Australian Government

Military Rehabilitation and Compensation Commission

Instrument No. M9 of 2005

GUIDE TO DETERMINING IMPAIRMENT AND COMPENSATION

Definitions

(1) In this instrument:

C&T Act means the *Military Rehabilitation and Compensation (Consequential and Transitional Provisions) Act 2004*.

GARP V means the Guide to the Assessment of Rates of Veterans' Pensions, instrument No.9 of 1997 determined on 30 September 1997 by the Repatriation Commission under section 29 of the VEA and approved by the Minister for Veterans' Affairs on 1 October 1997.

MRCA means the *Military Rehabilitation and Compensation Act 2004*.

MRCC means the Military Rehabilitation and Compensation Commission.

SRCA means the *Safety, Rehabilitation and Compensation Act 1988*.

VEA means the *Veterans' Entitlements Act 1986*.

Revocation of MRCA Instrument No. 1 of 2004

(2) The Military Rehabilitation and Compensation Commission, under section 67(3) of the MRCA, repeals the Guide to Determining Impairment and Compensation determined by it under 67(1) of the MRCA by instrument No. 1 of 2004 dated 21 June 2004.

Guide determination

(3) For the purposes of section 67 of the MRCA, it is determined by the Military Rehabilitation and Compensation Commission that the following Guide to Impairment and Compensation (comprising pages i to iv for the Introduction and pages 1 to 232 for the remainder of the Guiide) applies as the guide for the determination of the

degree of impairment and lifestyle ratings when determining the compensation payable to a person under the MRCA.

Short title

(4) The short title for the Guide is “GARP M”.

Commencement

(5) This instrument commences on 1 July 2005.

Power under C&T Act

(6) Subsection 13(4) of the C&T Act provides that the MRCC may include in the guide under section 67 of the MRCA one or more methods of determining working out the amount of compensation a person is entitled to under Part 2 of Chapter 4 of the MRCA for a service injury or disease where a person also has:

(a) a separate war-caused or defence-caused injury or disease (within the meaning of the VEA); or

(b) a separate injury or disease (within the meaning of the SRCA).

A method may (but does not have to) include a method of offsetting payments made to the person under the VEA or SRCA in respect of the old injury or disease.

Dated this …26th…… day of May 2005

MARK SULLIVAN CHAIR ……..

IAN CAMPBELL MEMBER ……..

SIMON HARRINGTON MEMBER ……..

Federal Register of Legislative Instruments F2005L01293

BRIAN ADAMS	MEMBER	……
BARBARA BENNETT	MEMBER	……..

GUIDE TO DETERMINING IMPAIRMENT AND COMPENSATION (GARP M)

INTRODUCTION

Purpose

This Guide is to be applied to assess the degree of impairment from service injury or disease. Its provisions are binding on the Military Rehabilitation and Compensation Commission, the Veterans' Review Board, and the Administrative Appeals Tribunal.

Legal background

The *Military Rehabilitation and Compensation Act 2004* provides for periodic payments to be made to members for impairment resulting from service injuries or diseases as defined in section 5 of the Act.

Part 2 of Chapter 4 of the Act provides that periodic payments are payable only if certain thresholds are reached as determined by reference to the extent of the veteran's incapacity as assessed in accordance with this Guide. Subsection 67(1) of the Act provides that the Guide prepared by the Military Rehabilitation and Compensation Commission sets out:

(a) criteria to be used in deciding the degree of impairment of a person resulting from a service injury or disease; and

(b) methods by which the degree of that impairment can be expressed in impairment points on a scale from 0 to 100; and

(c) criteria to be used in assessing the effect of a service injury or disease on a person's lifestyle; and

(d) methods by which the effect of a service injury or disease on a person's lifestyle can be expressed as a numerical rating; and

(e) methods by which the impairment points of a person, and the effect on a person's lifestyle, from a service injury or disease can be used to determine the compensation payable to the person under this Part by reference to the maximum compensation that can be payable to a person under this Part.

In addition the Guide, in accordance with subsection 67(2) of the Act

(a) specifies different methods under paragraph (1)(e) for:

(i) service injuries or diseases that relate to warlike service or non-warlike service; and

(ii) other service injuries or diseases; and

(b) specifies a method for determining the compensation payable to a person who has both:

(i) a service injury or disease that relates to warlike service or non-warlike service; and

(ii) another service injury or disease.

Definitions

In this Guide, unless a contrary intention appears:

accepted condition means an injury or disease that has been determined to be caused by service.

Act means the *Military Rehabilitation and Compensation Act 2004* as amended from time to time.

add means find the arithmetic sum of two or more numbers.

clinical features includes signs and symptoms.

combine means produce a result by combining two or more numbers by applying Chart 18.1 (Combined Values Chart) in Chapter 18 in accordance with that Chapter.

Commission means the Military Rehabilitation and Compensation Commission.

condition means an injury or a disease.

defence-caused injury and ***defence-caused disease*** have the meaning given in section 70 of the VEA.

disease means:

(a) any physical or mental ailment, disorder, defect or morbid condition (whether of sudden onset or gradual development); or

(b) the recurrence of such an ailment, disorder, defect or morbid condition;

but does not include:

(c) the aggravation of such an ailment, disorder, defect or morbid condition; or

(d) a temporary departure from:

(i) the normal physiological state; or

(ii) the accepted ranges of physiological or biochemical measures;

that results from normal physiological stress (for example, the effect of exercise on blood pressure) or the temporary effect of extraneous agents (for example, the effect of alcohol on blood cholesterol levels).

GARP V means the Guide to the Assessment of Rates of Veterans' Pensions, Fifth Edition (GARP V), instrument No.9 of 1997 determined on 30 September 1997 by the Repatriation Commission under section 29 of the VEA and approved by the Minister for Veterans' Affairs on 1 October 1997.

Guide means this Guide to Determining Impairment and Compensation.

impairment, in relation to a person, means the loss, the loss of the use, or the damage or malfunction, of any part of the person's body, of any bodily system or function, or of any part of such a system or function.

impairment rating means a measure of the degree of medical impairment on a scale of 0 to 100.

injury means any physical or mental injury (including the recurrence of a physical or mental injury) but does not include:

(a) a disease; or

(b) the aggravation of a physical or mental injury.

lifestyle points means the number of points determined using the tables in Chapter 22 of this Guide.

lifestyle averaged points means the total of lifestyle points added together and averaged for each of the tables used.

lump sum means the amount payable after determining the periodic payment for a service injury or disease and converted to a single dollar amount in accordance with the tables provided by the Australian Government Actuary for that purpose.

member or former member means a member or former member of the Defence Force who serves or served on or after 1 July 2004.

non-accepted condition means any injury or disease that has not been determined under the Act to be service related or has been determined under the Act not to be service related.

periodic payment means the amount determined by reference to the tables in this guide for warlike and non-warlike service or for peacetime service and the maximum amount payable under the relevant provision of the Act.

service means service in the Defence Force which is warlike service, non-warlike service or peacetime service as determined by the Minister for Defence from time to time.

service disease has the meaning given by section 27, subsections 29(1) and (2), and section 30 of the Act.

Note: A reference to a service disease being contracted includes a reference to a disease being aggravated by defence service (see section 7 of the Act).

service injury has the meaning given by section 27, subsections 29(1) and (2), and section 30 of the Act.

Note: A reference to a service injury being sustained includes a reference to an injury being aggravated by defence service (see section 7 of the Act).

SRCA means the *Safety, Rehabilitation and Compensation Act 1988.*

Statement of Principles means:

(a) a Statement of Principles determined by the Repatriation Medical Authority under section 196B of the VEA and to which section 19 of *the Consequential and Transitional Provisions Act 2004* applies; or

(b) a determination made by the Commission under subsection 340(2) or (3) of the Act.

VEA means the *Veterans' Entitlements Act 1986*.

veteran means a member or former member of the Defence Force (including a deceased person) under section 5 of the MRCA in respect of whom an injury or disease has been determined to be caused by that service.

war-caused injury and ***war-caused disease*** have the meaning given in section 9 of the VEA.

worksheet means a page or pages of this Guide, identified as such, that gives a structure by which certain calculations may be set out to assist in determining an impairment rating.

Definitions of words and phrases that are used in only one chapter are to be found in that chapter.

Acknowledgment of sources

The **Guide to the Assessment of Rates of Veterans' Pensions** Fifth Edition, Part A Chapters 1–12 and Part B Chapters 13-17 and Part C Chapters 18-21 are the basic tables for this Guide.

That publication acknowledges that the following published works were found to be useful in the preparation of the VEA Guide (GARP V) and therefore were basic to this Guide as well:

Guides to the Evaluation of Permanent Impairment, 4th edition, American Medical Association, 1993;

International Classification of Impairments, Conditions, and Handicaps, World Health Organisation, Geneva, 1980; and

Publication No 118 of the National Acoustic Laboratories, Improved Procedure for Determining Percentage Loss of Hearing, by J. Macrae, Australian Government Publishing Service, Canberra, 1988.

HOW TO USE THIS GUIDE

The subject of assessment

This Guide is to be applied to assess the impairment points due to injuries or diseases, or both, that are determined to be service related.

In making any determination on the impairment the clinical features of injuries or diseases are to be taken into account. Sequelae of conditions can only be assessed after the sequelae have been determined to be service related.

The elements of whole person impairment and compensation

The two elements required to determine a periodic payment are medical impairment and lifestyle. Impairment is dealt with in Chapters 1 – 21 of this Guide. Lifestyle effects are dealt with separately and are described in Chapter 22 of this Guide.

Chapters 1 to 16 of this Guide contain two principal types of tables. Physical loss is to be rated against criteria in "Other Impairment" tables. Functional loss is to be rated against criteria in "Functional Loss" tables.

Greater emphasis has been given throughout this Guide to functional loss as a basis for assessment. It is measured by reference to an individual's performance efficiency compared with an average, healthy person of the same age and sex, in a set of defined vital functions. This is a means of compensating for the loss of ability to perform everyday functions.

Each table contains benchmark values, generally at intervals of five points. In some cases the range between nil and five includes a rating of two points. In some other cases intervals are greater than five points because lesser increments of impairment cannot be distinguished.

Each benchmark is a threshold value, that is, the rating applies only if the threshold is achieved or exceeded. Ratings are not to be rounded up to the next benchmark. Similarly, ratings between benchmark values contained in the tables are not to be interpolated.

