Specialist Medical Review Council

Declaration and Reasons for Decisions

Section 380C

Military Rehabilitation and Compensation Act 2004

Re: The decision by the Repatriation Medical Authority not to make Statements of Principles concerning blast induced mild traumatic brain injury

Request for Review Declaration No. 38

1. In relation to the Repatriation Medical Authority decision of **15 August 2025**, made under subsection 196B(6) of the *Veterans' Entitlements Act 1986* not to make a Statement of Principles concerning **blast induced mild traumatic brain injury**, the Specialist Medical Review Council (the Council) under subsection 380C(5)(b) of the *Military Rehabilitation and Compensation Act 2004*:

   DECLARES that there was insufficient sound medical-scientific evidence on which the Repatriation Medical Authority could have relied to make a Statements of Principles concerning **blast induced mild traumatic brain injury**; and

2. RECOMMENDS the Repatriation Medical Authority to carry out an investigation to find out if there is new information available about whether poor brain health may be suffered, and in particular, whether exposure to **repetitive blast overpressure** may be connected to **a chronic brain health condition** and the extent to which that may be a service injury, a service disease or a service death.

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REASONS FOR DECISIONS

INTRODUCTION

1. In relation to the Repatriation Medical Authority 15 August 2025 declaration that it does not propose to make a Statement of Principles concerning blast induced mild traumatic brain injury, for subsection 196B(6) of the *Veterans' Entitlements Act 1986*, this document outlines the Reasons for Decisions (the Reasons) for the declaration and recommendation made by the Specialist Medical Review Council (the Council) regarding blast induced mild traumatic brain injury.

2. This section of the Reasons will introduce the role of the Council, the events that led to a review of these Statements of Principles by the Council, and the types of information and how they were considered in this review.

3. On 1 July 2026, Schedule 5 of the *Veterans' Entitlements, Treatment and Support (Simplification and Harmonisation) Act 2025* transferred governance of the Council as an independent statutory authority from the *Veterans' Entitlements Act 1986* (as in force to 30 June 2026) to the *Military Rehabilitation and Compensation Act 2004*. Any decisions of the Council made on or after 1 July 2026 are now made under the *Military Rehabilitation and Compensation Act 2004.*

4. In general terms, upon receipt of a valid application, the Council is to review, as relevant:

   – the contents of Statement/s of Principles in respect of a particular kind of injury, disease or death; or

   – a decision of the Repatriation Medical Authority not to determine, not to amend, Statement/s of Principles in respect of a particular kind of injury, disease or death.

5. In response to a request from a Veteran organisation to create a new set of Statements of Principles for blast induced mild traumatic brain injury on 3 January 2025, the Repatriation Medical Authority investigated determining Statements of Principles for blast induced mild traumatic brain injury. On 15

August 2025, the Repatriation Medical Authority declared that it does not propose to make a Statement of Principles concerning blast induced mild traumatic brain injury, for subsection 196B(6) of the *Veterans' Entitlements Act 1986*. The Repatriation Medical Authority was of the view that the sound medical and scientific evidence was insufficient to enable it to determine a causal link between low-level blast exposure and enduring neurocognitive impairment in the absence of acute symptoms of traumatic brain injury, either on the basis of reasonable hypothesis or balance of probability.

6. On 9 September 2025, representation from the Repatriation Commission and the Military Rehabilitation and Compensation Commission (the Commissions) as eligible parties under Section 196Y of the *Veterans' Entitlements Act 1986* requested the Council to conduct a review of the 15 August 2025 declaration of the Repatriation Medical Authority that it did not propose to make Statements of Principles concerning blast induced mild traumatic brain injury for subsection 196b(2) or (3) of the *Veterans' Entitlements Act 1986*.

7. On 20 October 2025, the Council gave notice under section 196ZB of the *Veterans' Entitlements Act 1986* that it intended to carry out a review under section 196W of the *Veterans' Entitlements Act 1986* of all the information available to the Repatriation Medical Authority when it made the 15 August 2025 declaration concerning blast induced mild traumatic brain injury.

