
CHAPTER 3

IMPAIRMENT OF SPINE AND LIMBS

This chapter contains six parts:

- Part 3.1 — Upper Limbs
- Part 3.2 — Lower Limbs
- Part 3.3 — Spine
- Part 3.4 — Resting Joint Pain
- Part 3.5 — Ranges of Joint Movement
- Part 3.6 — Spine and Limbs Age Adjustment

INTRODUCTION

This chapter is used to assess the motor function of the spine and limbs. Sensory loss is to be assessed under Chapter 5 (Neurological Impairment).

Impairment of limbs

When a previously-accepted condition is later removed by an amputation that is also an accepted condition, the rating is to be based on the amputation or the resulting functional deficit, whichever results in the higher impairment rating. The previously accepted condition is not to be given an impairment rating.

PART 3.1: UPPER LIMBS

Functional impairment is to be calculated separately for each upper limb. Thus one functional impairment rating may be calculated for the right upper limb and another for the left upper limb.

Calculation of the impairment rating for conditions of each upper limb

Follow the steps below to calculate the impairment rating for accepted conditions of each upper limb: (Steps 2–8 are elaborated in the following pages.)

| | | |
|---------------|---|---------|
| STEP 1 | If accepted condition(s) affect only the <i>right</i> upper limb, follow steps 2–8. If accepted condition(s) affect only the <i>left</i> upper limb, follow steps 2–8 substituting “left” for “right” in the instructions. If accepted condition(s) affect <i>both</i> upper limbs, follow steps 2–8 to assess the right upper limb, and then, to assess the left upper limb, repeat steps 2–8 substituting “left” for “right” in the instructions. | |
| STEP 2 | Establish which joints in the right upper limb, if any, have some restriction of movement as a result of accepted conditions affecting the right upper limb. | Page 40 |
| STEP 3 | <i>(Omit this step if there is no restriction of joint movement in the right</i> | Page 41 |

| | | |
|---------------|--|---------|
| | <i>upper limb.</i>) Calculate the functional impairment due to restriction of range of movement of joints in the right upper limb as a result of accepted conditions of the right upper limb. | |
| STEP 4 | Calculate the functional impairment rating for the right upper limb as a whole using Table 3.1.2. | Page 43 |
| STEP 5 | Compare the functional impairment rating for the right upper limb as a whole with the functional impairment rating from any restricted range of movement. Take the higher of these two as the final functional impairment rating for the right upper limb. | Page 43 |
| STEP 6 | Make any applicable age adjustment to the final functional impairment rating for the right upper limb by applying Table 3.6.1 in Part 3.6 of this chapter. | Page 43 |
| STEP 7 | Determine if any Other Impairment rating applies to the right upper limb. | Page 44 |
| STEP 8 | <i>(Omit this step if no Other Impairment rating applies to the right upper limb.)</i> Compare the final functional impairment rating for the right upper limb with any Other Impairment rating applicable to the right upper limb. Take the higher of these ratings. | Page 45 |

Step 2: Establish which joints in the right upper limb have some restriction of movement as a result of accepted conditions of the right upper limb.

For the purposes of assessment under the *Guide*, the major joints of the upper limb are the shoulder, the elbow and the wrist.

In addition, the joints of the thumb and fingers are also to be considered. However, only one rating is to be given for the total effect of restrictions in all joints of the thumb and fingers considered together.

Conditions such as painful arc syndrome and fractured neck of radius may affect the range of movement (ROM) of the shoulder. A condition such as fractured scaphoid will be likely to affect the ROM of the wrist. In cases of fractures, the ranges of movements of the joints proximal to and distal to the fracture site should generally be considered as joints the ROM of which may be affected.

Hence, it must be determined which, if any, of

- shoulder;
- elbow;
- wrist; and
- thumb and fingers,

potentially have loss of range of movement due to accepted conditions.

Certain vascular conditions or neurological conditions of the upper limb, such as muscle weakness, tremor, apraxia, and loss of co-ordination, may have an effect on the function of the upper limb without restricting the range of movement of any joint of the limb. The assessment of such conditions is to be made under Step 4 of this Part.

Step 3: Calculate the functional impairment due to restriction of range of movement of joints in the right upper limb as a result of accepted conditions of the right upper limb.

Single functional impairment ratings may be obtained for each of the following four joints or sets of joints based on restriction of range of movement due to accepted conditions:

- shoulder;
- elbow;
- wrist; and
- thumb and fingers.

These impairment ratings are to be obtained by applying Table 3.1.1. Such functional impairment ratings are referred to as the functional impairment rating of the upper limb based on restriction of range of movement of the shoulder, elbow, wrist, or thumb and fingers respectively.

The loss of range of movement is to be estimated to the nearest quarter of the normal range of movement.

The range of movement relevant to assessment under this *Guide* is the active range of movement of the joint, that is the range through which the veteran can move the joint by virtue only of those muscles whose normal function it is to do so. The ability of a veteran to flex a joint by use of other, non-affected body parts does not reduce the rating which the impaired joint attracts. (For example, if a veteran cannot flex the right elbow in the normal fashion, by use of the right biceps, but can use the left hand to bend the right elbow, the right elbow should be assessed as having “loss of almost all movement”.)

The loss of range of movement will usually be provided as a fractional loss of range of movement and such data can be related directly to items within Table 3.1.1. However, sometimes, the measured movements of an affected joint will be available in degrees. In such a case the measured movement must be compared with the average range of movement of a normal joint to obtain the fractional loss of range of movement.

The average ranges of movement of various normal joints of the upper limb may be obtained from Table 3.5.1 in Part 3.5. These values are to be used in arriving at the fractional loss of range of movement when the actual movements of a joint are known in degrees.

If non-accepted conditions contribute to the loss of range of movement, Chapter 19 (Partially Contributing Impairment) is to be applied in conjunction with Table 3.1.1.

For the purposes of this chapter:

“**position of function**” means the position that interferes least with the total function of the limb or the spine; and

“**unfavourable position**” means a position that is significantly different from the position of function; and

“**flail joint**” means a joint that is completely unstable in all directions.

Functional Loss Table
3.1.1



LOSS OF MUSCULOSKELETAL FUNCTION: UPPER LIMB JOINTS

| Impairment Ratings | Shoulder | Elbow | Wrist | Thumb and Fingers |
|---|--|--|--|---|
| NIL | <ul style="list-style-type: none"> No abnormality. X-ray changes only with normal range of movement. | <ul style="list-style-type: none"> No abnormality. X-ray changes only with normal range of movement. | <ul style="list-style-type: none"> No abnormality. X-ray changes only with normal range of movement. | <ul style="list-style-type: none"> No abnormality. X-ray changes only with normal range of movement. |
| FIVE | | | Loss of about one-quarter normal range of movement. | <ul style="list-style-type: none"> Ankylosis in any position of joints of 4th or 5th finger. Ankylosis in any position of function of any joints of 2nd or 3rd finger. |
| TEN | Loss of about one-quarter normal range of movement. | Loss of about one-quarter normal range of movement. | Loss of about one-half normal range of movement. | <ul style="list-style-type: none"> Ankylosis in an unfavourable position of any or all joints of 2nd and 3rd finger. Thumb: loss of almost all movement or complete ankylosis of any or all joints (in position of function). |
| FIFTEEN | | | Loss of about three-quarters normal range of movement. | Thumb: ankylosis of any or all joints in an unfavourable position. |
| TWENTY | Loss of about one-half normal range of movement. | Loss of about one-half normal range of movement. | Loss of almost all movement, or complete ankylosis in position of function. | |
| THIRTY | Loss of about three-quarters normal range of movement. | Loss of about three-quarters normal range of movement. | Ankylosis in an unfavourable position, or a flail joint. | |
| FORTY | Loss of almost all movement, or complete ankylosis in position of function. | Loss of almost all movement, or complete ankylosis in position of function. | | |
| FIFTY | Ankylosis in an unfavourable position, or a flail joint. | Ankylosis in an unfavourable position, or a flail joint. | | |
| <p><i>Only one rating is to be selected from this table for each shoulder, elbow, or wrist; and only one rating is to be selected from this table for the thumb and fingers together. Of these ratings only the highest is to be taken for each side.</i></p> | | | | |

Ratings from this table are age adjusted (see Table 3.6.1)

Step 4: Calculate the functional impairment rating for the right upper limb as a whole using Table 3.1.2.