In some tables more than one criterion is stated opposite a benchmark value. The different criteria are marked by dot points. Where more than one criterion is stated for a particular value, the condition being assessed has to satisfy one of the criteria in order to attract the impairment rating of that value.

Each chapter contains step-by-step instructions to be followed in the use and application of the tables.

Determining compensation payable

This Guide specifies the only way of determining the amount of compensation payable is by reference to the maximum compensation that can be paid. The maximum is specified in the Act as a weekly amount. It becomes payable only when a person's impairment rating reaches 80 points.

The Guide includes tables that will give a compensation factor for different impairment and lifestyle ratings. Different tables are used for warlike and non-warlike service and for peacetime service. The maximum compensation is multiplied by the compensation factor to give the weekly amount of compensation payable.

Medical impairment

Under this Guide medical impairment has two components:

(a) physical loss of, or disturbance to, any body part or system; and

(b) the resultant functional loss.

Whole person impairment

Medical impairment is expressed in impairment points, out of a maximum rating of 100. On this scale, zero corresponds to no impairment or negligible impairment from accepted conditions, and 100 points corresponds to death. Effectively, impairment points are percentages of the impairment of the whole person.

Loss of hearing, loss of taste, loss of smell, loss of a finger or of a toe as impairment for a single condition can be compensated for under this Guide only if a threshold value of 5 impairment points is reached. Any combination of loss from conditions that delivers a combined impairment of 10 or more will attract compensation.

Example
Loss of taste rated at 5 impairment points and mild reflux rated at 2 impairment points.
- A payment for loss of taste is permitted but, since 5 plus 2 is 7 and does not reach the threshold of 10 impairment points, no other payment is made.

Loss of taste rated at 5 impairment points and reflux rated at 5 impairment points.
- The reflux 5 points when combined with the loss of taste reaches the threshold of 10 impairment points and so payment is made on the basis of 10 impairment points.

Functional loss

Medical impairment is measured chiefly by loss of vital functions and is addressed in the twelve system specific chapters of this Guide, as follows:

Cardio-Respiratory Impairment

Hypertension and Non-Cardio Vascular Conditions

Impairment of Spine and Limbs

Emotional and Behavioural

Neurological Impairment

Gastro-intestinal Impairment

Ear, Nose, and Throat Impairment

Visual Impairment

Renal and Urinary Tract Function

Sexual Function, Reproduction, and Breasts

Skin Impairment

Endocrine and Haemopoietic Impairment

Other Impairment

Other Impairment is the physical loss of, or disturbance to, any body part or system. This concept is extended in some chapters in this Guide to include discomfort, pain, poor prognosis and other, less tangible, effects of accepted conditions.

Lifestyle effects

Lifestyle effects are to be assessed by applying Chapter 22 of this Guide in accordance with that Chapter.

The Tables

Types of Tables

There are several different sorts of tables used in GARP V that remain common to both GARP V and this Guide. Basically these are various impairment tables, the lifestyle tables and the tables to deal with more complex matters.

However the MRCA requires the Commission to specify two particular tables that are not used in GARP V or the VEA. These are tables that arise from the method specified by the Commission to determine compensation payable for warlike and non-warlike as distinct from peacetime service (see Tables 1 and 2 of Chapter 23). In addition the Commission must specify a method for determining compensation payable when a mixture of warlike (or non-warlike) and peacetime service causes the whole person impairment

Gender Use

Some tables are for men only, some for women only, and others (the majority) are not gender specific. Each table is clearly marked in the top right hand corner:

- the symbol  means that the table is only to be used for the assessment of *female* veterans;
- the symbol  means that the table is only to be used for the assessment of *male* veterans;
- the symbol  means that the table is used for *either male or female* veterans.

Age Adjustment

Some tables incorporate age dependent criteria. Some other tables have no such criteria and require subsequent age adjustment by applying tables provided for that purpose.

Each table is clearly marked in the bottom left hand corner with instructions on age adjustment for ratings derived from that table.

Conversion Factor Tables

The Commission is required by paragraph 67(1)(e) to provide methods that enable Lifestyle to be combined with Impairment to give compensation for each type of service by reference to the maximum compensation payable. These are set out as compensation factors in tables in Chapter 23 and

include a different set of factors to be used for warlike and non-warlike service and for other service as provided for in the Act (see subsection 67(2)).

Non-system specific assessments

This Guide has chapters describing alternate methods of assessing certain conditions:

Chapter 13 — Negligible Impairment

Chapter 14 — Malignant Conditions

Chapter 15 — Intermittent Impairment

Chapter 16 — Activities of Daily Living

Chapter 17 — Disfigurement

Conditions and their sequelae

Only the clinical features of an accepted condition may be taken into account in making an assessment. If the accepted condition causes some other distinct and diagnosable condition (sequela), the symptoms of the sequela cannot be taken into account when assessing the original accepted condition.

Sequelae can only be assessed when they have been separately determined to be service related.

Applying the instructions

To the extent of any inconsistency between an instruction in this "How to use the Guide" and a specific instruction concerning a particular matter in this Guide, the specific instruction in this "How to use the Guide" is to apply to that particular matter.

Duration of assessment period or date of determination and commencement of periodic payment and permanent impairment and interim payments

Assessment can only be made by reference to the available medical and other material that, of necessity, relates to a particular point or period in time.

The assessment of the impairment and lifestyle ratings must be based on the Commission's reasonable satisfaction on the available material. If there is a significant change in impairment during the course of an investigation a payment may still be made as an interim payment. Interim payments are made until the Commission is satisfied that the condition has stabilised at an impairment level.

If the condition worsens after the last payment is made the person may claim additional compensation for the worsening and further periodic payments or lump sums can be made.

Apportionment of impairment ratings

It is sometimes necessary, for an accepted condition, to compare an impairment rating derived from one table with an impairment rating derived from another table. When two or more conditions contribute to the impairment ratings from either or both tables, and comparison is necessary, the method called "apportionment" is to be applied before making the comparison.

Details of the application of apportionment are given in Chapter 20.

Apportionment between tables

If a condition can be rated using both a functional loss table and an "Other Impairment" table, only the higher of the two ratings is to be given to the veteran.

Paired organ policy

The paired organ policy applies to eyes, kidneys etc and is described in detail in Chapter 21 of this Guide.

Impairment for specific disabilities

The Act provides only for impairment and does not convert that rating into a degree of incapacity like the VEA requires. Instead the impairment and lifestyle ratings determine a factor, not a degree of incapacity. Incapacity applies to ability to perform military service or a civilian occupation. Therefore, Chapter 24, "Degree of incapacity for specific disabilities" of GARP V, has been omitted. Instead impairment ratings are based only on the Tables from Chapter 1 to 21 of this Guide.

MEDICAL IMPAIRMENT

PART A: SYSTEM SPECIFIC ASSESSMENT

CHAPTER 1

CARDIORESPIRATORY IMPAIRMENT

INTRODUCTION

Cardiorespiratory impairment results from conditions that affect the function of the heart or lungs. The procedures described in this chapter are to be applied in assessing most conditions of the heart and lungs, and will usually also be appropriate for conditions affecting the function of the thorax or diaphragm, lesions of the nerves that supply the muscles of respiration, and conditions such as anaemia. The principal exception is any condition which is predominantly intermittent in nature and which would be better assessed by applying Chapter 15 (Intermittent Impairment).

Different procedures (described in Chapter 2) are to be applied to assess hypertension and non-cardiac vascular conditions (such as aortic aneurysm and varicose veins).

In general, cardiorespiratory impairment is to be measured by reference to exercise tolerance. Exercise tolerance is quantified in terms of METs (see pages 11–12). However, if a respiratory component is present, measurements of lung function, such as forced expiratory volume in one second (FEV1), forced vital capacity (FVC), and maximal expiratory flow ($MEF_{25–75}$) are to be used in addition to exercise tolerance. FEV1 and FVC are to be measured by spirometry. For the purposes of assessment in accordance with this Guide, the terms "$MEF_{25–75}$" and "$FEF_{25–75}$" (forced expiratory flow between 25% and 75% of the vital capacity) are to be taken as equivalent.

The conversion of loss of exercise tolerance and measurements of lung function into an impairment rating is set out in Table 1.2 and Table 1.3.

Certain cardiorespiratory conditions cannot be rated by applying exercise tolerance. These include:

- conditions that do not decrease exercise tolerance;
- conditions that do not produce symptoms; and
- intermittent conditions.

"Exercise tolerance" refers to a person's ability to exercise from a cardiorespiratory point of view rather than to a person's total ability to exercise. For example, a veteran who has osteoarthritis of both knees may be greatly limited in walking but may still be able to swim a considerable distance. Such a veteran would still have good exercise tolerance from a cardiorespiratory point of view, though total ability to exercise would be reduced.

A veteran whose ability to exercise has been significantly reduced by other conditions (such as musculoskeletal conditions or being grossly overweight), or who no longer has cardiac or respiratory symptoms on exercise, cannot always be given an appropriate impairment rating for reduced exercise tolerance. However, the need to apply Chapter 19 (Partially Contributing Impairment) should always be considered before disregarding exercise tolerance figures.

Calculation of the impairment rating for accepted cardiorespiratory conditions

Follow the steps below to determine the impairment rating for cardiorespiratory conditions:

(Each step is elaborated in the following pages.)

Step 1: Establish what cardiorespiratory conditions are present.

For the purpose of assessing cardiorespiratory impairment, both the *accepted* and the *non-accepted* conditions are be taken into account. Both will affect the way in which cardiorespiratory functional impairment is calculated. (Their combined effect is taken into account in the application of Table 1.5 in Step 5.)

Any non-accepted conditions are to be subsequently allowed for by applying Chapter 19 (Partially Contributing Impairment) — see Step 7.

When considering the question: ‘What cardiorespiratory conditions are present in this veteran?’, it is not appropriate to rely simply on a list of accepted conditions. Both previously claimed but rejected cardiorespiratory conditions and unclaimed cardiorespiratory conditions may also be present.

Step 2: Assess the information that is available and decide whether it is reliable and sufficient.

To make a reliable cardiorespiratory assessment, there should be an adequate medical history of the veteran's cardiorespiratory conditions. In addition, there should be information relating to the veteran's effort tolerance and, if any respiratory disease is present, there should also be one or more sets of spirometry or other physiological measurements of respiratory function. The criteria by which the evaluation of the information is to be made are set out below.