8. In conducting a review, the Council must review all of the information (and only that information) that was available to the Repatriation Medical Authority when it made the decision under review. This is information the Repatriation Medical Authority actually used, as opposed to information that was generally available but not accessed by the Repatriation Medical Authority. A list of the information that was available to the Repatriation Medical Authority is listed in Table 1 of **Appendix A**.

9. Fundamental to Statements of Principles, and so to a Council review, is the concept of sound medical-scientific evidence, as that term is defined in section 370CA of the *Military Rehabilitation and Compensation Act 2004*[1].

10. The information to which the Applicant referred, being information which the Repatriation Medical Authority advised was new information, that is, information which was not available to the Repatriation Medical Authority at the relevant times, and so was not considered by the Council in reaching its review decision, is listed in Table 2 of **Appendix A**.

11. **Appendix B** sets out further details regarding the composition of the Council for this review and the legislation relating to the making of Statements of Principles.

COUNCIL'S DECISION ON THE SCOPE OF REVIEW

12. The Commissions, in their application, sought review of the Repatriation Medical Authority declaration on 15 August 2025 that it did not propose to make Statements of Principles concerning blast induced mild traumatic brain injury. The Commissions stated that given the significant interest and concern among the Veteran community regarding the emerging evidence

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[1] The SMSE is a subset of the available information. It comprises those articles which the Council considers:

a) are relevant to the matters within the proposed scope of review, and

b) satisfy the definition in the Military Rehabilitation and Compensation Act 2004 (MRCA) of 'sound medical-scientific evidence'.

Sound medical-scientific evidence is defined in section 370CA of the MRCA as follows:

"Information about a particular kind of injury, disease or death is taken to be sound medical-scientific evidence if:

a) the information:

(i) is consistent with material relating to medical-science that has been published in a medical or scientific publication and has been, in the opinion of the Repatriation Medical Authority, subjected to a peer review process; or

(ii) in accordance with generally accepted medical practice, would serve as the basis for the diagnosis and management of a medical condition; and

b) in the case of information about how that kind of injury, disease or death may be caused – meets the applicable criteria for assessing causation currently applied in the field of epidemiology.

The later requirement is held to mean 'appropriate to be taken into account by epidemiologists'.

base pointing to the potential for repetitive low-level blast exposures to have health consequences, it would like to be certain that all possible reviews and analyses of the issue have been undertaken.

13. The Council, when reviewing the relevant sound medical-scientific evidence, must determine whether or not that evidence indicates a reasonable hypothesis connecting the particular injury, disease or death to the relevant service.

14. In a reasonable hypothesis, the evidence 'points to' as opposed to merely 'leaves open' a link between injury, disease or death and the relevant service. In a reasonable hypothesis, the link is not ‘obviously fanciful, impossible, incredible or not tenable or too remote or too tenuous.’[2]

15. If the Council is of the opinion that a reasonable hypothesis has been raised, members then determine, in addition, whether a connection exists to relevant service on the balance of probabilities,[3] i.e., whether the connection is more probable than not.

16. In these Reasons, the association for both the reasonable hypothesis test and the balance of probabilities test are respectively referred to as the ‘relevant association’.

17. The Council exercises its scientific judgement in weighing the evidence about the relevant association.

18. On 8 June 2026, the Council wrote to the Commissions advising its preliminary decision on the proposed scope of the review and inviting comment. On 23 June 2026, the Commissions responded in support of the proposed scope of the review. The Commissions noted that the scope will include consideration of blast induced mild traumatic brain injury

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2 See the full Federal Court decision in *Repatriation Commission v Bey* (1997) 79 FCR 364 which cited with approval these comments from Veterans’ Review Board in *Stacey* (unreported 26 June 1985), all of which were in turn cited with approval in the Moore J decision at [33].

3 Relevant service in balance of probabilities statements of principles refers to eligible war service (other than operational service), defence service (other than hazardous service and British nuclear test defence service) and peacetime service as those terms are defined in the *Military Rehabilitation and Compensation Act 2004*.

constituting a type of disease, injury or death, rather than being limited to the identification of potential causal factors.