Table 3.1.2 measures the loss of function relating to the upper limb as a whole. Only one rating is to be given from this table, for the right upper limb, for any condition or combination of conditions. To attract a particular rating, the degree of impairment must be greater than that described at all lower levels.

Table 3.1.2 is the only relevant table if the use of an upper limb is restricted by vascular conditions or neurological conditions, such as muscle weakness, tremor, apraxia, loss of co-ordination, fatigue or pain, and when no condition affecting the range of movement of a joint is present.

If non-accepted conditions contribute to the loss of function, Chapter 19 (Partially Contributing Impairment) is to be applied in conjunction with Table 3.1.2.

Step 5: Compare the impairment rating for loss of function of the right upper limb with the impairment rating from any restricted range of movement. Take the higher of these two as the final functional impairment rating for the right upper limb.

After the application of Chapter 19 (Partially Contributing Impairment) in Step 3, the functional impairment rating from loss of range of movement is to be compared with the functional impairment for the use of the limb as whole.

The higher of these two ratings is then taken as the final functional impairment rating for the right upper limb.

Step 6: Make any applicable age adjustment to the final functional impairment rating for the right upper limb by applying Table 3.6.1 in Part 3.6 of this chapter.

The functional impairment rating obtained in Step 4 is to be age adjusted by applying Table 3.6.1.

Total loss of function of each upper limb is considered to be 60 per cent impairment of the whole person. Amputation of an arm at the shoulder joint, or total loss of use of an arm is equivalent to 60 impairment points.

With the exception of a forequarter amputation, no condition or combination of conditions affecting an arm shall receive an impairment rating exceeding 60 points.

In the case of a veteran aged 45 years or less, if the application of age adjustment to the functional impairment rating of an accepted condition affecting the right upper limb results in an impairment rating higher than 60 impairment points, the functional impairment rating for the right upper limb is to be taken as 60 impairment points and not at the higher rating obtained by applying Table 3.6.1.



Functional Loss
Table 3.1.2

LOSS OF MUSCULOSKELETAL FUNCTION: (BASED ON USE OF LIMB AS A WHOLE)

| Impairment Ratings | Criteria |
|---------------------------|--|
| NIL | Can use limb efficiently for normal tasks and without undue fatigue. |
| TWO | Can use limb efficiently for normal tasks but with excessive fatigue towards the end of the day. |
| FIVE | Can use limb efficiently for normal tasks without excessive fatigue for no more than half an hour. |
| TEN | <ul style="list-style-type: none"> • Can use limb reasonably well in most circumstances, but frequent difficulties are manifested by: <ul style="list-style-type: none"> - minor loss of digital dexterity causing handwriting changes, or difficulty in manipulation of small or fine objects, <i>or</i> - minor loss of grip strength causing difficulty in gripping moderately heavy to heavy objects. • Can use limb efficiently for normal tasks without excessive fatigue for no more than ten minutes. |
| FIFTEEN | Can use limb reasonably well in most circumstances, but frequent difficulties are manifested by: <ul style="list-style-type: none"> - minor loss of digital dexterity causing handwriting changes, or difficulty in manipulation of small or fine objects, <i>and</i> - minor loss of grip strength causing difficulty in gripping moderately heavy to heavy objects. |
| TWENTY | Can use limb reasonably well in some circumstances, but with more noticeable difficulty manifested by either or both of: <ul style="list-style-type: none"> - minor loss of digital dexterity and reduced grip strength causing difficulty in manipulation of larger objects, <i>or</i> - major loss of digital dexterity causing marked difficulty in handwriting or manipulation of everyday domestic objects. |
| THIRTY | Can use limb reasonably well in a few circumstances only. Use of limb is otherwise inefficient, with increasing difficulty for self-care activities. Poor digital co-ordination and markedly reduced grip strength in, eg, lifting light objects. Problems with dressing, feeding or writing. |
| FORTY | Uses limb inefficiently in all circumstances. Use of limb subject to major limitations, capable of light grip only. Aids, eg, splints, required for everyday activities such as writing and eating. |
| FIFTY | Has only some movement against gravity at elbow, shoulder or wrist. |
| SIXTY | Unable to use upper limb at all. |
| | <i>Only one rating is to be selected from this table for each upper limb, for any condition or combination of conditions.</i> |

Ratings from this table are age adjusted (see Table 3.6.1)

Step 7: Determine if any Other Impairment rating applies to the right upper limb.

There are three Other Impairment tables relating to the upper limb. These are:

- Table 3.1.3 — Amputations of Fingers and Thumb; and
- Table 3.1.4 — Amputations of Upper Limb; and
- Table 3.1.5 — Dislocation of Shoulder.

Not more than one rating may be selected from either Table 3.1.3 or Table 3.1.4, if the veteran has an amputation affecting the right upper limb.

An additional rating may be selected from Table 3.1.5 if it is applicable to the right shoulder.

If no ratings from Tables 3.1.3 or 3.1.4 or 3.1.5 apply to the right upper limb, then the functional impairment rating obtained under Step 6 is the final functional impairment rating for the right upper limb.

Step 8: Compare the final functional impairment rating for the right upper limb with any Other Impairment rating applicable to the right upper limb. Take the higher of these ratings.

The final functional impairment rating obtained in Step 6 is to be compared with the impairment rating for that limb obtained in Step 7 (if any).

The higher of the two ratings is then to be taken as the total final impairment rating for the right upper limb.

If multiple accepted conditions are responsible for the impairment of an upper limb, the situation will be more complicated and may require applying Chapter 20 (Apportionment).

If the veteran has received a rating from either Table 3.1.3 or Table 3.1.4 *and also* a rating from Table 3.1.5 the substeps below are to be followed.

| | |
|-------------------|--|
| Substep 8A | The functional impairment rating for the right upper limb, obtained in Step 6, is to be apportioned into two or three parts, as appropriate, by applying Chapter 20 (Apportionment). The parts are: <ul style="list-style-type: none">• one part corresponding to the impairment due to amputations affecting the right upper limb;• one part corresponding to the impairment due to dislocation of the right shoulder;• one part corresponding to the impairment (if any) of the right upper limb due to all causes other than dislocation of shoulder and amputations. |
|-------------------|--|

Other Impairment
Table 3.1.3



AMPUTATIONS OF FINGERS AND THUMB

| Impairment Ratings | Criteria |
|---------------------------|--|
| NIL | No amputation of fingers or thumb. |
| TWO | Amputation of little finger of one hand. |
| FIVE | Amputation of ring finger of one hand. |
| TEN | <ul style="list-style-type: none"> • Amputation of index finger of one hand • Amputation of middle finger of one hand. • Amputation of ring and little fingers of one hand. |
| FIFTEEN | <ul style="list-style-type: none"> • Amputation of index and little fingers of one hand. • Amputation of middle and little fingers of one hand. • Amputation of index and ring fingers of one hand. • Amputation of middle and ring fingers of one hand. |
| TWENTY | <ul style="list-style-type: none"> • Amputation of thumb of one hand. • Amputation of index and middle fingers of one hand • Amputation of index, ring, and little fingers of one hand. • Amputation of middle, ring, and little fingers of one hand. |
| TWENTY-FIVE | <ul style="list-style-type: none"> • Amputation of thumb and ring finger of one hand. • Amputation of thumb and little finger of one hand. • Amputation of index, middle, and ring fingers of one hand. • Amputation of index, middle, and little fingers of one hand. |
| THIRTY | <ul style="list-style-type: none"> • Amputation of thumb and index finger of one hand. • Amputation of thumb and middle finger of one hand. • Amputation of thumb, index and little fingers of one hand. • Amputation of thumb, middle and little fingers of one hand. • Amputation of thumb, ring, and little fingers of one hand. • Amputation of index, middle, ring and little finger, but not thumb, of one hand. |
| THIRTY-FIVE | <ul style="list-style-type: none"> • Amputation of thumb, index, and middle fingers of one hand. • Amputation of thumb, index and ring fingers of one hand. • Amputation of thumb, middle and ring fingers of one hand. • Amputation of thumb, index, ring, and little fingers of one hand. • Amputation of thumb, middle, ring, and little fingers of one hand. |
| FORTY | <ul style="list-style-type: none"> • Amputation of thumb, index, middle, and ring fingers of one hand. • Amputation of thumb, index, middle, and little fingers of one hand. |
| FORTY-FIVE | Amputation of index, middle, ring, and little fingers, and thumb, of one hand. |
| | <i>One rating may be given from this table for each side, as applicable.</i> |