Medical history

An adequate history of the veteran's illness and a description of the current symptoms and details of the current treatment should be available.

The history should be reviewed at the start of the cardiorespiratory assessment procedure to establish whether any major cardiorespiratory event (for example a myocardial infarction or bypass surgery) has occurred within the period of assessment.

An examination of the history will indicate whether any Other Impairment ratings (from Tables 1.7, 1.8, 1.9, 1.10) are applicable. For example, in the case of ischaemic heart disease, the history will reveal whether the veteran has had any myocardial infarctions, whether coronary bypass surgery has been performed and the outcome of any such surgery. In other cases, for example when respiratory disease is present, the current treatment will reveal whether any Other Impairment rating for cardiorespiratory conditions is applicable.

In long-standing respiratory conditions, there will often be a disease complex present that is more extensive than that implied by the original diagnostic label. For example, asthma may lead to chronic obstructive respiratory disease and chronic bronchitis may lead to small airways disease. Such extensions of the disease process are to be assessed as part and parcel of the original condition unless there is clear reason why they should not be — for example, they have been determined to be non-accepted conditions.

Effort tolerance

Effort tolerance information should always be obtained except if the veteran has a condition that renders the collection of reliable effort tolerance information impracticable.

Examples of conditions that may render the collection of reliable effort tolerance information impracticable include:

- hemiparesis following a stroke;
- quadriplegia or hemiplegia;
- severe arthritis of the lower limbs; and
- certain mental conditions such as dementia (in which the veteran's ability to co-operate or provide useful information may be restricted).

The date of the effort tolerance information used must be appropriate to the period of assessment: the effort tolerance information should be *not more than six months older* than the relevant time in the assessment period to which the information is to be applied.

Measurements of lung function

Spirometry should always be obtained if any condition affecting the function of the lungs is present unless it is not practicable or appropriate to perform spirometry because:

- the veteran is very old or frail and cannot reasonably attend a clinic where spirometry can be performed; or
- the veteran lives in a remote locality and cannot reasonably attend a clinic where spirometry can be performed; or
- the veteran's impairment from other accepted conditions is of such a degree that it would result in a combined impairment rating of at least 68 points.

The date of the spirometry used must be appropriate to the period of assessment: the spirometry should be *not more than six months older* than the relevant time in the assessment period to which the information is to be applied.

The nature of the spirometry should be appropriate: the nature of the spirometric readings should be *consistent with the known conditions affecting the veteran* and should also be consistent with such other information (eg, old spirometry) as is available or can reasonably be obtained. There should be no unexplained inconsistencies between the various reports.

If the nature of the spirometry cannot be reconciled with other relevant information, the spirometry may need to be repeated or the veteran referred to a respiratory physician for clarification of the situation.

If a veteran has emphysema, as evidenced by diminished carbon monoxide diffusing capacity, and diagnosed by a specialist respiratory physician, assessment can be made on the basis of effort tolerance alone.

Step 3: Determine the impairment rating based on effort tolerance.

To determine the impairment rating based on effort tolerance follow the substeps below.

(Each step is elaborated in the following pages.)

Substep 3A	**Determine the symptomatic activity level** by applying Table1.1 — Activity Levels (with energy expenditure in METs).	Page 10
Substep 3B	**Convert that symptomatic activity level into an impairment rating.** This step involves consulting either Table 1.2 — Loss of Cardiorespiratory Function: Exercise Tolerance (Males); or Table 1.3 — Loss of Cardiorespiratory Function: Exercise Tolerance (Females).	Page 13

After both substeps have been completed, a single rating will have been obtained. This rating is known as the impairment rating for effort tolerance.

If symptoms do not occur, a rating for the condition may be found in Table 1.6 (Cardiac Failure) if applicable, or in the relevant Other Impairment table.

Substep 3A: Determine the symptomatic activity level.

The **symptomatic activity level** is the exercise level (measured in METs) at which symptoms occur. One MET represents the energy expenditure associated with the consumption of 3.5 mL oxygen per kilogram of body weight per minute. Table 1.1 lists various activities grouped according to their energy expenditure in METs.

The symptomatic activity level is the level at which the activities from within any one METs category consistently give rise to symptoms of the accepted cardiorespiratory condition, such as angina, dyspnoea, palpitations, or fatigue. The symptomatic activity level may be determined by reference to a report specifically provided for the purpose as well as by reference to clinical notes and by comparison of the information with the activities listed in Table 1.1. (The symptomatic activity level may be determined by reference to activities other than those contained in Table 1.1 if the energy expenditure (in METs) of those activities is available in the medical or scientific literature.)

In determining the symptomatic activity level, greater reliance is to be placed on activities that involve steady, as opposed to sporadic, expenditure of energy. Such activities are more reliable as indicators of exercise tolerance. Less reliance is to be placed on activities that can be completed in less than a few minutes, as symptoms may take longer than this to occur.

Responses of the type ‘I cannot do such and such’ or ‘I do not do so and so’ are not useful in assessing the symptomatic activity level. What must be established is that level of exercise that the veteran is able to do but which results in angina, breathlessness, or some other cardiorespiratory symptom.

Symptoms that occur while an activity is performed are not necessarily a result of the energy expenditure occasioned by the activity. Many specific activities can be performed in a way that would mean that they were no longer examples of the METs level in which they are placed in Table 1.1. For example, while driving a car sedately is an example of 2–3 METs, driving a car in a Grand Prix is not.

Estimations of exercise tolerance above the 6-7 METs level should only be made using exercise tests. The activities above the 6-7 METs level are listed for information only.

TABLE 1.1

CARDIORESPIRATORY IMPAIRMENT: ACTIVITY LEVELS
(with energy expenditure in METS)

1-2 METs Energy expended at rest or minimal activity

- Lying down.
- Sitting and drinking tea.
- Using sewing machine (electric).
- Sitting down.
- Sitting and talking on telephone.
- Travelling in car as passenger.
- Standing.
- Sitting and knitting.
- Playing cards.
- Strolling (slowly).
- Light sweeping.
- Clerical work (desk work only).

2–3 METs Energy expanded in dressing, washing and performing light household duties

- Light household duties.
- Walking slowly (3.5 km/h).
- Playing piano, violin, or organ.
- Typing.
- Cooking or preparing meals.
- Playing billiards.
- Clerical work which involves moving around.
- Setting table.
- Driving power boat.
- Washing dishes.
- Playing golf (with power buggy).
- Bench assembly work (seated).
- Dressing, showering.
- Horseback riding at walk.
- Using self-propelled mower.
- Light tidying, dusting.
- Lawn bowls.
- Polishing silver.
- Driving car.

3–4 METs Energy expended in walking at an average pace

- Walking at average walking pace (5 km/h).
- Golf (pulling buggy).
- Machine assembly.
- Cleaning car (excludes vigorous polishing).
- Minor car repairs.
- Tidying house.

- Welding.
- Cleaning windows.
- Table tennis.
- Pushing light power mower over flat suburban lawn at slow steady pace
- Vacuuming.
- Sedate cycling (10 km/h)
- Shifting chairs.
- Light gardening (weeding and water).
- Hanging out washing.
- Making bed.

4–5 METs Moderate activity: encompasses more strenuous daily activities with the exclusion of manual labour and vigorous exercise

- Mopping floors.
- Golf (carrying bag).
- Light carpentry (eg, chiselling, hammering).
- Scrubbing floors.
- Ballroom dancing.
- Beating carpets.
- Tennis doubles (social, non-competitive).
- Stocking shelves with light objects.
- Polishing furniture.
- Wallpapering.
- Shopping and carrying groceries (10 kg).
- Gentle swimming.
- Painting outside of house.
- Hoeing (soft soil).
- Stacking firewood.

5–6 METs Heavy exercise: manual labour or vigorous sports

- Walking 6.5 km/h (sustained brisk walk, discomfort in talking at the same time).
- Walking slowly but steadily up stairs.
- Carpentry (eg. Sawing and planing with hand tools).
- Swimming laps (non-competitive).
- Pushing a full wheelbarrow (20 kg).
- Shovelling dirt (12 throws a minute).
- Digging in garden.

6–7 METs

- Badminton (competitive)
- Tennis (singles, non-competitive).
- Water skiing.
- Loading truck with bricks.
- Using a pick and shovel to dig trenches.

7–8 METs Very heavy exercise

- Jogging (8 km/h).
- Horseback riding (galloping).
- Carrying heavy objects (30 kg) on level ground.
- Sawing hardwood with hand tools.

8–9 METs

- Running (9 km/h).

- Skiing (cross-country.
- Chopping hardwood.
- Callisthenics.
- Squash (non competitive).

10+ METs

- Running quickly (10 km/h).
- Cycling quickly (25 km/h).
- Carrying loads (10 kg) up a gradient.
- Football (any code).

The activities listed under each heading are examples. There will be other activities that have the same METs expenditure and hence can be used for reference if their METs level is known.

Ratings derived from METs are age adjusted

Alternate procedures for establishing the symptomatic activity level

1. The symptomatic activity level may be determined by exercise tests. These tests include:

   – use of treadmills; or

   – cycles; or

   – rowing machines.

   Because of their greater objectivity, the results of exercise tests (when available) are to be used in preference to the method of calculating exercise tolerance as described above. Moreover, exercise tests must always be used to make an estimate of exercise tolerance above 6–7 METs.

2. If certain levels of activity have been prohibited by the treating doctor, because of the adverse effect the prohibited activity is likely to have on the veteran's health as a result of the accepted condition, then the level of exercise that has been prohibited may be regarded as the symptomatic activity level.

Substep 3B: Convert the symptomatic activity level into an impairment rating.

The symptomatic activity level is used, in conjunction with the veteran's age, height, and sex, to obtain an impairment rating.

In the case of a male, Table 1.2 is to be applied.
In the case of a female, Table 1.3 is to be applied.

For the purposes of Tables 1.2 and 1.3, a veteran's age is taken to be his or her age in whole years at the date of the report relating to the exercise tolerance (unless the report is of a retrospective type and clearly refers to some earlier period, in which case the veteran's age is taken to be his or her age in whole years at the relevant time).

Step 4: *(Omit this step if no respiratory disease is present.)* Determine the impairment rating based on measurements of lung function.

FEVl, FVC, and $MEF_{25–75}$ are the usual physiological measurements of lung function. Determinations of FEVl, FVC, and $MEF_{25–75}$ should be conducted by an experienced operator without specific administration of a bronchodilator. The best set of results should be selected, that is, the set of results which indicates the greatest degree of health and, consequently, the lowest degree of impairment.