19. Following receipt of the response from the Commissions, the Council confirmed the scope of the review was to consider whether there was sufficient sound medical-scientific evidence before the Repatriation Medical Authority on which to determine factors linking repetitive low-level blast overpressure with blast induced mild traumatic brain injury; and if so, to determine relevant Statement of Principles, possibly, but not necessarily, by reference to the Repatriation Medical Authority.

COUNCIL'S DECISIONS ON THE RELEVANT SOUND MEDICAL-SCIENTIFIC EVIDENCE

20. The Council considered that the relevant sound medical-scientific evidence should comprise information:

- that was available to the Repatriation Medical Authority at the relevant times;
- which was sent by the Repatriation Medical Authority to the Council under section 196K of the *Veterans' Entitlements Act 1986*;
- which was considered by the Council to be sound medical-scientific evidence as defined in section 370CA of the *Military Rehabilitation and Compensation Act 2004,* being information which:
    b. epidemiologists would consider appropriate to take into account; and
    c. in the Council's view 'touches on' (is relevant to) matters within the scope of review.

21. The Council's final decision on the relevant sound medical-scientific evidence was that it should comprise of information listed in **Appendix A, Table 1**.

22. The Council took into account all the submissions made to it, both written and oral, from the Commissions. In summary, the Commissions submitted:

a. Commissioned work by the University of New South Wales to undertake a Rapid Evidence Assessment of the current evidence regarding repetitive low-level blast exposure in humans for the Department of Veterans' Affairs:

    i. Heslop DJ, Fortington LV, Gardner AJ (2026). Neurocognitive Effects of Repetitive Low-Level Blast Overpressure Exposure in Humans: A Rapid Assessment of the Evidence. Department of Veterans' Affairs, Australian Government, Canberra.

    ii. Heslop DJ, Fortington LV, Gardner AJ (2026). Neurocognitive Effects of Repetitive Low-Level Blast Overpressure Exposure in Humans: Addendum 1. Department of Veterans' Affairs, Australian Government, Canberra.

b. Context to the application request and reiterated the importance of blast induced mild traumatic brain injury to the Veteran community.
c. Insights from the Veteran community.
d. Information about current international research and support programs for blast induced mild traumatic brain injury.

23. The Council noted the Applicant's references to and submissions concerning information which was not available to the Repatriation Medical Authority (**see Appendix A, Table 2**). The Council did not take into account information the Repatriation Medical Authority advised was not available at the relevant times, as it could only be considered as 'new information '.

THE COUNCIL'S EVALUATION OF THE RELEVANT SOUND MEDICAL-SCIENTIFIC EVIDENCE

24. When evaluating the relevant sound medical-scientific evidence, the Council focused on information relevant to the scope of the review and the list at Table 1 of Appendix A.

25. In forming its decisions on the sound medical-scientific evidence, the Council brings to bear its scientific expertise and judgement. The Bradford

Hill criteria and other tools or criteria appropriate to be taken into account by epidemiologists were applied to the articles as it considered appropriate.

26. The Council also considered any methodological limitations or flaws (including such things as statistical power, control of confounders, bias, exposure assessment methods etc.) in the various articles.

27. For ease of reference, the Bradford Hill criteria (noting that these are not exhaustive) are:

- strength of association
- consistency across investigation
- specificity of the association
- temporal relationship of the association
- biological gradient
- biological plausibility
- coherence
- experiment
- analogy

28. The Council notes that these criteria are not necessary conditions of a cause and effect relationship. They act to provide some circumstantial evidence of such a relationship.

DEFINITIONS

29. Section 5(1) of the *Military Rehabilitation and Compensation Act 2004* defines disease and injury relevantly as follows:

Disease means:

- *any physical or mental ailment, disorder, defect or morbid condition (whether of sudden onset or gradual development); or*
- *the recurrence of such an ailment, disorder, defect or morbid condition;*

but does not include:

- *the aggravation of such an ailment, disorder, defect or morbid condition; or*
- *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, alcohol on blood cholesterol levels);

[and]

- *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.