No age adjustment permitted for this table



Other Impairment
Table 3.1.4

AMPUTATIONS OF UPPER LIMB

| Impairment Ratings | Criteria |
|---------------------------|---|
| NIL | No amputations involving the upper limb. |
| FIFTY | <ul style="list-style-type: none"> • Mid-carpal amputation of one hand. • Mid-metacarpal amputation of one hand. • Disarticulation at wrist joint. • Amputation of forearm distal to biceps tendon insertion. |
| SIXTY | <ul style="list-style-type: none"> • Amputation of forearm proximal to biceps tendon insertion. • Disarticulation at elbow. • Amputation between deltoid insertion and elbow. • Amputation above deltoid insertion. • Disarticulation at shoulder. |
| SEVENTY | Forequarter amputation. |
| | <i>One rating may be given from this table for each upper limb, as applicable.</i> |

No age adjustment permitted for this table



Other Impairment
Table 3.1.5

DISLOCATION OF SHOULDER

| Impairment Ratings | Criteria |
|---------------------------|--|
| NIL | <ul style="list-style-type: none"> • No recurrent dislocation of shoulder. • Dislocation of shoulder on a single occasion. |
| TWO | Recurrent dislocation of shoulder surgically corrected. |
| FIVE | Recurrent dislocation of shoulder not surgically corrected. |
| TEN | Dislocation of shoulder resulting in prophylactic restriction of movement. |
| | <i>Only one rating is to be selected from this table for each shoulder.</i> |

No age adjustment permitted for this table

| | |
|-------------------|--|
| Substep 8B | Compare the apportioned functional impairment rating corresponding to the impairment due to amputations affecting the right upper limb (obtained in substep 8A) <i>with</i> the Other Impairment rating from either Table 3.1.3 or Table 3.1.4 (obtained in Step 7). The higher of these two ratings is to be selected. |
| Substep 8C | Compare the apportioned functional impairment rating corresponding to the impairment due to dislocations of the right shoulder (obtained in substep 8A) <i>with</i> the Other Impairment rating from Table 3.1.5 (obtained in Step 7). The higher of these two ratings is to be selected. |
| Substep 8D | <p>The veteran's accepted right upper limb condition(s) will receive (up to) three impairment ratings:</p> <ul style="list-style-type: none"> • The functional impairment rating corresponding to the impairment of the right upper limb due to all causes other than amputations and dislocation of shoulder (if such a rating is obtained in substep 8A); • The impairment rating obtained in substep 8B; and • The impairment rating obtained in substep 8C. <p>These ratings are not to be combined at this stage but are to be included in the final combining of all ratings.</p> |

Examples

Example 1

A veteran has an amputation of the right thumb as the only accepted disability of the right upper limb.

By following steps 1 to 7 inclusive, a rating will have been selected

from Table 3.1.2:

probably 20 to 40 impairment points (depending on the severity of the effect on the hand)

from Table 3.1.3:

20 impairment points.

These two ratings are compared and the veteran receives the higher as the final impairment rating for the right upper limb.

Example 2

A veteran has an amputation of his right thumb and dislocation of the right shoulder as the only accepted conditions of the right upper limb.

By following steps 1 to 7 inclusive, a rating will have been selected

from Table 3.1.2:

say, 40 impairment points (the veteran can use the right upper limb reasonably well in a few circumstances only)

from Table 3.1.3:
20 impairment points; and

from Table 3.1.5:
10 impairment points.

Medical evidence shows that the incapacity of the veteran's right upper limb is due 80% to the shoulder condition and 20% to the amputated thumb. Apportioning the 40 impairment points in the ratio of 4:1, 34 points are obtained for the shoulder, and 9 points for the thumb (Table 20.1).

After comparing the apportioned functional impairment rating of 34 for the right shoulder with the Other Impairment rating of 10 from Table 3.1.5, the veteran gets 34 points for the shoulder. After comparing the apportioned functional impairment rating of 9 for the amputated right thumb with the Other Impairment rating of 20 from Table 3.1.3, the veteran gets 20 points for the amputation of the right thumb.

In this case the final impairment ratings for the right upper limb are 34 points and 20 points. These are to be included in the final combining of all ratings.

An Upper Limb Worksheet is provided on page 70.

A separate Upper Limb Worksheet is to be used for each upper limb. If, for either upper limb, two Other Impairment ratings are applicable the Functional Impairment rating (E) is to be compared with the Other Impairment ratings in accordance with Step 8.

PART 3.2: LOWER LIMBS

Because the two lower limbs constitute a functional unit, a single functional impairment rating is calculated for both lower limbs together.

Calculation of the impairment rating for conditions of the lower limbs

Follow the steps below to calculate the impairment rating due to accepted conditions of the lower limbs:

(Each step is elaborated in the following pages.)

| | | |
|---------------|---|---------|
| STEP 1 | Establish which joints in the lower limbs, if any, have some restriction of movement as a result of accepted conditions affecting the lower limbs. | Page 50 |
| STEP 2 | <i>(Omit this step if there is no restriction of joint movement in the limbs.)</i> Calculate the functional impairment due to restriction of the range of movement of joints in the lower limbs as a result of accepted conditions of the lower limbs. | Page 51 |
| STEP 3 | Make any applicable age adjustment to the final functional impairment rating for the limbs by applying Table 3.6.1 in Part 3.6 of this chapter. | Page 53 |
| STEP 4 | Calculate the functional impairment rating for the lower limbs as a whole by applying Table 3.2.2. | Page 54 |
| STEP 5 | Compare the functional impairment rating for the lower limbs as a whole with the functional impairment rating due to any restricted range of movement. Take the higher of these two ratings as the final functional impairment rating for the limb. | Page 56 |
| STEP 6 | Determine if any Other Impairment rating applies to the lower limbs. | Page 56 |
| STEP 7 | <i>(Omit this step if no Other Impairment rating applies to the limbs.)</i> Compare the final functional impairment rating for the limbs with any Other Impairment rating applicable to the limbs. Take the higher of these ratings. | Page 56 |

Step 1: Establish which joints in the lower limbs, if any, have some restriction of movement as a result of accepted conditions affecting the lower limbs.

For the purposes of assessment under this *Guide*, the major joints of the lower limbs are the hip, the knee and the ankle.

In addition, the joints of the toes are also to be considered. However, only one rating is to be given for the total effect of restrictions in all joints of the toes of one foot considered together.

Conditions such as chondromalacia patellae and torn medial meniscus may affect the range of movement of the knee. A condition such as fractured neck of femur will be likely to affect the range of movement of the hip. In cases of a fracture, the ranges of movements of the joints both proximal to and distal to the fracture site should generally be considered as joints the range of movement of which may be affected. The closer a fracture site is to a joint, the more likely it is that it will have some effect on the range of movement of that joint.

Hence, it must be determined which, if any, of both right and left:

- hip;
- knee;
- ankle; and
- toes;

potentially have loss of range of movement due to accepted conditions.

Certain vascular conditions or neurological conditions of the lower limb, such as muscle weakness, tremor, apraxia, or loss of co-ordination may have an effect on the function of the lower limb without restricting the range of movement of any joint of the limbs. The assessment of such conditions is made under Step 4 of this Part.

Step 2: Calculate the functional impairment due to restriction of the range of movement of joints in the lower limbs as a result of accepted conditions of the lower limbs.

Single functional impairment ratings may be obtained for each of the following eight joints or sets of joints based on restriction of range of movement due to accepted conditions:

- Right hip;
- Right knee;
- Right ankle;
- Right toes;
- Left hip;
- Left knee;
- Left ankle; and
- Left toes.

These impairment ratings are obtained by applying Table 3.2.1. Such functional impairment ratings are referred to as the functional impairment rating of the relevant lower limbs based on restriction or range of movement of the right or left hip, knee, ankle, or toes respectively.

The loss of range of movement is to be estimated to the nearest quarter of the normal range of movement.

The range of movement relevant to assessment under this *Guide* is the active range of movement of the joint, that is the range through which the veteran can move the joint by virtue only of those muscles whose normal function it is to do so. The ability of a veteran to flex a joint by use of other, non-affected body parts does not reduce the rating which the impaired joint attracts. (For example, if a veteran cannot flex the right knee in the normal fashion, by use of the hamstring muscles, but can use a hand to bend the right knee, the right knee should be assessed as having “loss of almost all movement”.)

