



Australian Government
Repatriation Medical Authority

Statement of Principles
concerning
FRACTURE
(Reasonable Hypothesis)
(No. 94 of 2015)

The Repatriation Medical Authority determines the following Statement of Principles under subsection 196B(2) of the *Veterans' Entitlements Act 1986*.

Dated 21 August 2015

The Common Seal of the
Repatriation Medical Authority
was affixed to this instrument
at the direction of:

A handwritten signature in black ink, appearing to read 'Nicholas Saunders'.

Professor Nicholas Saunders AO
Chairperson

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1 Name

This is the Statement of Principles concerning *fracture (Reasonable Hypothesis)* (No. 94 of 2015).

2 Commencement

This instrument commences on **21 September 2015**.

3 Authority

This instrument is made under subsection 196B(2) of the *Veterans' Entitlements Act 1986*.

4 Revocation

The Statement of Principles concerning fracture No. 53 of 2006 made under subsection 196B(2) of the VEA is revoked.

5 Application

This instrument applies to a claim to which section 120A of the VEA or section 338 of the *Military Rehabilitation and Compensation Act 2004* applies.

6 Definitions

The terms defined in the Schedule 1 - Dictionary have the meaning given when used in this instrument.

7 Kind of injury, disease or death to which this Statement of Principles relates

(1) This Statement of Principles is about fracture and death from fracture.

Meaning of fracture

(2) For the purposes of this Statement of Principles, fracture:

- (a) means an acquired break or rupture of bone; and
- (b) excludes spondylolysis.

Death from fracture

(3) For the purposes of this Statement of Principles, fracture, in relation to a person, includes death from a terminal event or condition that was contributed to by the person's fracture.

Note: *terminal event* is defined in the Schedule 1 – Dictionary.

8 Basis for determining the factors

The Repatriation Medical Authority is of the view that there is sound medical-scientific evidence that indicates that fracture and death from fracture can be related to relevant service rendered by veterans, members of Peacekeeping Forces, or members of the Forces under the VEA, or members under the MRCA.

Note: *relevant service* is defined in the Schedule 1 – Dictionary.

9 Factors that must exist

At least one of the following factors must as a minimum exist before it can be said that a reasonable hypothesis has been raised connecting fracture or death from fracture with the circumstances of a person's relevant service:

- (1) having physical trauma to the affected bone at the time of the clinical onset of fracture;
- (2) for stress fracture only, having repetitive loading stress to the affected region of the body at the time of the clinical onset of fracture;

Note: *repetitive loading stress* is defined in the Schedule 1 - Dictionary.

- (3) for stress fracture of the lower limb only, having a significant biomechanical abnormality affecting the lower limb at the time of the clinical onset of fracture;

Note: *significant biomechanical abnormality* is defined in the Schedule 1 - Dictionary.

- (4) having Paget's disease of bone involving the affected region of bone at the time of the clinical onset of fracture;
- (5) having osteoporosis involving the affected region of bone at the time of the clinical onset of fracture;
- (6) having osteomalacia involving the affected region of bone at the time of the clinical onset of fracture;

Note: *osteomalacia* is defined in the Schedule 1 - Dictionary.

- (7) having osteonecrosis involving the affected region of bone at the time of the clinical onset of fracture;

Note: *osteonecrosis* is defined in the Schedule 1 - Dictionary.

- (8) having osteomyelitis involving the affected region of bone at the time of the clinical onset of fracture;
- (9) having a malignant neoplasm involving the affected region of bone at the time of the clinical onset of fracture;
- (10) having a benign neoplasm involving the affected region of bone at the time of the clinical onset of fracture;

- (11) having osteogenesis imperfecta at the time of the clinical onset of fracture;
- (12) for minimal trauma fracture only:
 - (a) smoking at least 20 pack-years of cigarettes, or the equivalent thereof in other tobacco products, before the clinical onset of fracture, and where smoking has ceased, the clinical onset of fracture has occurred within ten years of cessation;
 - (b) drinking at least 55 kilograms of alcohol within the five years before the clinical onset of fracture;
 - (c) having diabetes mellitus at the time of the clinical onset of fracture;
 - (d) being infected with human immunodeficiency virus at the time of the clinical onset of fracture;
 - (e) being treated with a glucocorticoid drug as specified before the clinical onset of fracture;
 - (f) having rheumatoid arthritis at the time of the clinical onset of fracture;
 - (g) being treated with an aromatase inhibitor before the clinical onset of fracture;
 - (h) being treated with a proton pump inhibitor for at least six months, within the three years before the clinical onset of fracture; or
 - (i) having chronic infection with the hepatitis C virus at the time of the clinical onset of fracture;

Note: *alcohol, chronic infection with the hepatitis C virus, glucocorticoid drug as specified, minimal trauma fracture and pack-years of cigarettes, or the equivalent thereof in other tobacco products* are defined in the Schedule 1 - Dictionary.