30. The question of what constitutes a disease or injury for the purposes of determining Statements of Principles under the *Military Rehabilitation and Compensation Act 2004* is to be determined by the ordinary meaning of those words. While reference and regard may be had to ordinary dictionary definitions, medical dictionaries, and expert knowledge, ultimately, in determining whether a condition is a disease as defined, the Council must conclude on the balance of probabilities whether or not the claimed condition is a ‘disease’ or ‘injury’ as used and understood in its ordinary meaning.

31. A disease is a disorder (a disturbance or departure, e.g., of an organ or body system, from normal balance or healthy function).

32. An injury is generally identified where an individual has suffered something that can be described as a sudden and ascertainable or dramatic physiological change or disturbance of the normal physiological state. The suddenness of the change can help distinguish a physiological change from the progression of an underlying disease.

33. In epidemiology, accurate diagnosis of a disease requires a case definition. A case definition is a set of criteria that must be fulfilled in order to identify a person as representing a case of a particular disease.

34. A case definition may be based on geographic, clinical, laboratory, or combined criteria or on a scoring system with points for each criterion that matches the features of the disease. In deciding whether to include or exclude cases in an epidemiological study, a case definition must be highly reliable.

35. The Council noted that no validated exposure thresholds or diagnostic criteria currently exist for repetitive low-level blast overpressure exposure and mild traumatic brain injury.

36. A diagnosis of mild traumatic brain injury follows an injury event associated with immediate onset or worsening of clinical signs such as loss or reduction of consciousness, post-traumatic amnesia, or alteration in mental state. Loss of consciousness, if present, lasts no more than 30 minutes; post-traumatic amnesia and alteration of consciousness or mental state, if present, last up to 24 hours. Structural neuroimaging, if performed, shows no clinically relevant findings (Department of Veterans' Affairs & Department of Defense, 2021).

37. Repetitive low-level blast overpressure exposure refers to repeated occupational exposure to blast pressure waves above normal atmospheric pressure generated by military weapons firing or explosives, including breaching charges, indirect-fire weapons and heavy firearms, during training or operations. Exposure involves multiple blast events within a single training session or over a period of time. Individual low-level blast exposures do not typically result in a clinically diagnosable concussion or mild traumatic brain injury (Traumatic Brain Injury Center of Excellence, 2023).

38. Critically, direct measurement of mild traumatic brain injury criteria at the time of cumulative blast exposure is absent from the literature.

COUNCIL'S CONCLUSIONS ON THE RELEVANT SOUND MEDICAL-SCIENTIFIC EVIDENCE

39. This section of the Reasons outlines the Council's conclusions on the relevant sound medical-scientific evidence that it considered to be within the scope of its review.

40. In reaching a decision about the existence or otherwise of a reasonable hypothesis, the Council must consider and evaluate all of the relevant sound medical-scientific evidence, in the situation where there is a single piece of evidence in support of a reasonable hypothesis, on its own that may appear to be enough to support such a hypothesis. However, when placed in context with other relevant sound medical-scientific evidence, it may not be enough to support such a relation. It is therefore important that the Council considers all relevant information in context.

41. Some emerging evidence demonstrates that repetitive low-level blast overpressure may be associated with a persistent neurobiological and symptomatic profile that is collectively consistent with, and in many respects clinically indistinguishable from, the sequelae of mild traumatic brain injury, including: neuroimaging abnormalities (Gilmore et al., 2024; Stone et al., 2020; Glikstein et al., 2025; Solar et al., 2024; Carr et al., 2016; Champagne et al., 2021; Leiva-Salinas et al., 2023), oculomotor dysfunction (Hunfalvay et al., 2022), neurochemical markers of axonal injury and neuroinflammation (Boutté et al., 2021; Boutté et al., 2019; Wang et al., 2020; Stone et al., 2020; Vorn et al., 2022; Agoston et al., 2022), neuropathological evidence of blast-specific astroglial scarring (Shively et al., 2016), and a chronic post-concussive symptom burden that is dose-dependent and occupationally patterned (Carr et al., 2015; Vartanian et al., 2020; Belding et al., 2021; LaValle et al., 2019; Woodall et al., 2023).