“Unfavourable position” and “position of function” and “flail joint” are defined at page 41.

The loss of range of movement will usually be provided as a fractional loss of range of movement and such data can be related directly to items within Table 3.2.1. However, sometimes, the measured movements of an affected joint will be available in degrees. In such a case the measured movement is to be compared with the average range of movement of a normal joint to obtain the fractional loss of range of movement.

The average ranges of movement of various normal joints of the lower limbs may be obtained from Table 3.5.1 in Part 3.5 of this Chapter. These values are to be used in arriving at the fractional loss of range of movement when the movements of a joint are known in degrees.

If non-accepted conditions contribute to the loss of range of movement, Chapter 19 (Partially Contributing Impairment) is to be used in conjunction with Table 3.2.1.

If various impairment ratings have been obtained for lower limb joints, and Chapter 19 has been applied to them, take the highest resultant rating. This is the final functional impairment rating for the lower limbs based on loss of range of movement. If Chapter 19 did not have to be applied, then take the highest of the various impairment ratings that have been obtained for each lower limb joint. In that case, this is the final functional impairment rating for the lower limbs.

Functional Loss
Table 3.2.1



LOSS OF MUSCULOSKELETAL FUNCTION: LOWER LIMB JOINTS

| Impairment Ratings | Hip | Knee | Ankle | Toes |
|---|---|---|---|--|
| NIL | X-ray changes only with normal range of movement. | X-ray changes only with normal range of movement. | X-ray changes only with normal range of movement. | Incomplete loss of range of movement of any toe. |
| TWO | | | | Ankylosis of any toe other than hallux. |
| FIVE | | | Loss of about one-quarter normal range of movement. | Hallux: ankylosis in favourable position of either interphalangeal joint; or metatarsophalangeal joint. |
| TEN | Loss of about one-quarter normal range of movement. | Loss of about one-quarter normal range of movement. | Loss of about one-half normal range of movement. | Hallux: ankylosis in an unfavourable position of either interphalangeal joint and/or metatarso-phalangeal joint. |
| FIFTEEN | | | Loss of about three-quarters normal range of movement. | |
| TWENTY | Loss of about one-half normal range of movement. | Loss of about one-half normal range of movement. | Loss of almost all movement, or complete ankylosis in position of function. | |
| THIRTY | Loss of about three-quarters normal range of movement. | Loss of about three-quarters normal range of movement. | Ankylosis in an unfavourable position, or a flail joint. | |
| FOURTY | Loss of almost all movement, or complete ankylosis in position of function. | Loss of almost all movement, or complete ankylosis in position of function. | | |
| FIFTY | Ankylosis in an unfavourable position, or a flail joint. | Ankylosis in an unfavourable position, or a flail joint. | | |
| <i>Only one rating is to be selected from this table for each hip, knee, or ankle; and only one rating is to be selected from this table for the toes of each foot. Of these ratings only the highest is to be taken.</i> | | | | |

Ratings from this table are age adjusted (see Table 3.6.1)

Step 3: Make any applicable age adjustment to the functional impairment rating for the lower limbs based on loss of range of movement by applying Table 3.6.1 in Part 3.6 of this chapter.

The functional impairment rating based on loss of range of movement obtained in Step 2 is to be age adjusted using Table 3.6.1.

For veterans aged 46 to 55 years at the relevant time, age adjustment will not result in any change of the impairment rating. For veterans aged 56 years and older at the relevant time, the impairment rating will be reduced by an amount dependent upon their age. For veterans aged 45 years or less at the relevant time, the impairment rating will be increased by an amount dependent upon their age.

Total loss of function of each lower limb is considered to be 50 per cent impairment of the whole person. Amputation of a lower limb at the hip joint, or total loss of the use of a lower limb is equivalent to 50 impairment points.

With the exception of a hindquarter amputation, no condition or combination of conditions causing impairment in a lower limb shall receive an impairment rating exceeding 50 points.

In the case of a veteran aged 45 years or less, if the application of age adjustment to the functional impairment rating results in an impairment rating higher than 50 impairment points, the functional impairment rating for that lower limb is to be taken as 50 impairment points and not as the higher rating obtained by applying Table 3.6.1.

Step 4: Calculate the functional impairment rating for the lower limbs as a whole by applying Table 3.2.2.

Table 3.2.2 measures the loss of function relating to the two lower limbs together. Only one rating is to be given from this table for any condition or combination of conditions. To attract a particular rating, the degree of impairment must be greater than that described at all lower levels.

Impairment ratings derived from Table 3.2.2 are *not* to be age adjusted by applying Table 3.6.1. The reason is that many of the criteria within the table are age-dependent: they compare veterans with others of the same age.

Table 3.2.2 is the only relevant table if the use of lower limbs is restricted by vascular conditions or neurological conditions, such as muscle weakness, tremor, apraxia, loss of co-ordination, fatigue or pain, and when no condition affecting the range of movement of a joint is present.

If non-accepted conditions contribute to the loss of function, Chapter 19 (Partially Contributing Impairment) is to be applied in conjunction with Table 3.2.2.



Functional Loss

Table 3.2.2

LOSS OF MUSCULOSKELETAL FUNCTION: LOWER LIMBS (BASED ON USE OF BOTH LOWER LIMBS TOGETHER)

| Impairment Ratings | Criteria |
|--|--|
| NIL | <ul style="list-style-type: none"> • Walks in a manner normal for age on a variety of different terrains and at varying speeds. • Sciatic pain — occasional twinges but no effect on walking most of the time. |
| FIVE | <ul style="list-style-type: none"> • Walks with intermittent difficulty, such as locking or giving way, without falling. Caution needed on steps and uneven ground, or when running. • Has intermittent pain from weight-bearing, ie, not all the time, or only after weight-bearing for some time. • Sciatic pain occurring frequently: present some of the time when walking. |
| TEN | <ul style="list-style-type: none"> • Walks at normal pace on level ground, but has constant difficulty up and down steps and over uneven ground. Need for a walking stick may be manifested: <ul style="list-style-type: none"> – Pain and/or slowness; or – constant pain from weight-bearing. • Pain restricts walking to 500 m or less, at a slow to moderate pace (4 km/h). Can walk further after resting. • Sciatic pain daily — present most of the time during walking. |
| TWENTY | <ul style="list-style-type: none"> • Walks at moderately reduced pace in comparison with peers on flat ground; <i>and is unable to</i> <ul style="list-style-type: none"> – manage stairs or ramps without rails; or – rise from the sitting position without the assistance of one hand. • Pain restricts walking (4 km/h) to 250 m or less at a time. Can walk further after resting. |
| THIRTY | <ul style="list-style-type: none"> • Walks at significantly reduced pace in comparison with peers <i>and</i>: <ul style="list-style-type: none"> – legs give way frequently, resulting in falls. Can walk more efficiently with a brace or an artificial limb; or – is unable to negotiate stairs without personal assistance; or – is unable to rise to standing position without the assistance of both hands. • Pain restricts walking (4 km/h) to 100 m or less at a time. Can walk further after resting. |
| FORTY | <ul style="list-style-type: none"> • Walks at greatly reduced pace in comparison with peers, is unable to negotiate kerbs, gutters or uneven ground, <i>and</i> <ul style="list-style-type: none"> – is restricted to walking in home and around block. Probably needs a walking aid; or – finds transfer difficult without personal assistance. • Pain restricts walking (4 km/h) to 50 m or less at a time. Can walk further after resting. |
| FIFTY | Restricted to walking in and around home; <i>and</i> <ul style="list-style-type: none"> – requires quad stick, crutches or similar walking aid; – is unable to transfer without personal assistance. |
| SIXTY | Restricted to walking in and around home. Can walk only with personal assistance, or with a walking aid such as a pickup frame. |
| SEVENTY | Unable to walk or stand. Mobile only in a wheelchair. |
| <p><i>Only one rating is to be selected from this table for any condition or combination of conditions.</i></p> | |

No age adjustment permitted for this table

For the purposes of Table 3.2.2 “transfer” means:

- a move from one seat to another;
- a move from sitting to standing;
- a move on and off the toilet; or
- a move in and out of bed.

Step 5: Compare the functional impairment rating for the lower limbs as a whole with the functional impairment rating due to any restricted range of movement. Take the higher of these two ratings as the final functional impairment rating for the limbs.