If both pre-bronchodilator and post-bronchodilator results are available the pre-bronchodilator results are to be applied in determining the impairment rating based on measurements of lung function.

To determine the impairment rating based on measurements of lung function, follow the substeps below.

Substep 4A	Obtain the measured FEVl, FVC, and MEF $_{25–75}$ from the data.
Substep 4B	Work out the predicted FEVl, FVC, and MEF $_{25–75}$ for a person of the same age, height, and gender. This can be done either by applying the nomograms Figure 1a (for males) or Figure 1b (for females) or by applying the formula relating to each nomogram.
Substep 4C	Express the measured FEV1 as a percentage of the predicted FEV1, and Express the measured FVC as a percentage of the predicted FVC, and Express the measured MEF $_{25–75}$ (if appropriate) as a percentage of the predicted MEF $_{25–75}$. These conversions are performed by applying the formula: Measured value as % of predicted value = $\frac{\text{Actual value x 100}}{\text{Predicted Value}}$
Substep 4D	Determine an impairment rating from a physiological measurement by using the percentage obtained in substep 4C in conjunction with Table 1.4. Separate impairment ratings can be obtained from each physiological measurement (that is, from the FEV1, FVC, and MEF $_{25–75}$).
Substep 4E	The final impairment rating is the highest (or equal highest) of the ratings obtained in substep 4D.

Function Loss
Table 1.2

LOSS OF CARDIORESPIRATORY FUNCTION: EXERCISE TOLERANCE

(Males)

Age	Symptomatic Activity Level (METs*)									Age	Symptomatic Activity Level (METs*)								
	1–2	2–3	3–4	4–5	5–6	6–7	7–8	8–9	10+		1–2	2–3	3–4	4–5	5–6	6–7	7–8	8–9	10+
less than 25	90	80	70	60	50	40	30	20	10	55	80	70	55	40	25	15	10		
25	90	80	70	60	50	40	30	20	10	56	80	70	54	39	24	15	9		
26	90	80	70	60	50	40	30	20	10	57	80	69	53	38	23	14	8		
27	89	80	70	59	48	38	28	19	10	58	80	69	52	37	22	14	7		
28	89	80	70	59	47	37	27	19	10	59	80	68	51	36	21	13	6		
29	88	80	70	58	46	36	26	18	10	60	80	68	50	35	20	13	5		
30	88	80	70	58	45	35	25	18	10	61	80	67	49	34	19	12	4		
31	87	80	70	57	44	34	24	17	10	62	80	67	48	33	18	12	3		
32	87	80	70	57	43	33	23	17	10	63	80	66	47	32	17	11	2		
33	86	80	70	56	42	32	22	16	10	64	80	66	46	31	16	11			
34	86	80	70	56	41	31	21	16	10	65	80	65	45	30	15	10			
35	85	80	70	55	40	30	20	15	10	66	80	64	44	29	15	9			
36	85	80	70	55	39	29	20	15	9	67	79	63	43	28	14	8			
37	85	79	69	54	38	28	19	14	8	68	79	62	42	27	14	7			
38	85	79	69	54	37	27	19	14	7	69	78	61	41	26	13	6			
39	85	78	68	53	36	26	18	13	6	70	78	60	40	25	13	5			
40	85	78	68	53	35	25	18	13	5	71	77	59	39	24	12	4			
41	85	77	67	52	34	24	17	12	4	72	77	58	38	23	12	3			
42	85	77	67	52	33	23	17	12	3	73	76	57	37	22	11	2			
43	85	76	66	51	32	22	16	11	2	74	76	56	36	21	11	1			
44	85	76	66	51	31	21	16	11		75	75	55	35	20	10				
45	85	75	65	50	30	20	15	10		76	75	55	35	19	9				
46	85	75	64	49	30	20	15	9		77	75	54	34	18	8				
47	84	74	63	48	29	19	14	8		78	75	54	34	17	7				
48	84	74	62	47	29	19	14	7		79	75	53	33	16	6				
49	83	73	61	46	28	18	13	6		80	75	53	33	15	5				
50	83	73	60	45	28	18	13	5		81	75	52	32	14	4				
51	82	72	59	44	27	17	12	4		82	75	52	32	13	3				
52	82	72	58	43	27	17	12	3		83	75	51	31	12	2				
53	81	71	57	42	26	16	11	2		84	75	51	31	11	1				
54	81	71	56	41	26	16	11			85	75	50	30	10					
									above 85		75	50	30	10					

One MET represents the energy expenditure associated with the consumption of 3.5 mL oxygen/kg body Weight/min.

Ratings derived from METs are age adjusted

Functional Loss
Table 1.3

LOSS OF CARDIORESPIRATORY FUNCTION: EXERCISE TOLERANCE

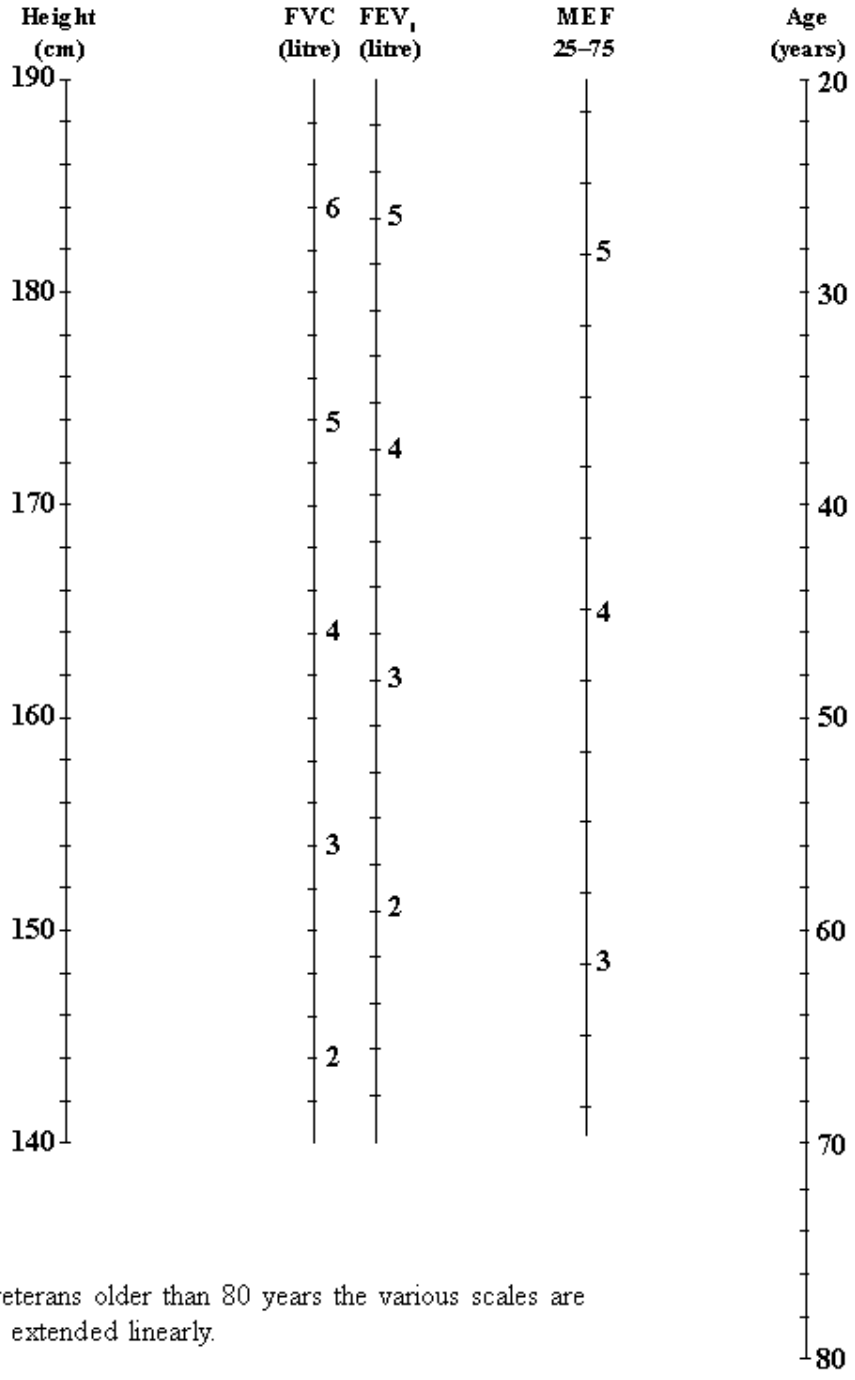
(Females)

Age	Symptomatic Activity Level (METs*)									Age	Symptomatic Activity Level (METs*)								
less than	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	10+		1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	10+
25	90	80	70	55	40	30	20	15	10	55	80	65	50	30	20	15	10		
25	90	80	70	55	40	30	20	15	10	56	80	65	49	29	20	15	9		
26	90	80	69	54	40	30	20	15	10	57	80	64	48	28	19	14	8		
27	89	79	68	53	39	29	20	15	10	58	80	64	47	27	19	14	7		
28	89	79	67	52	39	29	20	15	10	59	80	63	46	26	18	13	6		
29	88	78	66	51	38	28	20	15	10	60	80	63	45	25	18	13	5		
30	88	78	65	50	38	28	20	15	10	61	80	62	44	24	17	12	4		
31	87	77	64	49	37	27	20	15	10	62	80	62	43	23	17	12	3		
32	87	77	63	48	37	27	20	15	10	63	80	61	42	22	16	11	2		
33	86	76	62	47	36	26	20	15	10	64	80	61	41	21	16	11			
34	86	76	61	46	36	26	20	15	10	65	80	60	40	20	15	10			
35	85	75	60	45	35	25	20	15	10	66	80	59	39	20	15	9			
36	85	75	60	45	34	25	20	15	9	67	79	58	38	19	14	8			
37	85	75	60	44	33	24	19	14	8	68	79	57	37	19	14	7			
38	85	75	60	44	32	24	19	14	7	69	78	56	36	18	13	6			
39	85	75	60	43	31	23	18	13	6	70	78	55	35	18	13	5			
40	85	75	60	43	30	23	18	13	5	71	77	54	34	17	12	4			
41	85	75	60	42	29	22	17	12	4	72	77	53	33	17	12	3			
42	85	75	60	42	28	22	17	12	3	73	76	52	32	16	11	2			
43	85	75	60	41	27	21	16	11	2	74	76	51	31	16	11	1			
44	85	75	60	41	26	21	16	11		75	75	50	30	15	10				
45	85	75	60	40	25	20	15	10		76	75	49	29	15	9				
46	85	74	59	39	25	20	15	9		77	75	48	28	14	8				
47	84	73	58	38	24	19	14	8		78	75	47	27	14	7				
48	84	72	57	37	24	19	14	7		79	75	46	26	13	6				
49	83	71	56	36	23	18	13	6		80	75	45	25	13	5				
50	83	70	55	35	23	18	13	5		81	75	44	24	12	4				
51	82	69	54	34	22	17	12	4		82	75	43	23	12	3				
52	82	68	53	33	22	17	12	3		83	75	42	22	11	2				
53	81	67	52	32	21	16	11	2		84	75	41	21	11	1				
54	81	66	51	31	21	16	11			85	75	40	20	10					
										above 85	75	40	20	10					

One MET represents the energy expenditure associated with the consumption of 3.5mL oxygen/kg body weight/min.