42. However, inadequate confounder exclusion (Belding et al., 2023; Thiel et al., 2015; Vartanian et al., 2020), the absence of prospective neurobiological longitudinal data (Kamimori et al., 2018; Glikstein et al., 2025; Thiel et al., 2015), null results from some studies (Lippa et al., 2023;

Kamimori et al., 2018; Thiel et al., 2015; Priemer et al., 2022), and the inability to exclude selection effects in symptomatic cohorts exist (Gilmore et al., 2024; Stone et al., 2020), making it difficult to establish a causal relationship between repetitive low-level blast exposure and traumatic brain injury to the requisite degree.

43. The Council considered that the information available to the Repatriation Medical Authority at the relevant times touching on the Commissions contentions was insufficient evidence to establish Statements of Principles for Blast Induced Mild Traumatic Brain Injury.

44. The Council notes that the clinical presentation proposed for cumulative low-level blast overpressure brain injury differs from the usual presentation of a conventional mild traumatic brain injury or concussion or chronic traumatic encephalopathy. Repeated low-level blast overpressure associated injury may arise from repeated overpressure exposures that do not produce a recognised concussion at the time. The clinical signal is therefore more likely to be cumulative, subtle, and occupationally patterned: slowed processing, impaired procedural reaction time, cognitive inefficiency under load, headache or head pressure after exposure days, tinnitus, hearing difficulty, sound sensitivity, dizziness, visual strain, sleep disruption, fatigue, irritability, and reduced tolerance for training demands.

45. Framing the outcome as a traumatic brain injury requires demonstrating a discrete pathological event caused by a specific exposure, and the available evidence for repetitive low-level blast overpressure does not fit that model because each exposure is subclinical, acute biomarker studies are largely null, and symptoms accumulate gradually over years of occupational exposure.

46. The Council therefore recommends that the Repatriation Medical Authority investigate determining Statements of Principles concerning repeated low-level blast overpressure and a chronic brain health condition.

47. The factor could be framed as cumulative occupational exposure to low-level blast overpressure before the clinical onset or worsening of a defined chronic brain health condition, but in the absence of other conditions (i.e., post-traumatic stress disorder, depression, sleep disturbance, chronic pain, or concussion).

48. The exposure should include training or operational activities involving repeated overpressure from breaching, artillery, mortars, shoulder-fired weapons, heavy weapons, or comparable blast-generating activities.

COUNCIL'S VIEW ON THE NEW INFORMATION SUBMITTED BY THE APPLICANT

49. As mentioned previously, in conducting a review, the Council is unable to (and so did not) consider information which was not available to (not before) the Repatriation Medical Authority at the relevant times. However, having formed the view that there was nothing in the pool of information which pointed to the relevant association, and being mindful of the Applicant's (The Commissions) comments, the Council considered whether in its view there was a basis for recommending to the Repatriation Medical Authority that it (the Repatriation Medical Authority) undertake a new investigation.

50. The Council has neither the capacity nor the jurisdiction to perform an investigative function, including undertaking a comprehensive literature search. The Council considered the new information to determine whether, in the Council's view, it warranted the Council making any directions or recommendations to the Repatriation Medical Authority.

51. In the Council's view, any such direction or recommendation should only be made by the Council if it formed the view that the new information comprised sound medical-scientific evidence as defined in section 370CA of the *Military Rehabilitation and Compensation Act 2004* being information which:

- was information epidemiologists would consider appropriate to take into account;

- and in the Council's view, 'touched on' (was relevant to) the contended factor; and could potentially satisfy the reasonable hypothesis and/or balance of probabilities tests.