After applying Chapter 19 (Partially Contributing Impairment) in Step 4, the functional impairment rating from loss of range of movement is to be compared with the functional impairment for the use of the limbs as whole.

The higher of these two ratings is the final functional impairment rating for the limbs.

Step 6: Determine if any Other Impairment rating applies to the lower limbs.

There are two Other Impairment tables relating to the lower limbs:

Table 3.2.3 — Amputations of Lower Limbs; and

Table 3.2.4 — Lower Limbs - Joint Replacements.

Step 7: Compare the final functional impairment rating for the lower limbs with any Other Impairment rating applicable to the lower limbs. Take the higher of these.

| | |
|-------------------|---|
| Substep 7A | When the only Other Impairment rating relates to amputations. The final functional impairment rating of the lower limbs (obtained in Step 5) is to be compared with the Other Impairment rating or ratings from Table 3.2.3. The higher of the two ratings is then taken as the total final impairment rating for the lower limbs. |
|-------------------|---|



Other Impairment
Table 3.2.3

AMPUTATIONS OF LOWER LIMBS

| Impairment Ratings | Criteria |
|---|--|
| NIL | No amputation of any toes. |
| TWO | Amputation of single toe other than great toe. |
| FIVE | Amputation of 2 to 4 toes on foot excluding great toe. |
| TEN | <ul style="list-style-type: none"> • Amputation of great toe. • Amputation of great toe and one other toe on one foot. |
| FIFTEEN | <ul style="list-style-type: none"> • Amputation of great toe and 2 or more other toes on one foot. • Mid-metatarsal amputation. |
| TWENTY | Mid-tarsal amputation. |
| THIRTY | <ul style="list-style-type: none"> • Amputation at ankle. • Amputation below knee with functional stump. |
| FORTY | <ul style="list-style-type: none"> • Amputation above knee with functional stump. • Disarticulation at knee. • Amputation below knee with short stump (that is 7.5 cm or less below intercondylar notch). |
| FIFTY | <ul style="list-style-type: none"> • Disarticulation at hip joint. • Amputation above knee with short stump (that is 7.5 cm or less below tuber ischii). |
| SIXTY | Hemipelvectomy. |
| <i>If applicable, ratings may be given from this table for each of the lower limbs.</i> | |

No age adjustment permitted for this table



Other Impairment
Table 3.2.4

LOWER LIMBS: JOINT REPLACEMENTS AND REALIGNMENTS

| Impairment Ratings | Criteria |
|--|--|
| NIL | No joint replacement or realignment in lower limbs. |
| FIVE | Tibial osteotomy |
| TEN | <ul style="list-style-type: none"> • Total knee replacement. • Total hip replacement |
| <i>Where applicable, up to four ratings may be made from this table — one rating for each knee and one for each hip.</i> | |

No age adjustment permitted for this table

Example:

A veteran has an amputation of his right foot as the only accepted condition of his lower limbs which upon investigation is found to fit the description of “amputation below knee with functional stump”.

By following steps 1 to 6 inclusive, a rating will have been selected:

from Table 3.2.2:

probably 10 to 30 impairment points (depending on the severity of the effect of the amputation on the particular veteran);

from Table 3.2.3:

30 impairment points.

These two ratings are to be compared and the veteran receives the higher as the total final impairment rating for his amputation of right foot.

If multiple accepted conditions are responsible for the impairment of the lower limbs, the situation will be more complicated and may require applying Chapter 20 (Apportionment).

In some cases, two other impairment ratings are to be given. In such cases, the functional impairment for the limbs should be apportioned into three parts:

- one part corresponding to the impairment due to any amputation of the right leg;
- one part corresponding to the impairment due to any amputation of the left leg; and
- one part corresponding to all other causes.

| | |
|-------------------|---|
| Substep 7B | <p>When the only Other Impairment rating relates to joint replacements and realignments.</p> <p>Ratings from Table 3.2.4 are to be given only if both the following conditions apply:</p> <ul style="list-style-type: none">• the predominant cause of loss of lower limb function is a vascular condition (such as peripheral vascular disease); and• the rating obtained from Table 3.2.2 is higher than the highest rating obtained from Table 3.2.1. <p>Other Impairment rating or ratings from Table 3.2.4 are to be included in the final combining of all impairment ratings. Unlike Other Impairment ratings from most other tables, ratings from Table 3.2.4 are not to be compared with a functional impairment rating.</p> |
|-------------------|---|

Example:

A veteran has osteoarthritis of both knees as an accepted condition and has had bilateral knee replacements resulting in reasonably good function. The veteran also has peripheral vascular disease as an accepted condition which limits walking distance to about 200 metres.

By following steps 1 to 6 inclusive, a rating will have been selected:

from Table 3.2.2:

20 impairment points; and


two ratings will have been selected from Table 3.2.4:

10 impairment points for the right knee replacement; and

10 impairment points for the left knee replacement.

The veteran receives all three impairment ratings. The three ratings are to be included in the final combining of all impairment ratings.

The following conditions, whether alone or in combination, are to be assessed by applying Table 3.2.5 if they have no effect on lower limb function. If these conditions have an effect on lower limb function they are to be assessed by applying Table 3.2.2.

| Other Impairment Table 3.2.5  | |
|---|--|
| MINOR DISORDERS OF THE LOWER LIMBS | |
| Impairment Ratings | Criteria |
| NIL | <ul style="list-style-type: none"> • Pes planus with no symptoms. • Hammer toes with no symptoms. • Claw toes with no symptoms. • Hallux valgus with no symptoms. • Calcaneal spurs with no symptoms. • Genu varum with no symptoms. • Genu valgum with no symptoms. |
| TWO | <ul style="list-style-type: none"> • Pes planus with minor symptoms. • Hammer toes with minor symptoms. • Claw toes with minor symptoms. • Hallux valgus with minor symptoms. • Calcaneal spurs with minor symptoms. • Genu varum with minor symptoms. • Genu valgum with minor symptoms. |
| <i>Where applicable a rating is to be selected from this table for each condition.</i> | |

No age adjustment permitted for this table

A Lower Limbs Worksheet is provided on page 69.

A single Lower Limbs Worksheet is to be used for both lower limbs together. The Lower Limbs Worksheet is designed to facilitate calculation of the functional impairment of the lower limbs. That functional impairment is to be compared with any Other Impairment ratings in accordance with this *Guide*.

PART 3.3: SPINE

Part 3.3 of Chapter 3 is to be applied in assessing impairment of the spinal column, not of the spinal cord. Impairments of the spinal cord are to be assessed by applying Chapter 5 of this *Guide*.

For the purposes of assessment under Part 3.3 the spine consists of two parts — the cervical spine and the thoraco-lumbar spine — each of which is to be given a separate impairment rating if appropriate.

Determination of the impairment rating for conditions of the spine.

Follow the steps below to determine the impairment rating from accepted conditions affecting the function of the spine. Because the cervical spine and the thoraco-lumbar spine are each to be separately assessed, this set of steps is to be followed twice (if applicable): once for the cervical spine and once for the thoraco-lumbar spine.

(Each step is elaborated in the following pages.)

| | | |
|---------------|---|---------|
| STEP 1 | Calculate the functional impairment due to restriction of range of movement of the spine as a result of accepted conditions. | Page 60 |
| STEP 2 | <i>(Omit this step if you are not assessing an impairment of the thoraco-lumbar spine.)</i> Determine the impairment rating applicable to the thoraco-lumbar spine by applying Table 3.3.2. | Page 61 |
| STEP 3 | <i>(Omit this step if you are not assessing an impairment of the thoraco-lumbar spine.)</i> Compare the rating obtained in Step 1 in respect of impairment of the thoraco-lumbar spine with the rating obtained in Step 2. Take the higher rating. | Page 63 |
| STEP 4 | Make any applicable age adjustment to the functional impairment rating for the spine by applying Table 3.6.1. | Page 63 |
| STEP 5 | Determine if any Other Impairment rating applies to the spine. | Page 63 |
| STEP 6 | Compare the impairment rating obtained in Step 4 with the impairment rating obtained in Step 5. Take the higher rating. | Page 64 |

Step 1: Calculate the functional impairment due to restriction of range of movement of the spine as a result of accepted conditions.

