



Australian Government  
Repatriation Medical Authority

Statement of Principles  
concerning

**PULMONARY BAROTRAUMA**

**No. 15 of 2015**

for the purposes of the

*Veterans' Entitlements Act 1986*  
and

*Military Rehabilitation and Compensation Act 2004*

**Title**

1. This Instrument may be cited as Statement of Principles concerning pulmonary barotrauma No. 15 of 2015.

**Determination**

2. The Repatriation Medical Authority under subsection **196B(2)** and **(8)** of the *Veterans' Entitlements Act 1986* (the VEA):
  - (a) revokes Instrument No. 45 of 2006 concerning pulmonary barotrauma; and
  - (b) determines in its place this Statement of Principles.

**Kind of injury, disease or death**

3.
  - (a) This Statement of Principles is about **pulmonary barotrauma** and **death from pulmonary barotrauma**.
  - (b) For the purposes of this Statement of Principles, "**pulmonary barotrauma**" means an acute lung injury arising from inequalities in the barometric pressure across the alveolar membrane, in which the rupture of the alveolar walls gives rise to extra-alveolar air that may present as pneumothorax, pneumomediastinum, subcutaneous emphysema or arterial gas embolism. Pulmonary barotrauma is also known as burst lung.

### **Basis for determining the factors**

4. The Repatriation Medical Authority is of the view that there is sound medical-scientific evidence that indicates that **pulmonary barotrauma** and **death from pulmonary barotrauma** 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 *Military Rehabilitation and Compensation Act 2004* (the MRCA).

### **Factors that must be related to service**

5. Subject to clause 7, at least one of the factors set out in clause 6 must be related to the relevant service rendered by the person.

### **Factors**

6. The factor that must as a minimum exist before it can be said that a reasonable hypothesis has been raised connecting **pulmonary barotrauma** or **death from pulmonary barotrauma** with the circumstances of a person's relevant service is:
  - (a) experiencing an abrupt change in ambient barometric pressure, within the three days before the clinical onset of pulmonary barotrauma; or
  - (b) receiving artificial ventilation at the time of the clinical onset of pulmonary barotrauma; or
  - (c) sustaining a blast injury involving the chest at the time of the clinical onset of pulmonary barotrauma; or
  - (d) smoking alkaloidal ('crack') cocaine or inhaling powdered cocaine within the three days before the clinical onset of pulmonary barotrauma; or
  - (e) inability to obtain appropriate clinical management for pulmonary barotrauma.

### **Factors that apply only to material contribution or aggravation**

7. Paragraph 6(e) applies only to material contribution to, or aggravation of, pulmonary barotrauma where the person's pulmonary barotrauma was suffered or contracted before or during (but not arising out of) the person's relevant service.

### **Inclusion of Statements of Principles**

8. In this Statement of Principles if a relevant factor applies and that factor includes an injury or disease in respect of which there is a Statement of Principles then the factors in that last mentioned Statement of Principles apply in accordance with the terms of that Statement of Principles as in force from time to time.

## Other definitions

9. For the purposes of this Statement of Principles:

**"an abrupt change in ambient barometric pressure"** means a sudden reduction or increase in the pressure exerted by the envelope of air or water surrounding the person, occurring with:

- (a) ascending from a submerged craft or device, or a pressurised tunnel or caisson;
- (b) decompression after being compressed in a hyperbaric chamber;
- (c) decompression in a hypobaric chamber;
- (d) flying; or
- (e) underwater diving;

**"artificial ventilation"** means a method to assist or replace spontaneous breathing, which may involve a mechanically-controlled ventilator, manually-assisted bag ventilation of an intubated patient, or expired air resuscitation;

**"death from pulmonary barotrauma"** in relation to a person includes death from a terminal event or condition that was contributed to by the person's pulmonary barotrauma;

**"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;

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

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

## Application

10. This Instrument applies to all matters to which section 120A of the VEA or section 338 of the MRCA applies.

**Date of effect**

11. This Instrument takes effect from 27 January 2015.

Dated this **nineteenth** day of **December** 2014

The Common Seal of the  
Repatriation Medical Authority  
was affixed at the direction of: )  
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PROFESSOR NICHOLAS SAUNDERS AO  
CHAIRPERSON