52. The Commissions submitted that the Department of Veterans' Affairs commissioned work by the University of New South Wales to undertake a Rapid Evidence Assessment of the current evidence regarding repetitive low-level blast exposure in humans:

- Heslop DJ, Fortington LV, Gardner AJ (2026) *Neurocognitive Effects of Repetitive Low-Level Blast Overpressure Exposure in Humans: A Rapid Assessment of the Evidence*, Department of Veterans' Affairs, Australian Government, Canberra.
- Heslop DJ, Fortington LV, Gardner AJ (2026) *Neurocognitive Effects of Repetitive Low-Level Blast Overpressure Exposure in Humans: Addendum 1*, Department of Veterans' Affairs, Australian Government, Canberra.

53. The Department of Veterans' Affairs-commissioned report synthesises 149 peer-reviewed publications and 16 additional newly published studies (the Addendum), supplemented by grey literature. The original report examined the evidence published in the five years preceding September 2025 on repetitive low-level blast exposure and its potential physiological, neurological, cognitive, and behavioural effects in humans. The Addendum specifically asked whether literature published between January 2025 and April 2026 materially strengthened, weakened, or otherwise modified the initial report's conclusions.

54. Both were structured around a set of pre-specified research questions such as how repetitive low-level blast overpressure exposure is defined, which military occupational roles carry the highest risk, what mechanisms of neurological and cognitive harm are proposed, how symptoms can be distinguished from other psychiatric and neurological conditions, and what evidence is there of an association with mild traumatic brain injury.

55. Both reports arrived at the same central conclusion: the available evidence

supports biological plausibility and association between repetitive low-level blast overpressure and a range of physiological, neurological, cognitive, behavioural, sensory, and neuropsychiatric outcomes, but it does not establish that repetitive low-level blast exposure alone causes a distinct clinical syndrome. The grading assessments of the literature assigned very low certainty to all included studies, reflecting observational designs, reliance on occupational role or self-report as a proxy for exposure, small or selected samples, and a failure to replicate findings across independent cohorts. Confounding factors including post-traumatic stress disorder, depression, sleep disturbance, chronic pain, hearing loss, and prior concussion were found to frequently exert influence on outcomes, making it challenging to understand the blast-specific contribution. The Addendum confirmed that 16 new peer-reviewed publications provided incremental reinforcement of biological plausibility and identified associations but did not shift the causal interpretation.

56. The Council considers the new information to be consistent with its decision that there is insufficient evidence to establish Statements of Principles for Blast Induced Mild Traumatic Brain Injury and its recommendation that the Repatriation Medical Authority investigates making Statements of Principles concerning repeated low-level blast overpressure and a chronic brain health condition.

DECISION

57. The Council made the declarations on the front page of this decision.

REFERENCES

Agoston DV, McCullough J, Aniceto R, et al (2022) ‘Blood-based biomarkers of repetitive, subconcussive blast overpressure exposure in the training environment: A pilot study’, *Neurotrauma Rep*, 3(1): 479-90.

Belding JN, Kolaja CA, Rull RP, et al (2023) ‘Single and repeated high-level blast, low-level blast, and new-onset self-reported health conditions in the U.S. Millennium Cohort Study: An exploratory investigation’, *Front Neurol*, 14: 1110717.

Boutte AM, Thangavelu B, LaValle CR, et al (2019) ‘Brain-related proteins as serum biomarkers of acute, subconcussive blast overpressure exposure: A cohort study of military personnel’, *PLoS One*, 14(8): e0221036.

Boutte AM, Thangavelu B, Nemes J, et al (2021) ‘Neurotrauma biomarker levels and adverse symptoms among military and law enforcement personnel exposed to occupational overpressure without diagnosed traumatic brain injury’, JAMA Netw Open, 4(4): e216445.

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Champagne AA, Coverdale NS, Ross A, et al (2021) ‘Characterizing changes in network connectivity following chronic head trauma in special forces military personnel: a combined resting-fMRI and DTI study’, *Brain Inj*, 35(7): 760-8.

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Stone JR, Avants BB, Tustison NJ, et al (2020) ‘Functional and structural neuroimaging correlates of repetitive low-level blast exposure in career breachers’, *J Neurotrauma*, 37(23): 2468-81.