Table 3.3.1 is to be applied to rate spinal function. It is based on range of movement of the spine. Two ratings may be given from this table — one for the cervical spine and one for the thoraco-lumbar spine. Only one rating is to be given for the cervical spine for any condition or combination of conditions which contribute to the loss of range of movement of the cervical spine. Only one rating is to be given for the

thoraco-lumbar spine for any condition or combination of conditions that contribute to the loss of range of movement of the thoraco-lumbar spine.

It is not practicable to measure range of movement of the thoracic spine independently of that of the lumbar spine. If only the thoracic spine is to be rated, all movements are to be measured, but emphasis is given to rotation. If only the lumbar spine is to be rated, all movements are to be measured, but emphasis is given to forward flexion. However, even if conditions of both the thoracic and lumbar spine are to be assessed, only one rating is to be made from the thoraco-lumbar spine column of Table 3.3.1.

The loss of range of movement should be estimated to the nearest quarter of the normal range of movement.

The loss of range of movement will usually be provided as a fractional loss of range of movement and such data can be used directly in Table 3.3.1. However, sometimes, the measured movements of the affected part of the spine will be available in degrees. In such a case the measured movement is to be compared with the average range of movement of the normal spine to obtain the fractional loss of range of movement.

The average ranges of movement of the normal spine may be obtained from Table 3.5.1 in Part 3.5. These values are to be used in arriving at the fractional loss of range of movement when the actual movements of the spine are known in degrees.

If a functional impairment rating obtained from Table 3.3.1 has been contributed to by any non-accepted conditions, then that rating is to be moderated by applying Chapter 19 (Partially Contributing Impairment).

Step 2: (Omit this step if you are not assessing an impairment of the thoraco-lumbar spine.) Determine the impairment rating applicable to the thoraco-lumbar spine by applying Table 3.3.2.

Table 3.3.2 is to be applied to assess functional loss of the thoraco-lumbar spine that is not adequately measured by loss of range of movement. Ratings obtained from Table 3.3.2 are not to be combined with any ratings obtained from Table 3.3.1 *in respect of the thoraco-lumbar spine*. Ratings obtained from Table 3.3.2 are compared with ratings obtained from Table 3.3.1 in respect of the thoraco-lumbar spine in Step 3.

If a functional impairment rating obtained from Table 3.3.2 has been contributed to by any non-accepted conditions, then that rating is to be moderated by applying Chapter 19 (Partially Contributing Impairment).

Functional Loss
Table 3.3.1



LOSS OF MUSCULOSKELETAL FUNCTION: SPINAL MOVEMENT

| Impairment Ratings | Criteria | |
|--------------------|--|---|
| | Cervical spine | Thoraco-lumbar spine |
| NIL | X-ray changes only. Normal or nearly normal range of movement. | X-ray changes only. Normal or nearly normal range of movement. |
| FIVE | Loss of about one-quarter of normal range of movement. | |
| TEN | Loss of about half of normal range of movement | Loss of about one-quarter normal range of movement. |
| FIFTEEN | Loss of about three-quarters of normal range of movement. | |
| TWENTY | Loss of almost all movement, or complete ankylosis in position of function | Loss of about half of normal range of movement. |
| THIRTY | Ankylosis in an unfavourable position. | Loss of about three-quarters of normal range of movement. |
| FORTY | | Loss of almost all movement, or complete ankylosis in position of function. |
| FIFTY | | Ankylosis in an unfavourable position, or unstable joint. |
| | <i>Where applicable, two ratings are to be selected from this table — one for the cervical spine and one for the thoraco-lumbar spine.</i> | |

Ratings from this table are age adjusted (see Table 3.6.1)



Functional Loss
Table 3.3.2

**LOSS OF MUSCULOSKELETAL FUNCTION:
THORACO-LUMBAR SPINE (BASED ON USE OF SPINE)**

| Impairment Ratings | Criteria |
|---------------------------|---|
| NIL | Thoraco-lumbar spine condition causes no difficulty in sitting or standing or other normal activities. |
| TWO | Thoraco-lumbar spine condition causes occasional difficulties in prolonged sitting or standing. |
| FIVE | Thoraco-lumbar spine condition causes difficulties in sitting or standing that generally result in pain or undue fatigue by the end of the day. |
| TEN | Thoraco-lumbar spine condition generally causes pain or undue fatigue within half an hour, and so requires frequent changes of posture. |
| FIFTEEN | Thoraco-lumbar spine condition generally causes pain or undue fatigue within five minutes, and so requires very frequent changes of posture. |
| | <i>One rating may be selected from this table in respect of the thoraco-lumbar spine. No rating is to be selected from this table in respect of the cervical spine.</i> |

Ratings from this table are age adjusted (see Table 3.6.1)

Step 3: *(Omit this step if you are not assessing an impairment of the thoraco-lumbar spine.)*
Compare the rating obtained in Step 1 in respect of impairment of the thoraco-lumbar spine with the rating obtained in Step 2. Take the higher rating.

Step 4: **Make any applicable age adjustment to the functional impairment rating for the spine by applying Table 3.6.1.**

The functional impairment rating obtained in Step 4 is to be age adjusted by applying Table 3.6.1. Unlike the situation which applies to the upper and lower limbs there is no maximum value of the impairment rating of the spine. Hence whatever the rating obtained by application of Table 3.6.1 is the rating to be given. (The reason is that the maximum rating for limbs is determined by reference to the rating given for amputation of the limb, but there is no such thing as amputation of the spine.)

Step 5: **Determine if any Other Impairment rating applies to the spine.**

The Other Impairment ratings of the spine are those due to crush fractures of the vertebrae.



Other Impairment
Table 3.3.3

CRUSH FRACTURES OF THE VERTEBRAE

| Impairment Ratings | Criteria |
|---------------------------|--|
| NIL | No fracture of the vertebrae. |
| TWO | Crush fracture with minor compression (less than 25%) only. |
| FIVE | Crush fracture of one vertebra (compression of 25%-50%). |
| TEN | <ul style="list-style-type: none"> • Crush fracture of a single vertebra with more than 50% compression. • Crush fracture of two or more vertebrae with more than 25% compression of each. |
| | <i>Where applicable, two ratings are to be selected from this table — one for the cervical spine and one for the thoraco-lumbar spine.</i> |

No age adjustment permitted for this table

Step 6: Compare the impairment rating obtained in Step 4 with the impairment rating obtained in Step 5. Take the higher rating.

After applying Chapter 19 (Partially Contributing Impairment), the functional impairment rating due to loss of range of movement of the spine is to be compared with the functional impairment due to any crush fractures.

The higher of these two ratings is the final functional impairment rating for the cervical or thoraco-lumbar spine, as the case may be.

The assessment of other effects of spinal conditions.

If a spinal condition causes an effect on limb function, then that effect on limb function is also to be assessed under Parts 3.1 or 3.2 of this chapter (together with the effect of any other accepted conditions contributing to loss of function of the same limb); and if a spinal condition causes a sensory loss, then that sensory loss is also to be assessed under Table 5.4 (together with the effect of any other accepted conditions contributing to that sensory loss).

For example, if a spinal condition which causes a reduced range of spinal movement also interferes with the proper function of the limbs, then a rating from Table 3.3.1 may be combined with a rating from Table 3.1.2 or 3.2.2.


A Cervical Spine Worksheet is provided at page 71.

A Thoraco-Lumbar Spine Worksheet is provided at page 72.

PART 3.4: RESTING JOINT PAIN

An additional rating is to be given from Table 3.4.1 for certain joint pain. This table is to be applied only for frequent joint pain that continues to affect a joint when the joint is no longer in use: for example, pain in the knees continuing for a significant period after ceasing walking and standing, or pain in the shoulders persisting for a significant period after ceasing some task such as hanging out the washing. Pain that limits range of movement or distance that can be walked is already assessed elsewhere (Tables 3.2.1 and 3.2.2).