Ratings derived from METs are age adjusted

FIGURE 1a - PREDICTION NOMOGRAM: MALE (BTPS)



For veterans older than 80 years the various scales are to be extended linearly.

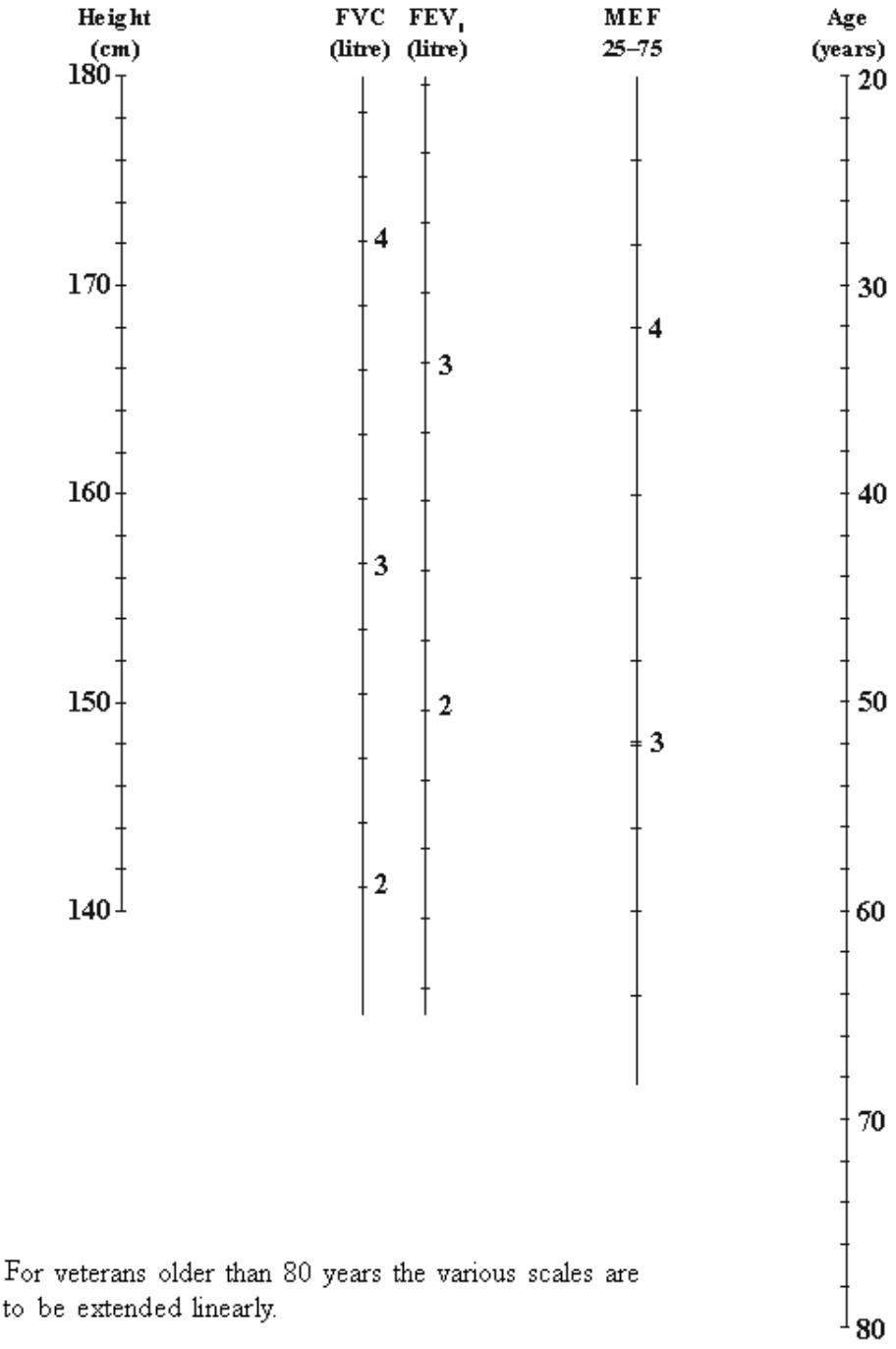
This nomogram corresponds to the formulas:

FEV1 = 0.0553 × Height - 0.036 × Age - 4.182

FVC = 0.0713 × Height - 0.0265 × Age - 6.463

MEF 25–75 = 2.683 + 0.0195 × Height - 0.043 × Age

FIGURE 1b - PREDICTION NOMOGRAM: FEMALE (BTPS)



For veterans older than 80 years the various scales are to be extended linearly.

This nomogram corresponds to the formulas:

FEV1 = 0.0347 × Height - 0.0252 × Age - 1.929

FVC = 0.04315 × Height - 0.02185 × Age - 2.83

MEF 25–75 = 2.918 + 0.0125 × Height - 0.034 × Age

Functional Loss
Table 1.4

LOSS OF CARDIORESPIRATORY FUNCTION: PHYSIOLOGICAL MEASUREMENTS

Impairment Rating	FEV1 as a percentage of predicted	FVC as a percentage of predicted	$MEF_{25–75}$ as a percentage of predicted
NIL	85	85	85
TWO		84	
SIX	84		84
SEVEN		83	
EIGHT	83		83
TEN	82		82
ELEVEN	81	82	81
TWELVE			
THIRTEEN	80		80
FOURTEEN	79	81	79
FIFTEEN			
SIXTEEN	78	80	78
SEVENTEEN	77		77
EIGHTEEN	76	79	76
NINETEEN			
TWENTY	75	78	75
TWENTY-ONE	74		74
TWENTY-TWO	73	77	73
TWENTY-THREE	72		72
TWENTY-FOUR	71	76	71
TWENTY-FIVE			
TWENTY-SIX	70	75	70
TWENTY-SEVEN	69	74	69
TWENTY-EIGHT	68		68
TWENTY-NINE	67	73	67
THIRTY	66	72	66
THIRTY-ONE	65	71	65
THIRTY-TWO	64		64
THIRTY-THREE	63	70	63
THIRTY-FOUR	62	69	62
THIRTY-FIVE	61	68	61
THIRTY-SIX	60	67	60
THIRTY-SEVEN	59		59

Functional Loss
Table 1.4 (continued)

LOSS OF CARDIORESPIRATORY FUNCTION: PHYSIOLOGICAL MEASUREMENTS

Impairment Rating	FEV1 as a percentage of predicted	FVC as a percentage of predicted	$MEF_{25–75}$ as a percentage of predicted
THIRTY-EIGHT	58	66	58
THIRTY-NINE	57	65	57
FORTY		64	
FORTY-ONE	56	63	56
FORTY-TWO	55	62	55
FORTY-THREE	54	61	54
FORTY-FOUR	53	60	53
FORTY-FIVE	52		52
FORTY-SIX	51	59	51
FORTY-SEVEN	50	58	50
FORTY-EIGHT	49	57	49
FORTY-NINE	48	56	48
FIFTY	47	55	47
FIFTY-ONE	46	54	46
FIFTY-TWO	45	53	45
FIFTY-THREE	44	52	44
FIFTY-FOUR	43	51	43
FIFTY-FIVE	42	50	42
FIFTY-SIX	41	49	41
FIFTY-SEVEN	40		40
FIFTY-EIGHT	39	48	39
FIFTY-NINE	38	47	38
SIXTY	37	46	37
SIXTY-ONE	36	45	36
SIXTY-TWO	35	44	35
SIXTY-THREE	34	43	34
SIXTY-FOUR	33	42	33
SIXTY-FIVE	32	41	32
SIXTY-SIX	31	40	31
SIXTY-SEVEN	30	39	30
SIXTY-EIGHT	29	38	29
SIXTY-NINE	28	37	28
SEVENTY	27	36	27

Ratings derived from this table are age adjusted

Whenever the measured parameter is less than 85% of the predicted, Table 1.4 corresponds to the following formulas:

$$\text{Impairment rating based on FEV1} = 98 - \%\,\text{FEV1} + \frac{50}{(\%\,\text{FEV1-90})}$$

$$\text{Impairment rating based on FVC} = 108 - \%\,\text{FVC} + \frac{100}{(\%\text{FVC-88.5})}$$

$$\text{Impairment rating based on MEF}_{25-75} = 98 - \%\,\text{MEF} + \frac{50}{(\%\,\text{MEF-90})}$$

When the measured parameter is 85% or more of the predicted, then the impairment rating is defined as NIL

"%FEV1" means measured FEV1 expressed as a percentage of predicted FEV1.
"%FVC" means measured FVC expressed as a percentage of predicted FVC. "%MEF" means measured MEF_{25-75} expressed as a percentage of predicted MEF_{25-75}.

In each case the percentage is to be rounded to the nearest integer before the formula is applied.

If these formulas are applied the resulting impairment rating is always to be rounded to the nearest integer.

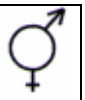
Step 5: Calculate the total accepted cardiorespiratory functional impairment rating.

At this stage there will usually be an impairment rating derived from effort tolerance information and there may also be an impairment rating derived from measurements of lung function. These must be combined into a single cardiorespiratory functional impairment rating. The method by which that is to be done is set out in Table 1.5.