- (13) having physical trauma to the affected bone at the time of the clinical worsening of fracture;
- (14) for stress fracture only, having repetitive loading stress to the affected region of the body at the time of the clinical worsening of fracture;
Note: *repetitive loading stress* is defined in the Schedule 1 - Dictionary.
- (15) having osteonecrosis involving the affected region of bone at the time of the clinical worsening of fracture;
Note: *osteonecrosis* is defined in the Schedule 1 - Dictionary.
- (16) having osteomyelitis involving the affected region of bone at the time of the clinical worsening of fracture;
- (17) having osteogenesis imperfecta at the time of the clinical worsening of fracture;
- (18) having diabetes mellitus at the time of the clinical worsening of fracture;

- (19) being infected with human immunodeficiency virus at the time of the clinical worsening of fracture;
- (20) being treated with a glucocorticoid drug as specified before the clinical worsening of fracture;
*Note: **glucocorticoid drug as specified** is defined in the Schedule 1 - Dictionary.*
- (21) having rheumatoid arthritis at the time of the clinical worsening of fracture;
- (22) being treated with an aromatase inhibitor before the clinical worsening of fracture;
- (23) inability to obtain appropriate clinical management for fracture.

10 Relationship to service

- (1) The existence in a person of any factor referred to in section 9 must be related to the relevant service rendered by the person.
- (2) The factors set out in subsections 9(13) to 9(23) apply only to material contribution to, or aggravation of, fracture where the person's fracture was suffered or contracted before or during (but did not arise out of) the person's relevant service.

11 Factors referring to an injury or disease covered by another Statement of Principles

In this Statement of Principles:

- (1) if a factor referred to in section 9 applies in relation to a person; and
- (2) that factor refers to an injury or disease in respect of which a Statement of Principles has been determined under subsection 196B(2) of the VEA;

then the factors in that Statement of Principles apply in accordance with the terms of that Statement of Principles as in force from time to time.

Schedule 1 - Dictionary

Note: See Section 6

1 Definitions

In this instrument:

alcohol is measured by the alcohol consumption calculations utilising the Australian Standard of ten grams of alcohol per standard alcoholic drink.

chronic infection with the hepatitis C virus means:

- (a) positive polymerase chain reaction testing for hepatitis C virus (HCV) ribonucleic acid (RNA);
- (b) the presence of anti-HCV and elevated serum aminotransferase levels, more than six months after evidence of an acute hepatitis C infection; or
- (c) positive serology for hepatitis C plus evidence of chronic hepatitis or other chronic changes on liver biopsy.

fracture—see subsection 7(2).

glucocorticoid drug as specified means any of the corticosteroid drugs listed in the following table, in the specified combinations of administration, dose level and duration of treatment:

Drug or Class of Drugs	Mode*	Dose	Minimum Duration of Treatment	Duration
prednisolone or pharmacologically equivalent glucocorticoid	IV, IM, O	≥ 0.5 grams over 6 months	6 months	within the 5 years
		≥ 3 grams	NS	within the 10 years
		≥ 10 grams	NS	NS

Abbreviations: IV = intravenous; IM = intramuscular; O = oral; NS = not specified.

minimal trauma fracture means a fracture that results from mechanical forces that would not ordinarily result in a fracture.

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

osteomalacia means a disease of bone in which there is a reduction in the mineralisation of its organic matrix and bone softening, due to a deficiency of vitamin D or problems with the metabolism of vitamin D.

osteonecrosis means a disease of bone where death of bone tissue occurs as a result of the temporary or permanent loss of blood supply to bone. Osteonecrosis is also known as avascular necrosis, aseptic necrosis or ischaemic necrosis.

pack-years of cigarettes, or the equivalent thereof in other tobacco products means a calculation of consumption where one pack-year of cigarettes equals 20 tailor-made cigarettes per day for a period of one calendar year, or 7 300 cigarettes. One tailor-made cigarette approximates one gram of tobacco or one gram of cigar or pipe tobacco by weight. One pack-year of tailor-made cigarettes equates to 7.3 kilograms of smoking tobacco by weight. Tobacco products mean cigarettes, pipe tobacco or cigars, smoked alone or in any combination.

relevant service means:

- (a) operational service under the VEA;
- (b) peacekeeping service under the VEA;
- (c) hazardous service under the VEA;
- (d) British nuclear test defence service under the VEA;
- (e) warlike service under the MRCA; or
- (f) non-warlike service under the MRCA.

repetitive loading stress means ongoing physical activity which involves at least a moderate level of weight bearing exercise such as speed walking, jogging, athletics or running, or weight training for the upper limbs.

significant biomechanical abnormality means an abnormality that causes significant alteration of biomechanical forces such as would occur in osteoarthritis with deformity, forefoot varus or leg-length discrepancy.

terminal event means the proximate or ultimate cause of death and includes the following:

- (a) pneumonia;
- (b) respiratory failure;
- (c) cardiac arrest;
- (d) circulatory failure; or
- (e) cessation of brain function.

VEA means the *Veterans' Entitlements Act 1986*.