Table 3.4.1 may be applied for pain in both the upper limbs and lower limbs and intervertebral joints. Only one selection may be made from this table for pain in any joint or combination of joints. However, the table is not to be applied to rate sciatic pain. Sciatic pain is to be rated by applying Table 3.2.2.

| Other Impairment Table 3.4.1  | |
|---|---|
| RESTING JOINT PAIN | |
| Impairment Ratings | Criteria |
| NIL | Pain in any joint, or combination of joints, that is not usually present at rest. |
| TWO | <ul style="list-style-type: none"> • Pain in any joint, or combination of joints, that is often present at rest but which is mild. • Pain in the back that limits comfortable sitting to less than 30 minutes at a time. |
| FIVE | <ul style="list-style-type: none"> • Pain in any joint, or combination of joints, that is often present at rest but which improves after several hours rest or responds to medication or to therapeutic measures. • Pain in the back that limits comfortable sitting to less than 10 minutes at a time. |
| TEN | Severe pain in any joint, or combination of joints, that is often present at rest but which does not respond adequately to medication or to therapeutic measures. |
| FIFTEEN | Severe pain in any joint, or combination of joints, that is always present at rest but which does not respond adequately to medication or to therapeutic measures and which regularly interferes with sleep. |
| | <i>Only one selection is to be made from this table for pain in any joint or combination of joints.</i> |

No age adjustment permitted for this table


PART 3.5: RANGES OF JOINT MOVEMENT

Table 3.5.1 is a table of “average” or “normal” values. It is to be used to assist in the estimation of loss of range of joint movement. Range of movement is usually measured by simple visual assessment, and is based on active joint movement. Because estimates of range of movement are required only to the nearest quarter of normal full range of movement, the use of a goniometer is not essential.

A global assessment is based on the measurement and averaging of movements in all planes. Functionally more important planes of movement (Table 3.5.1) are given more emphasis in this assessment. The total loss of range of movement should be estimated to the nearest quarter of the normal range of movement.

Estimates of range of movement may be made using the joint on the opposite side for comparison, provided that the opposite side is not affected by injury or disease. If both sides are affected the accepted normal range of movement given in Table 3.5.1 can be used as a reference.


The angles in brackets represent the position of function. This information is required when considering whether an ankylosis is in a favourable position or not.

| Procedural Table 3.5.1 | |  | |
|---|---|--|--------------------------|
| AVERAGE RANGES OF JOINT MOVEMENTS | | | |
| Joint | Average Range of Joint Movement (degrees) | | |
| Shoulder | Abduction (45°) * | 150° | Adduction 30° |
| | Forward elevation (30°) * | 150° | Backward 40° |
| | External Rotation (20°) * | 90° | Internal 40° |
| Elbow | Flexion (100°) * | 150° | Extension 0° |
| | Supination (0°) | 80° | Pronation 80° |
| Wrist | Dorsiflexion (30°) * | 60° | Palmar Flexion • 70° |
| | Ulnar Deviation (0°) | 30° | Radial 20° |
| Hip | Flexion (25°) | 100° | Extension 30° |
| | Abduction (0°) * | 40° | Adduction 20° |
| | Internal Rotation (0°) * | 40° | External 50° |
| Knee | Flexion (10°) * | 150° | Extension 0° |
| Ankle | Dorsiflexion (0°) * | 20° | Plantar Flexion • 40° |
| | Inversion (0°) | 30° | Eversion 20° |
| Cervical | Flexion (0°) * | 45° | Extension • 45° |
| Spine | Right Lateral Flexion (0°) | 45° | Left Lateral Flexion 45° |
| | Right Rotation (0°) * | 80° | Left Rotation • 80° |
| Thoraco- Lumbar Spine | Flexion (0°) * | 90° | Extension 30° |
| | Right Lateral Flexion (0°) | 30° | Left Lateral Flexion 30° |
| | Right Rotation (0°) | 30° | Left Rotation 30° |
| <i>*Functionally most important movements</i> | | | |

No age adjustment permitted for this table

PART 3.6: SPINE AND LIMBS AGE ADJUSTMENT

Table 3.6.1 converts the impairment rating for the measured loss of musculoskeletal function to an age adjusted impairment rating.

| Table 3.6.1 | | | | | | | |  |
|---------------------------------------|-----------|-----------|-----------|-----------|-----------|-----------|--------------|---|
| SPINE AND LIMBS AGE ADJUSTMENT | | | | | | | | |
| Rating | Less than | Age | | | | | Greater than | |
| | 36 | 36-45 | 46-55 | 56-65 | 66-75 | 76-85 | 85 | |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | |
| 2 | 2 | 2 | 2 | 2 | 2 | 1 | 1 | |
| 3 | 4 | 3 | 3 | 3 | 2 | 2 | 2 | |
| 4 | 5 | 4 | 4 | 4 | 3 | 3 | 2 | |
| 5 | 6 | 6 | 5 | 5 | 4 | 4 | 3 | |
| 6 | 7 | 7 | 6 | 5 | 5 | 4 | 4 | |
| 7 | 8 | 8 | 7 | 6 | 6 | 5 | 4 | |
| 8 | 10 | 9 | 8 | 7 | 6 | 6 | 5 | |
| 9 | 11 | 10 | 9 | 8 | 7 | 6 | 5 | |
| 10 | 12 | 11 | 10 | 9 | 8 | 7 | 6 | |
| 11 | 13 | 12 | 11 | 10 | 9 | 8 | 7 | |
| 12 | 14 | 13 | 12 | 11 | 10 | 8 | 7 | |
| 13 | 16 | 14 | 13 | 12 | 10 | 9 | 8 | |
| 14 | 17 | 15 | 14 | 13 | 11 | 10 | 8 | |
| 15 | 18 | 17 | 15 | 14 | 12 | 11 | 9 | |
| 16 | 19 | 18 | 16 | 14 | 13 | 11 | 10 | |
| 17 | 20 | 19 | 17 | 15 | 14 | 12 | 10 | |
| 18 | 22 | 20 | 18 | 16 | 14 | 13 | 11 | |
| 19 | 23 | 21 | 19 | 17 | 15 | 13 | 11 | |
| 20 | 24 | 22 | 20 | 18 | 16 | 14 | 12 | |
| 21 | 25 | 23 | 21 | 19 | 17 | 15 | 13 | |
| 22 | 26 | 24 | 22 | 20 | 18 | 15 | 13 | |
| 23 | 28 | 25 | 23 | 21 | 18 | 16 | 14 | |
| 24 | 29 | 26 | 24 | 22 | 19 | 17 | 14 | |
| 25 | 30 | 28 | 25 | 23 | 20 | 18 | 15 | |
| 26 | 31 | 29 | 26 | 23 | 21 | 18 | 16 | |
| 27 | 32 | 30 | 27 | 24 | 22 | 19 | 16 | |
| 28 | 34 | 31 | 28 | 25 | 22 | 20 | 17 | |
| 29 | 35 | 32 | 29 | 26 | 23 | 20 | 17 | |
| 30 | 36 | 33 | 30 | 27 | 24 | 21 | 18 | |
| 31 | 37 | 34 | 31 | 28 | 25 | 22 | 19 | |
| 32 | 38 | 35 | 32 | 29 | 26 | 22 | 19 | |
| 33 | 40 | 36 | 33 | 30 | 26 | 23 | 20 | |
| 34 | 41 | 37 | 34 | 31 | 27 | 24 | 20 | |