For the purposes of Table 1.5, the following abbreviations have been used:

Abbreviation	Meaning
"FI"	means cardiorespiratory functional impairment rating.
"No FI"	means a cardiorespiratory functional impairment rating cannot be calculated from either effort tolerance information or measurements of lung function.
"METs"	means the cardiorespiratory functional impairment rating is to be taken as the impairment rating derived from METs alone.
"Spirometry"	means the cardiorespiratory functional impairment rating is to be taken as the impairment rating derived from measurements of respiratory function.
"average of METs and Spirometry"	means the average of the cardiorespiratory functional impairment rating derived from METs alone and the cardiorespiratory functional impairment rating derived from measurements of respiratory function alone — using the ordinary formula for averaging two quantities or by use of the nomogram in Figure 1c. In either case, the result is to be rounded to the nearest integer.

Procedural
Table 1.5



CARDIORESPIRATORY FUNCTIONAL IMPAIRMENT

		Respiratory disease present		No respiratory disease
		Spirometry obtainable	**Spirometry not obtainable**	
Cardiac disease present	METs data obtainable	FI = higher of METs and Spirometry	FI = METs	FI = METs
	METs data not obtainable	FI = Spirometry	No FI	No FI
No cardiac disease	METs data obtainable	FI = average of METs and Spirometry	FI = METs	
	METs data not obtainable	FI = Spirometry	No FI	
In applying this table, both accepted and non-accepted conditions are to be taken into account.				

No age adjustment permitted for this table

From Table 1.5 it will be seen that:

- if cardiac conditions exist in the absence of respiratory disease, cardiorespiratory functional impairment should be measured by effort tolerance alone;
- if respiratory conditions exist in the absence of cardiac disease, the cardiorespiratory functional impairment rating is the rounded average of (i) impairment as measured by effort tolerance, and (ii) impairment as measured by spirometry;
- if both cardiac and respiratory conditions co-exist, the cardiorespiratory functional impairment rating is the greater of (i) the impairment rating as measured by effort tolerance, and (ii) the impairment rating as measured by spirometry.

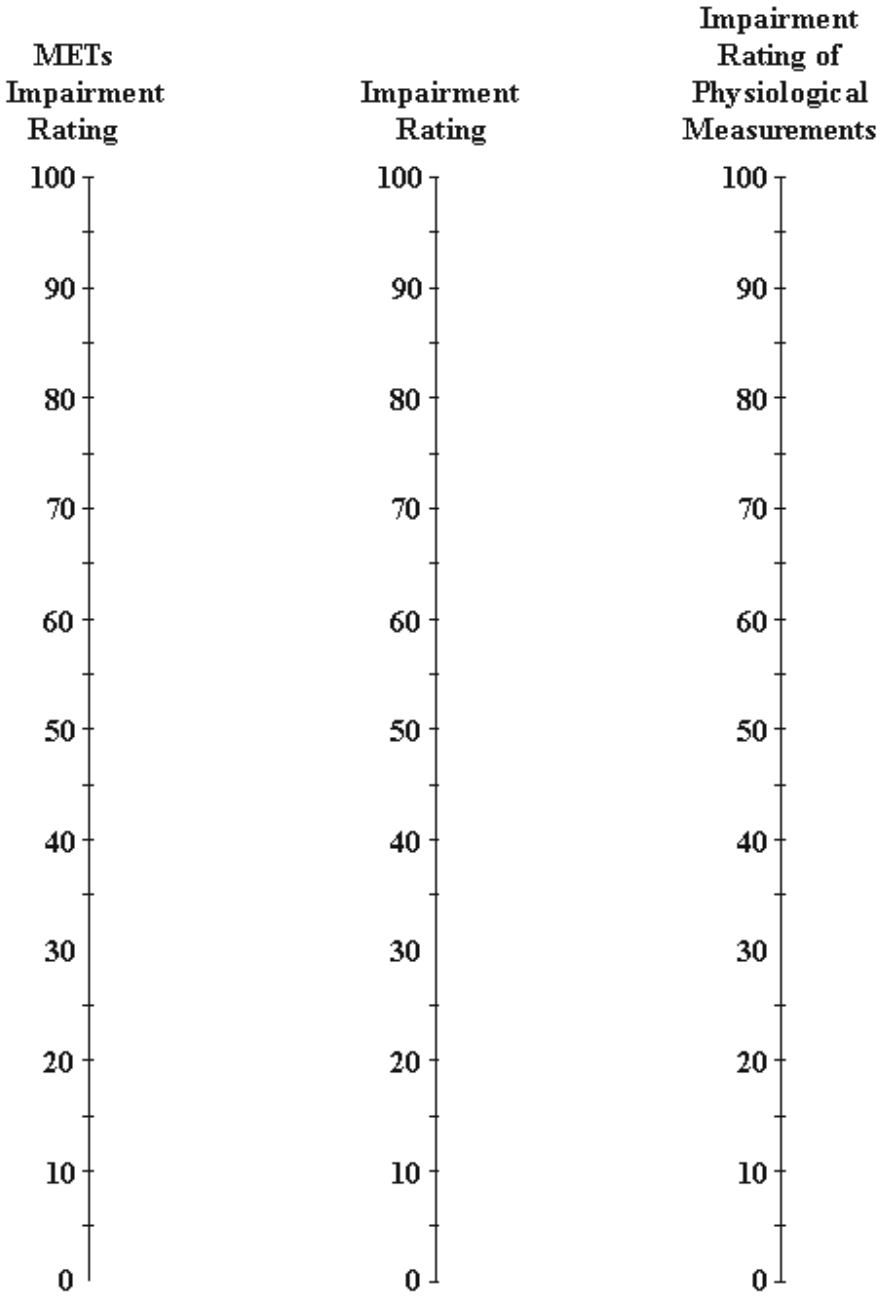
In applying these rules, both accepted and non-accepted cardiac and respiratory conditions are to be taken into account.

Only one rating for effort tolerance is to be given irrespective of the number of conditions that contribute to the relevant impairment.

Only one rating is to be given for physiological measurements of lung function irrespective of the number of conditions that contribute to the relevant impairment.

This single “total cardiorespiratory functional impairment” is due to the combined effect of all cardiorespiratory conditions whether accepted or not.

FIGURE 1c - LOSS OF REPIRATORY FUNCTION RESPIRATORY NOMOGRAM



This nomogram is to be used in accordance with the instructions in Step 5 and the procedural Table 1.5.

Results from this nomogram are to be rounded to the nearest five points. 2.5 is to be rounded up to 5 and 7.5 is to be rounded up to 10.

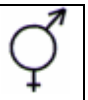
This nomogram corresponds to the formula:

$$\text{Impairment Rating} = \frac{\text{METs Impairment Rating} + \text{Impairment Rating of Physiological Measurement}}{2}$$

Step 6: Consider the effects of cardiac failure (if any).

For the purposes of assessment under this *Guide*, cardiac failure is considered to be a surrogate measure of cardiorespiratory impairment. When cardiac failure is present, the impairment rating calculated using effort tolerance will usually exceed any possible impairment rating from Table 1.6. Table 1.6 is of particular importance in assessing a veteran who is unable to be rated using effort tolerance because of significant conditions such as hemiplegia.

Functional Loss
Table 1.6



CARDIAC FAILURE

Impairment Ratings	Criteria
NIL	No cardiac failure; that is, neither symptoms nor X-ray evidence of cardiac failure.
TEN	• No symptoms, but X-ray evidence of early cardiac failure. • Evidence of right ventricular failure.
FIFTEEN	Left or biventricular cardiac failure demonstrated by ejection fraction of between 40% and 60% and persisting despite therapy.
TWENTY	Left or biventricular cardiac failure demonstrated on X-ray or by ejection fraction of less than or equal to 40% and persisting despite therapy.
Only one rating is to be selected from this table for any condition or combination of conditions. If more than one criterion applies, that which gives the higher or highest rating is to be chosen.	

No age adjustment allowed for this table

A rating from Table 1.6 is to be compared with the total cardiorespiratory functional impairment rating (obtained in Step 5) and the higher of the two is to be chosen.

Step 7: Moderate the total cardiorespiratory functional impairment rating to allow for effects of any non-accepted conditions.

Partially contributing impairment

If non-accepted conditions contribute to the impairment, Chapter 19 (Partially Contributing Impairment) is to be applied to determine impairment from the accepted conditions.

If cardiac conditions exist in the absence of respiratory disease: if there is more than one cardiac condition present (for example ischaemic heart disease and a valvular heart disease) and some are accepted and some are not accepted, then the total cardiorespiratory functional impairment rating must be moderated by applying Chapter 19 to determine the impairment due to the accepted condition.

If a respiratory condition exists in the absence of cardiac disease, the symptomatic activity level will generally be the exercise level (in METs) at which dyspnoea occurs. If there is more than one respiratory condition present and at least one is accepted and at least one is not accepted, then the total cardiorespiratory functional impairment rating must be moderated by applying Chapter 19 to determine the impairment due to the accepted condition or conditions.

If cardiac and respiratory conditions co-exist, and at least one is accepted and at least one is not accepted, it is necessary to determine the total cardiorespiratory functional impairment rating (as set out in the previous steps), and then to moderate that rating by applying Chapter 19 to determine the impairment due to the accepted condition.

The result that is then derived is the "total accepted cardiorespiratory functional impairment rating".

Step 8: Determine whether any ratings from the cardiorespiratory Other Impairment tables apply.

Cardiorespiratory Other Impairment tables

Once the total accepted cardiorespiratory functional impairment rating has been determined, it must be compared with the relevant cardiorespiratory Other Impairment tables. For assessment purposes, four categories of cardiorespiratory condition are recognised. These categories are:

- ischaemic heart disease;
- valvular heart disease;
- miscellaneous heart disease; and
- lower respiratory tract conditions.

There are four cardiorespiratory Other Impairment tables — corresponding to each of the above categories. These tables are:

Table 1.7 — Cardiorespiratory Impairment: Ischaemic;

Table 1.8 — Cardiorespiratory Impairment: Valvular;

Table 1.9 — Cardiorespiratory Impairment: Miscellaneous; and

Table 1.10 — Cardiorespiratory Impairment: Respiratory.

Only one rating is to be selected from each of these cardiorespiratory Other Impairment tables (Tables 1.7, 1.8, 1.9, and 1.10) for any condition or combination of conditions.

