective maximum upper extremity impairment value resulting from sensory and/or motor deficits of each nerve structure involved.... [The] Impairment Determination Method [outlined under this section recommends, under Part 3, to] *Grade the severity of sensory deficits or pain* according to Table 16-10a and/or that of the *motor deficits* according to Table 16-11a. (Emphasis in the original). [Part 4 states] Find the values for *maximum impairment of the*

upper extremity due to sensory and/or motor deficits of the nerve structure involved: ... major peripheral nerves (Table 16-15). [Finally, Part 5 states:] For each nerve structure involved, multiply the grade of severity of the sensory and/or motor deficit (see step 3 above) by the appropriate maximum upper extremity impairment value (see step 4 above) to determine the upper extremity percent for each function.”

Dr. Gragnani stated in his report that “Tables 16-10 and 16-11 were considered in reference to motor strength and sensation in the ulnar distribution were affected on this examination, as witnessed by the two-point discrimination of seven millimeters on the right little finger and the grip strength measurements on the Jamar dynamometer. Therefore, from Table 16-10, impairment due to sensory deficits, distorted superficial tactile sensibility, light touch, is considered to be Grade 4 for 10 percent sensory deficit. From Table 16-15, for ulnar nerve below mid forearm, the sensory deficit is seven percent. Seven percent times the ten percent adds one percent for sensory changes within the ulnar distribution.

“For the motor weakness from Table 16-11, Grade 4 was considered for complete active range of motion against gravity with some resistance. This would be 10 percent motor deficit in the ulnar distribution. From Table 16-15, for motor deficit due to the ulnar nerve below mid forearm, the deficit is considered to be 35 percent, which is taken times the 10 percent for 3.5 percent of the right upper extremity.”

The Office medical adviser calculated a four percent impairment rating based on these measurements of weakness and sensory change, added the one percent range of motion loss for the elbow, then added the one percent range of motion loss for the right wrist to obtain an additional impairment rating of six percent. Using the Combined Values Chart, the Office medical adviser calculated that 14 percent combined with 6 percent yielded a 19 percent rating, which when combined with 1 percent yielded a 20 percent impairment of the right upper extremity. As this calculation was in accordance with the applicable figures and tables of the A.M.A., *Guides*, the Board affirms the Office’s May 9, 2003 schedule award decision. Because appellant did not submit any additional medical evidence to establish that he sustained any additional permanent impairment, the Office properly found that appellant was not entitled to more than a 20 percent impairment of the right upper extremity.

CONCLUSION

The Board finds that appellant has no more than a 20 percent impairment of the right upper extremity.

ORDER

IT IS HEREBY ORDERED THAT the February 18, 2004 and May 9, 2003 decisions of the Office of Workers' Compensation Programs be affirmed.

Issued: April 18, 2005
Washington, DC

Alec J. Koromilas
Chairman

Colleen Duffy Kiko
Member

A. Peter Kanjorski
Alternate Member