**Table 3.6.1
(continued)**



SPINE AND LIMBS AGE ADJUSTMENT continued

| Rating | Age | | | | | | |
|-----------|--------------|-----------|-----------|-----------|-----------|-----------|-----------------|
| | Less than 36 | 36-45 | 46-55 | 56-65 | 66-75 | 76-85 | Greater than 85 |
| 35 | 42 | 39 | 35 | 32 | 28 | 25 | 21 |
| 36 | 43 | 40 | 36 | 32 | 29 | 25 | 22 |
| 37 | 44 | 41 | 37 | 33 | 30 | 26 | 22 |
| 38 | 46 | 42 | 38 | 34 | 30 | 27 | 23 |
| 39 | 47 | 43 | 39 | 35 | 31 | 27 | 23 |
| 40 | 48 | 44 | 40 | 36 | 32 | 28 | 24 |
| 41 | 49 | 45 | 41 | 37 | 33 | 29 | 25 |
| 42 | 50 | 46 | 42 | 38 | 34 | 29 | 25 |
| 43 | 52 | 47 | 43 | 39 | 34 | 30 | 26 |
| 44 | 53 | 48 | 44 | 40 | 35 | 31 | 26 |
| 45 | 54 | 50 | 45 | 41 | 36 | 32 | 27 |
| 46 | 55 | 51 | 46 | 41 | 37 | 32 | 28 |
| 47 | 56 | 52 | 47 | 42 | 38 | 33 | 28 |
| 48 | 58 | 53 | 48 | 43 | 38 | 34 | 29 |
| 49 | 59 | 54 | 49 | 44 | 39 | 34 | 29 |
| 50 | 60 | 55 | 50 | 45 | 40 | 35 | 30 |
| 51 | 61 | 56 | 51 | 46 | 41 | 36 | 31 |
| 52 | 62 | 57 | 52 | 47 | 42 | 36 | 31 |
| 53 | 64 | 58 | 53 | 48 | 42 | 37 | 32 |
| 54 | 65 | 59 | 54 | 49 | 43 | 38 | 32 |
| 55 | 66 | 61 | 55 | 50 | 44 | 39 | 33 |
| 56 | 67 | 62 | 56 | 50 | 45 | 39 | 34 |
| 57 | 68 | 63 | 57 | 51 | 46 | 40 | 34 |
| 58 | 70 | 64 | 58 | 52 | 46 | 41 | 35 |
| 59 | 71 | 65 | 59 | 53 | 47 | 41 | 35 |
| 60 | 72 | 66 | 60 | 54 | 48 | 42 | 36 |
| 61 | 73 | 67 | 61 | 55 | 49 | 43 | 37 |
| 62 | 74 | 68 | 62 | 56 | 50 | 43 | 37 |
| 63 | 76 | 69 | 63 | 57 | 50 | 44 | 38 |
| 64 | 77 | 70 | 64 | 58 | 51 | 45 | 38 |
| 65 | 78 | 72 | 65 | 59 | 52 | 46 | 39 |
| 66 | 79 | 73 | 66 | 59 | 53 | 46 | 40 |
| 67 | 80 | 74 | 67 | 60 | 54 | 47 | 40 |
| 68 | 82 | 75 | 68 | 61 | 54 | 48 | 41 |
| 69 | 83 | 76 | 69 | 62 | 55 | 48 | 41 |
| 70 | 84 | 77 | 70 | 63 | 56 | 49 | 42 |

This is a table for making age adjustment

Table 3.6.1 is to be applied only to impairment ratings derived from Tables 3.1.1, 3.1.2, 3.2.1, 3.3.1, and 3.3.2.

Table 3.6.1 is not to be applied to impairment ratings derived from Tables 3.1.3, 3.1.4, 3.2.2, 3.2.3, 3.2.4, 3.3.3, or 3.4.1.



Lower Limbs Worksheet

File No.

Veteran's given names

Veteran's surname

Conditions of lower limbs for assessment

The following entries and calculations are based on a report dated

Veteran's date of birth

| Right | ROM | Rating |
|-------|----------------------|----------------------|
| Hip | <input type="text"/> | <input type="text"/> |
| Knee | <input type="text"/> | <input type="text"/> |
| Ankle | <input type="text"/> | <input type="text"/> |
| Foot | <i>see below</i> | <input type="text"/> |
| Foot | <input type="text"/> | |

| Left | ROM | Rating |
|-------|----------------------|----------------------|
| Hip | <input type="text"/> | <input type="text"/> |
| Knee | <input type="text"/> | <input type="text"/> |
| Ankle | <input type="text"/> | <input type="text"/> |
| Foot | <i>see below</i> | <input type="text"/> |
| Foot | <input type="text"/> | |

Range of movement rating for both legs together (highest of all ratings above) = = A

Veteran's age =
(at date of report)

Rating (adjusted for age) = = B

Lower Limbs function

Comments (Criterion selected from Table 3.2.2)

Rating = C

Is the preceding impairment rating (C) wholly due to accepted disabilities?

What proportion of the preceding rating (C) is due to accepted disabilities?

What rating is attributable to accepted disabilities? = D

(Value E modified by use of Scale 19.2.)

Final Functional Impairment rating for legs (higher of B and D) = E

| Lower Limbs | Ratio | Functional Ratings | Other Ratings | Final Ratings |
|-----------------------------|-------|--------------------|---------------|---------------|
| Amputations | | | | |
| Other Accepted Disabilities | | | | |

Signature

Name

Date



Upper Limbs Worksheet

File No.

Veteran's given names

Veteran's surname

Conditions of upper limb for assessment

The following entries and calculations are based on a report dated

Veteran's date of birth

| Side being assessed | <input type="checkbox"/> Right | <input type="checkbox"/> Left | ROM | Rating |
|---------------------|---|-------------------------------|----------------------|----------------------|
| | | | | |
| Shoulder | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> |
| Elbow | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> |
| Wrist | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> |
| Hand | <i>record comments or criterion below</i> | | | <input type="text"/> |

Hand Comments/Criterion

ROM rating for upper limb = = A
(highest from column above)

Upper Limb function
Comments (Criterion selected from Table 3.1.2)

Rating = B

Is the preceding impairment rating (B) wholly due to accepted disabilities?

What proportion of the preceding rating (B) is due to accepted disabilities?

What rating is attributable to accepted disabilities?
(Value B modified by use of Scale 19.2.) = C

Functional Impairment rating for upper limb (higher of A and C) = D

Veteran's age = Rating (D) adjusted for age = = E

| | Ratio | Functional Rating | Other Rating | Final Rating |
|-----------------------------|-------|-------------------|--------------|--------------|
| Amputations | | | | |
| Dislocations | | | | |
| Other Accepted Disabilities | | | | |

Signature

Name

Date



Cervical Spine Worksheet

File No.

Veteran's given names

Veteran's surname

Conditions of cervical spine for assessment

The following entries and calculations are based on a report dated:

Veteran's date of birth:

Cervical Spine Function (Spinal Movement)

(Criterion selected from Table 3.3.1)

Loss of Range of Movement of Cervical spine =

ROM rating for cervical spine *(from Table 3.3.1)* = = A

Is the preceding impairment rating (A) wholly due to accepted disabilities?

What proportion of the preceding rating (A) is due to accepted disabilities?

What rating is attributable to accepted disabilities?
(Value A modified by use of Scale 19.2.) = B

Age Adjustment

Veteran's age =
(at date of report)

Rating (B) adjusted for age = = C

Crush fractures of the cervical vertebrae

(Criterion selected from Table 3.3.3)

Rating for crush fractures of the cervical vertebrae *(from Table 3.3.3)* = = D

Impairment rating for cervical spine (higher of F and G) = = E

Are there any effects on the cervical condition(s) on Upper Limb Function?

Are there any effects on the cervical condition(s) on Upper Limb Sensation?

Does the cervical spine condition cause neuralgia?

If any of the last three questions were answered with "yes" the appropriate sections of GARP are to be consulted and further ratings given.

| | | |
|-----------|---------------------|---------------------------|
| Signature | Name (Please print) | Date/...../..... |
|-----------|---------------------|---------------------------|



Thoraco-Lumbar Spine Worksheet

File No.

Veteran's given names

Veteran's surname

Conditions of thoraco-lumbar spine for assessment

The following entries and calculations are based on a report dated

Veteran's date of birth

Range of Movement of thoraco-lumbar spine *Criterion selected from Table 3.3.1)*

Loss of Range of Movement for thoraco-lumbar spine =

ROM rating for thoraco-lumbar spine (*from Table 3.3.1*) = = A

Is the preceding impairment rating (A) wholly due to accepted disabilities?

What proportion of the preceding rating (A) is due to accepted disabilities?

What rating is attributable to accepted disabilities? (Value A modified by use of Scale 19.2.) = B

Thoraco-lumbar spine function *(Criterion selected from Table 3.3.2)*

Rating (*from Table 3.3.2*) = C

Is the preceding impairment rating (C) wholly due to accepted disabilities?

What proportion of the preceding rating (C) is due to accepted disabilities?

What rating is attributable to accepted disabilities? (Value A modified by use of Scale 19.2.) = D

Functional impairment rating for thoraco-lumbar spine (higher of B and D) = E

Age Adjustment

Veteran's age =
(at date of report)

Rating (E) adjusted for age = = F

Crush fractures of the thoraco-lumbar spine vertebrae: *(Criterion selected from Table 3.3.3)*

Rating = G

Impairment rating for thoraco-lumbar spine (higher of F and G) = = H

Are there any effects on the thoraco-lumbar condition(s) on Lower Limb Function?

Are there any effects on the thoraco-lumbar condition(s) on Lower Limb Sensation?

Does the thoraco-lumbar spine condition cause sciatica?

If any of the last three questions were answered with "yes" the appropriate sections of GARP M are to be consulted and additional ratings given.

Signature

Name

Date