If accepted conditions belonging to more than one of the four categories of cardiorespiratory disease above are present, then the relative contribution of their effect on the total accepted cardiorespiratory functional impairment must be estimated by applying Chapter 20 (Apportionment). The rating for each condition will be the higher of the cardiorespiratory functional impairment rating attributed to it and its cardiorespiratory Other Impairment rating.

The cardiorespiratory worksheet (at page 29) should also be consulted.

Other Impairment
Table 1.7

CARDIORESPIRATORY IMPAIRMENT: ISCHAEMIC HEART DISEASE

Impairment Ratings	Criteria
NIL	No history of symptoms but evidence of transient ischaemia on exercise ECG testing.
TEN	• Coronary artery disease, characterised by typical history of angina pectoris. • Coronary artery disease, characterised by history of uncomplicated myocardial infarct, with no subsequent evidence of cardiac failure and infrequent or no angina. • Coronary artery disease, with single vessel disease (other than left main coronary) demonstrated on angiogram. • Coronary artery disease with successful coronary artery surgery, followed by no angina or only infrequent angina but no further infarcts or cardiac failure.
FIFTEEN	Coronary artery disease with multi-vessel disease (not successfully corrected) demonstrated on angiogram.
TWENTY	• Coronary artery disease characterised by a history of myocardial infarct followed, immediately or after a lapse of time, by continuing angina or further infarcts. • Coronary artery disease characterised by left main coronary artery disease (not successfully corrected) demonstrated on angiogram. • Coronary artery disease with successful coronary artery surgery, followed, after a lapse of time, by frequent angina or further infarcts or cardiac failure.
	Only one rating is to be selected from this table for any condition or combination of conditions. If more than one criterion applies, that which gives the higher or highest rating is to be chosen.

No age adjustment permitted for this table

Other Impairment
Table 1.8

CARDIORESPIRATORY IMPAIRMENT: VALVULAR HEART DISEASE

Impairment Ratings	Criteria
NIL	• Mitral valve prolapse with no or minimal symptoms. • Aortic sclerosis with no or minimal symptoms.
FIVE	Diagnosed valvular heart disease (other than mitral valve prolapse or aortic sclerosis) with no symptoms and no X-ray evidence of cardiac failure.
TEN	Valvular heart disease with successful valve replacement, not requiring anticoagulant medication, with no subsequent symptoms or evidence of cardiac failure.
FIFTEEN	Valvular heart disease with successful valve replacement, requiring anticoagulant medication, with no subsequent symptoms or evidence of cardiac failure.
	Only one rating is to be selected from this table for any condition or combination of conditions. If more than one criterion applies, that which gives the higher or highest rating is to be chosen.

No age adjustment permitted for this table

Other Impairment
Table 1.9

CARDIORESPIRATORY IMPAIRMENT: MISCELLANEOUS

Impairment Ratings	Criteria
NIL	Flow murmurs.
TWO	Chronic asymptomatic arrhythmia, eg. atrial fibrillation, atrial or ventricular ectopic beats.
FIVE	Need for a permanent pacemaker.
	Only one rating is to be selected from this table for any condition or combination of conditions. If more than one criterion applies, that which gives the higher or highest rating is to be chosen.

No age adjustment permitted for this table

Arrhythmias are usually to be rated by applying Chapter 15 (Intermittent Impairment) unless they cause a permanent restriction of exercise tolerance, in which case they are to be assessed by their effect on effort tolerance.

Other Impairment
Table 1.10

CARDIORESPIRATORY IMPAIRMENT: LOWER RESPIRATORY TRACT

Impairment Ratings	Criteria
NIL	Asymptomatic pleural plaques
TWO	• Recurrent lower respiratory infections (at least 6 per year) • Intermittent use of bronchodilator medication.
FIVE	• Daily use of inhaled steroids required. • Regular, daily use of bronchodilator medication. • Chronic cough, with production of at least 50mL sputum/day.
TEN	• Regular, daily use of bronchodilator medication required in addition to daily inhaled steroids. • Chronic cough, with production of at least 100 mL sputum/day.
TWENTY	Repeated courses (at least several courses per year) or permanent use of oral steroids required.
	Only one rating is to be selected from this table for any condition or combination of conditions. If more than one criterion applies, that which gives the higher or highest rating is to be chosen.

No age adjustment permitted for this table

Peripheral Vascular Conditions

Tables 1.2 and 1.3 are to be applied to assess those conditions that affect exercise tolerance from a cardiorespiratory point of view. Peripheral vascular conditions typically cause loss of function of the lower limbs only and therefore are to be assessed under lower limb impairment (using Chapter 3).

Atherosclerosis frequently causes both a cardiorespiratory condition and a peripheral vascular condition. In such cases, if both types of conditions are accepted conditions, then both conditions are to be rated using the appropriate assessment procedure.

The rating of asthma depends on the clinical circumstances. If asthma has caused chronic airways obstruction the method of assessment described in this chapter is to be applied. If there is little fixed obstruction and a large reversible component, the rating is to be based on the occurrence of attacks using the method of intermittent impairment (Chapter 15). Asthma can also be rated, if there is minimal loss of function, from Table 1.10.

Australian Government
Military Rehabilitation and Compensation Commission

Cardiorespiratory Worksheet

File No.

Veteran's given names

Veteran's surname

Condition(s) accepted for assessment

Veteran's height

Veteran's date of birth

Gender

METs Assessment

Date of report

Age

Limiting Symptoms =

METs level =

METs Impairment Rating = A

Lung Function Assessment

Date of test

Age

	FEV1	FVC	MEF 25-75
Actual			
Predicted			
(Act/Pred) × 100			
Impairment (Table 1.4)			

Physiological Impairment Rating (Use highest assessment value.) = B

Find the Accepted Functional Impairment from Values A and B by using Table 1.5.

Please note that Partially Contributing Impairment (Chapter 19) may need to be used in calculating the accepted functional impairment.

Was Chapter 19 used ? Yes ❒ No ❒

Accepted Functional Impairment = C

Category	D Relative contribution to Functional Impairment (as ratio)	E Functional Impairment for each category (by apportionment)	F Applicable Other Impairment Rating	G Final Rating for category (Greater of E and F)
Ischaemic				
Valvular				
Other cardiac				
Respiratory				

The ratings in column F are not rounded or combined at this stage. They are all carried forward to be combined in the final combining of all ratings. However, if all the ratings in Column G are obtained from Column E, then the accepted functional impairment rating (C) should be taken as the cardiorespiratory impairment rating instead of the various ratings in column G.

Signature | Name | Date

CHAPTER 2

HYPERTENSION AND NON-CARDIAC VASCULAR CONDITIONS

This Chapter contains three parts:

Part 2.1 — Hypertension

Part 2.2 — Vascular Conditions of the Lower Limbs

Part 2.3 — Other Non-Cardiac Vascular Conditions

INTRODUCTION

This chapter is to be applied in determining impairment ratings for hypertension and non-cardiac vascular conditions. For conditions affecting the heart itself refer to Chapter 1 (Cardiorespiratory Impairment).

PART 2.1: HYPERTENSION

Hypertension, of itself, does not affect effort tolerance. Therefore, uncomplicated hypertension is not to be assessed under Chapter 1 (Cardiorespiratory Impairment) but in the manner set out below.

Calculation of the impairment rating for hypertension

Follow the steps below to calculate the impairment rating for hypertension.

STEP 1	Establish whether any target organ damage is present.	Page 30
STEP 2	*(Omit this step if there is no target organ damage.)* Calculate the total functional impairment for any accepted target organ damage	Page 31
STEP 3	Calculate the Other Impairment rating for the accepted hypertension by applying Table 2.1.1.	Page 32
STEP 4	*(Omit this step if there is no target organ damage.)* Compare the rating obtained in Step 2 with the rating obtained in Step 3. Take the higher of these two ratings	Page 32

Step 1: Establish whether any target organ damage is present.

For the purposes of this chapter, “target organ damage” means any of the following:

- hypertensive retinopathy, grade III or IV;
- hypertensive cardiac disease, with ECG or X-ray evidence of left ventricular hypertrophy;
- hypertensive nephropathy demonstrated at biopsy, or by presence of proteinuria or elevated serum creatinine level; or
- hypertensive cerebral haemorrhage.

Certain other conditions have hypertension as a contributing factor in their aetiology (for example: ischaemic heart disease and peripheral vascular disease). Such conditions are not to be regarded as being target organ damage when applying Part 2.1.

Step 2: Calculate the total functional impairment due to any accepted target organ damage.

Accepted hypertensive retinopathy is to be assessed by applying Chapter 8.

If other ophthalmic conditions are present, they must be allowed for by applying Chapter 20 (Apportionment) or Chapter 19 (Partially Contributing Impairment) as appropriate.

Accepted hypertensive cardiac disease is to be assessed by applying Chapter 1.

If other cardiorespiratory conditions are present, they must be allowed for by applying Chapter 20 (Apportionment) or Chapter 19 (Partially Contributing Impairment) as appropriate.

Accepted hypertensive nephropathy is to be assessed by applying Chapter 9.

If other renal conditions are present, they must be allowed for by applying Chapter 20 (Apportionment) or Chapter 19 (Partially Contributing Impairment) as appropriate.

Accepted hypertensive cerebral haemorrhage is to be assessed according to the specific effects of the haemorrhage.

The impairment ratings attributable to the accepted target organ damage are to be combined by applying Chapter 18 (Combined Values Chart) to obtain the total impairment rating for accepted target organ damage.

Target organ damage that is not an accepted condition cannot be assessed under this *Guide*. Target organ damage can be assessed under this *Guide* only after it has been claimed and has become an accepted condition.

The criterion in Table 2.1.1 which refers to “hypertension of such a degree that target organ damage is present” is not an assessment of the target organ damage itself but is a measure of the severity of the hypertension.

Step 3: Determine an impairment rating for hypertension from Table 2.1.1.

Other Impairment
Table 2.1.1

HYPERTENSION

Impairment Ratings	Criteria
NIL	Hypertension adequately controlled by diet and weight loss without long-term medication.
TWO	Hypertension requiring long-term medication but without side-effects of the medication and with no evidence of target organ damage.
FIVE	• Hypertension with diastolic pressure consistently at or greater than 90 mm Hg despite treatment. • Hypertension: controlled but frequent minor side effects of medication which cause no loss of function.
TEN	• Hypertension: diastolic pressure consistently greater than 100 mm Hg. • Hypertension of such a degree that target organ damage is present. • Hypertension: controlled but with side effects of medication causing a significant and persistent loss of function.
	Only one rating is to be selected from this table.

