



Australian Government
Repatriation Medical Authority

Statement of Principles
concerning
POPLITEAL ENTRAPMENT SYNDROME
(Reasonable Hypothesis)
(No. 54 of 2017)

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

Dated 18 August 2017

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 *popliteal entrapment syndrome (Reasonable Hypothesis)* (No. 54 of 2017).

2 Commencement

This instrument commences on 18 September 2017.

3 Authority

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

4 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.

5 Definitions

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

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

- (1) This Statement of Principles is about popliteal entrapment syndrome and death from popliteal entrapment syndrome.

Meaning of popliteal entrapment syndrome

- (2) For the purposes of this Statement of Principles, popliteal entrapment syndrome means an acquired or congenital, partial or complete occlusion of the popliteal artery in the popliteal fossa, occurring during plantar flexion, in the presence of:
 - (a) symptoms of intermittent lower limb claudication, exercise-induced leg pain, paraesthesia, or lower limb ischaemia, in the absence of other identifiable vascular risk factors that can account for those symptoms; and
 - (b) appropriate clinical imaging studies that confirm partial or complete occlusion.

Note 1: Popliteal entrapment syndrome may cause intimal damage, thrombosis, distal embolism, post-stenotic dilation or aneurysm of the popliteal artery. Popliteal artery entrapment may be accompanied by compression of the popliteal vein or tibial nerve. Aberrant anatomy of a musculotendinous structure in the popliteal fossa may be present.

Note 2: Appropriate clinical imaging studies include Doppler ultrasonography, static or dynamic magnetic resonance imaging/magnetic resonance angiography, computed tomography angiography, conventional catheter-based angiography with provocation, and intravascular ultrasound.

Death from popliteal entrapment syndrome

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

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

7 Basis for determining the factors

The Repatriation Medical Authority is of the view that there is sound medical-scientific evidence that indicates that popliteal entrapment syndrome and death from popliteal entrapment syndrome 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.

8 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 popliteal entrapment syndrome or death from popliteal entrapment syndrome with the circumstances of a person's relevant service:

- (1) running or jogging an average of at least 20 kilometres per week for the six months before the clinical onset of popliteal entrapment syndrome;
- (2) undertaking vigorous physical activity involving repeated active plantar flexion of the foot of the affected leg, or repetitive sudden and forceful contraction of the calf of the affected leg, at a minimum intensity of six METs, for an average of at least 20 hours per week for a continuous period of at least the six months before the clinical onset of popliteal entrapment syndrome;

Note 1: Vigorous physical activity may include driving heavy vehicles, martial arts, physical training, and sports such as rugby, soccer, basketball, rowing or cycling. Patients typically have hypertrophy of the plantar flexor muscles, including the gastrocnemius, soleus and plantaris muscles.

Note 2: *MET* is defined in the Schedule 1 - Dictionary.

- (3) having trauma to the affected limb, involving the popliteal fossa and displacing the popliteal artery, within the five years before the clinical onset of popliteal entrapment syndrome;
- (4) having a disease involving the popliteal fossa and displacing the popliteal artery, at the time of the clinical onset of popliteal entrapment syndrome;

Note: *disease involving the popliteal fossa* is defined in the Schedule 1 - Dictionary.

- (5) running or jogging an average of at least ten kilometres per week for the three months before the clinical worsening of popliteal entrapment syndrome;
- (6) undertaking vigorous physical activity involving repeated active plantar flexion of the foot of the affected leg, or repetitive sudden and forceful contraction of the calf of the affected leg, at a minimum intensity of six METs, for an average of at least 20 hours per week for a continuous period of at least the three months before the clinical worsening of popliteal entrapment syndrome;

Note 1: Vigorous physical activity may include driving heavy vehicles, martial arts, physical training, and sports such as rugby, soccer, basketball, rowing or cycling. Patients typically have hypertrophy of the plantar flexor muscles, including the gastrocnemius, soleus and plantaris muscles.

Note 2: *MET* is defined in the Schedule 1 - Dictionary.

- (7) having trauma to the affected limb, involving the popliteal fossa and displacing the popliteal artery, within the five years before the clinical worsening of popliteal entrapment syndrome;
 - (8) having a disease involving the popliteal fossa and displacing the popliteal artery, at the time of the clinical worsening of popliteal entrapment syndrome;
- Note: *disease involving the popliteal fossa* is defined in the Schedule 1 - Dictionary.
- (9) inability to obtain appropriate clinical management for popliteal entrapment syndrome.

9 Relationship to service

- (1) The existence in a person of any factor referred to in section 8, must be related to the relevant service rendered by the person.
- (2) The factors set out in subsections 8(5) to 8(9) apply only to material contribution to, or aggravation of, popliteal entrapment syndrome where the person's popliteal entrapment syndrome was suffered or contracted before or during (but did not arise out of) the person's relevant service.

10 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 8 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 5

1 Definitions

In this instrument:

disease involving the popliteal fossa means any pathological condition causing anatomical distortion of the popliteal fossa.

Note: Examples of a disease involving the popliteal fossa include a primary or secondary neoplasm within the knee joint or the long bones of the leg, or a popliteal (Baker's) cyst.

MET means a unit of measurement of the level of physical exertion. 1 MET = 3.5 ml of oxygen/kg of body weight per minute, 1.0 kcal/kg of body weight per hour or resting metabolic rate.

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

popliteal entrapment syndrome—see subsection 6(2).

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.

Note: ***MRCA*** and ***VEA*** are also defined in the Schedule 1 - Dictionary.

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*.