No age adjustment permitted for this table

For the purpose of determining a rating of 10 impairment points from Table 2.1.1 (dot point 2) target organ damage has to be present *either* as an accepted condition *or* as a non-accepted condition.

Step 4: ***(Omit this step if is there is no target organ damage.)*** **Compare the rating obtained in Step 2 with the rating obtained in Step 3. Take the higher rating.**

The total impairment rating for accepted target organ damage is to be compared with any applicable rating from Table 2.1.1, and the higher of the two is to be taken as the impairment rating for the accepted hypertension.

Substep 4A	If the impairment rating from Table 2.1.1 is higher than the total rating for accepted target organ damage, the latter rating is to be discarded and its components are not to be used in any further calculations.
Substep 4B	If the impairment rating for accepted target organ damage is higher than the rating from Table 2.1.1, the rating from Table 2.1.1 is to be discarded and each of the components of the rating for accepted target organ damage is to be included in the final combining of all impairment ratings.

Impairment ratings from Table 2.1.1 are not routinely compared with ratings from the functional loss tables in Chapter 1 (Cardiorespiratory Impairment) except if hypertensive cardiomyopathy is present. Instead, they are to be compared with the impairment rating for the total loss of function due to target organ damage.

The total impairment rating for target organ damage is not to be combined with the impairment rating obtained from Table 2.1.1.

PART 2.2: VASCULAR CONDITIONS OF THE LOWER LIMBS

Each vascular condition of the lower limbs is characterised as belonging to one or more of three categories. These categories are:

- (arterial) peripheral vascular disease;
- varicose veins and vascular leg ulcers; and
- oedema.

Each category is to be assessed by applying a specific table from this part of the *Guide*. Depending on their effects, vascular conditions of the lower limbs may be rated under one or more of these tables.

Determination of the impairment rating for vascular conditions of the lower limbs

Follow the steps below to determine the impairment rating for each type of accepted vascular condition of the lower limbs.

(Each step is elaborated in the following pages.)

STEP 1	Establish whether any effect on lower limb function is present.	Page 34
STEP 2	Establish whether any effect on the skin is present.	Page 34
STEP 3	*(Omit this step if there is no effect on lower limb function)* Determine the impairment rating for the effects on lower limb function.	Page 34
STEP 4	*(Omit this step if there is no effect on skin)* Determine the impairment rating for the effects on the skin.	Page 34
STEP 5	Determine the Other Impairment rating for the vascular conditions of the lower limbs by applying Tables 2.2.1, 2.2.2, and 2.2.3.	Page 34
STEP 6	Combine the impairment ratings obtained in Steps 3 and 4.	Page 36
STEP 7	Combine the impairment ratings obtained in Step 5.	Page 36
STEP 8	Compare the impairment ratings obtained in Steps 6 and 7.	Page 36
STEP 9	If the comparison made in Step 8 shows that the impairment rating obtained in Step 6 is greater than the impairment rating obtained in Step 7, then the ratings obtained in Steps 3 and 4 are the final impairment ratings for the vascular condition.	Page 36
STEP 10	If the comparison made in Step 8 shows that the impairment rating obtained in Step 7 is greater than the impairment rating obtained in Step 6, then the separate ratings that have been combined in Step 5 are the final impairment rating(s) for the vascular condition.	Page 37

Step 1: Establish whether any effect on lower limb function is present.

Lower limb function may be affected by peripheral vascular disease. If peripheral vascular disease is present, the veteran's walking distance is likely to be reduced as a result of intermittent claudication (cramplike pain in the calves of the legs).

Step 2: Establish whether any effect on the skin is present.

Varicose veins can affect the skin of the lower limbs. They may cause discolouration or pruritus (itching). Excoriations (scratch marks) may be present.

Step 3: *(Omit this step if there is no effect on lower limb function.)* Determine the impairment rating for the effects on lower limb function.

Lower Limb Function is to be assessed by applying Chapter 3 (Impairment of Spine And Limbs) — Part 3.2. If other conditions affecting lower limb function are present, they must be allowed for by applying Chapter 20 (Apportionment) or Chapter 19 (Partially Contributing Impairment) as appropriate.

The effects of vascular conditions of the lower limbs on lower limb function are taken to be symptoms or manifestations of the condition. Hence, they are to be assessed as part of the vascular condition of the lower limbs.

Step 4: *(Omit this step if there is no effect on the skin.)* Determine the impairment rating for the effects on the skin.

Skin conditions are to be assessed by applying Chapter 11 (Skin Impairment). If other conditions affecting the skin are present, they must be allowed for by applying Chapter 20 (Apportionment) or Chapter 19 (Partially Contributing Impairment) as appropriate.

The effects of vascular conditions of the lower limbs on the skin of the lower limbs are taken to be symptoms or manifestations of the condition. Hence, they are to be assessed as part of the vascular condition of the lower limb.

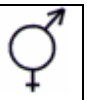
Step 5: Determine the Other Impairment rating for the vascular conditions of the lower limbs by applying Tables 2.2.1, 2.2.2, and 2.2.3.

There are three Other Impairment tables relating to the effects of vascular conditions of the lower limbs. A condition may be rated under more than one table if appropriate. However, only one rating may be taken from each table irrespective of how many conditions contribute to the type of impairment to which that table relates.

The three Other Impairment tables are:
Table 2.2.1 — (Arterial) Peripheral Vascular Disease
Table 2.2.2 — Varicose Veins
Table 2.2.3 — Oedema.

Amputations arising from peripheral vascular disease cannot be assessed unless they have been separately accepted. They can then be assessed under Chapter 3 (Impairment of Spine and Limbs).

Other Impairment
Table 2.2.1



(ARTERIAL) PERIPHERAL VASCULAR DISEASE

Impairment Ratings	**Criteria**
NIL	No peripheral vascular disease is present.
TWO	Minor peripheral vascular disease or peripheral vascular disease that has been successfully treated.
FIVE	Moderate peripheral vascular disease is present but causes little restriction of activities.
TEN	Severe peripheral vascular disease, the expected effects of which are masked by a non-accepted condition (eg, masked by restriction on walking due to a musculoskeletal disorder).
	Irrespective of whether one or two legs are affected, only one rating may be selected from this table.

No age adjustment permitted for this table

Other Impairment
Table 2.2.2

VARICOSE VEINS

Impairment Ratings	**Criteria**
NIL	• Varicose veins which are not greatly disfiguring, which cause only trivial symptoms, and which impose no significant restriction on activities. • Superficial, small or transient ulceration.
TWO	Varicose veins which are unsightly or even gross but which impose no significant restriction on activities.
FIVE	Varicose veins, varicose ulcers — causing constant or almost constant symptoms which are not easily tolerated and require medication or therapy.
TEN	Very severe varicose veins or ulceration — difficult to control and requiring periodic confinement or hospital admissions.
	Irrespective of whether one or two legs are affected, only one rating may be selected from this table.

No age adjustment permitted for this table

Other Impairment
Table 2.2.3

OEDEMA

Impairment Ratings	Criteria
NIL	Mild or transient oedema.
FIVE	Moderate and persistent oedema.
TEN	Marked oedema, that is only partly controlled by treatment or therapy.
	Irrespective of whether one or two legs are affected, only one rating may be selected from this table.

No age adjustment permitted for this table

An impairment rating from this table may be given in addition to an impairment rating from Chapter 1 even when both arise from the same condition (eg, heart failure).

Step 6: Combine the impairment ratings obtained in Steps 3 and 4.

If ratings were obtained both in Step 3 and in Step 4, then the ratings are to be combined. This combining is for the purpose of the comparison to be made in Step 8. If only one rating has been given in Steps 3 and 4, then the result to be obtained in Step 6 is to be the same as the one rating given in either Step 3 or Step 4.

Step 7: Combine the impairment ratings obtained in Step 5.

If more than one rating has been given in Step 5 then the ratings are to be combined. This combining is for the purpose of the comparison to be made in Step 8. If only one rating has been given in Step 5, then the result to be obtained in Step 7 is to be the same as the result obtained in Step 5.

Step 8: Compare the impairment ratings obtained in Steps 6 and 7.

Step 9: If the comparison made in Step 8 shows that the impairment rating obtained in Step 6 is higher than the impairment rating obtained in Step 7, then the ratings obtained in Steps 3 and 4 are the final impairment ratings for the vascular condition.

If more than one rating was obtained in Steps 3 and 4 those ratings are not to be combined at this stage, but each is to be included in the final combining of all ratings.

Step 10:	**If the comparison made in Step 8 shows that the impairment rating obtained in Step 7 is higher than the impairment rating obtained in Step 6, then the rating(s) obtained in Step 5 are the final impairment rating(s) for the vascular condition.**

If more than one rating was obtained in Step 5 those ratings are not to be combined at this stage, but each is to be included in the final combining of all ratings.

PART 2.3: OTHER NON-CARDIAC VASCULAR CONDITIONS

This Part is to be applied for a variety of vascular conditions not covered elsewhere in the *Guide*.

Other Impairment
Table 2.3.1

ANEURYSMS AND INTRA-VASCULAR CONDITIONS

Impairment Ratings	**Criteria**
NIL	No aneurysms or intra-vascular conditions present.
TWO	• Aortic aneurysm of diameter less than 6 cm. • Renal artery stenosis. • Iliac or femoral or carotid aneurysms.
FIVE	• Embolus requiring anticoagulant medication. • Non-valvular vascular conditions requiring anti-coagulant medication. • Aortic aneurysm of 6 cm diameter or more. • Aortic aneurysm surgically corrected.
TEN	Other vascular conditions (eg. severe deep venous thrombosis) that are difficult to control.
	The impairment from any single condition can only receive one rating from this table. If the impairment from a given condition (eg, an aortic aneurysm) satisfies more than one criterion, it is to be given only the highest applicable rating.

No age adjustment permitted for this table

Aneurysms, atherosclerosis, and cerebrovascular disease

Impairment from atherosclerosis is to be rated by applying the appropriate tables in Chapter 1, Part 2.2 of Chapter 2, and Chapter 5 (Neurological Impairment) according to the losses of function or other impairments which it causes.

Impairment from cerebral aneurysms and cerebrovascular disease is to be rated by applying Chapter 5 (Neurological Impairment) and any other applicable chapter, according to the other effects of the cerebrovascular disease.