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Wang Z, Wilson CM, Mendelev N, et al (2020) ‘Acute and chronic molecular signatures and associated symptoms of blast exposure in military breachers’, *J Neurotrauma*, 37(10): 1221-32.

Woodall JL, Sak JA, Cowdrick KR, et al (2023) ‘Repetitive low-level blast exposure and neurocognitive effects in army ranger mortarmen’, *Mil Med*, 188(3-4): e771-9.

APPENDICES

APPENDIX A:

TABLE 1 MATERIAL BEFORE THE REPATRIATION MEDICAL AUTHORITY

Repatriation Medical Authority Identification Number	**Reference List for Repatriation Medical Authority 493-1 as at August 2025**
121060	Agoston DV, McCullough J, Aniceto R, et al (2022). Blood-based biomarkers of repetitive, subconcussive blast overpressure exposure in the training environment: A pilot study. Neurotrauma Rep, 3(1): 479-90.
116391	Akin FW, Murnane OD, Hall CD, et al (2022). Vestibular and balance function in veterans with chronic dizziness associated with mild traumatic brain injury and blast exposure. Front Neurol, 13: 930389.
129169	Australian Department of Defence (2025). Chapter 22 - Blast overpressure - repeated low-level exposure. Defence. Retrieved 11 February 2025, from https://www.defence.gov.au/sites/default/files/2025-02/Defence_FOI_066-24-25-Document.pdf
128751	Baker AJ, Topolovec-Vranic J, Michalak A, et al (2011). Controlled blast exposure during forced explosive entry training and mild traumatic brain injury. J Trauma, 71(5 Suppl 1): S472-7.
128697	Barnes DE, Byers AL, Gardner RC, et al (2018). Association of mild traumatic brain injury with and without loss of consciousness with dementia in US military veterans. JAMA Neurol, 75(9): 1055-61.
109133	Barnes DE, Kaup A, Kirby KA, et al (2014). Traumatic brain injury and risk of dementia in older veterans. Neurology, 83(4): 312-9.
71084	Bazarian JJ, Donnelly K, Peterson DR, et al (2013). The relation between posttraumatic stress disorder and mild traumatic brain injury acquired during Operations Enduring Freedom and Iraqi Freedom. J Head Trauma Rehabil, 28(1): 1-12.
129106	Belanger HG, Bowling F, Yao EF (2020). Low-level blast exposure in humans: A systematic review of acute and chronic effects. J Spec Oper Med, 20(1): 87-93.

126751	Belanger HG, Proctor-Weber Z, Kretzmer T, et al (2011). Symptom complaints following reports of blast versus non-blast mild TBI: does mechanism of injury matter? Clin Neuropsychol, 25(5): 702-15.
128331	Belding JN, Englert RM, Fitzmaurice S, et al (2021). Potential health and performance effects of high-level and low-level blast: A scoping review of two decades of research. Front Neurol, 12: 628782.
128332	Belding JN, Kolaja CA, Rull RP, et al (2023). Single and repeated high-level blast, low-level blast, and new-onset self-reported health conditions in the U.S. Millennium Cohort Study: An exploratory investigation. Front Neurol, 14: 1110717.
128698	Blennow K, Jonsson M, Andreasen N, et al (2011). No neurochemical evidence of brain injury after blast overpressure by repeated explosions or firing heavy weapons. Acta Neurol Scand, 123(4): 245-51.
126717	Bolzenius JD, Roskos PT, Salminen LE, et al (2015). Cognitive and self-reported psychological outcomes of blast-induced mild traumatic brain injury in veterans: a preliminary study. Appl Neuropsychol Adult, 22(2): 79-87.
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TABLE 2

NEW MATERIAL WHICH WAS NOT BEFORE THE REPATRIATION MEDICAL AUTHORITY

Title
Heslop DJ, Fortington LV, Gardner AJ (2026). Neurocognitive Effects of Repetitive Low-Level Blast Overpressure Exposure in Humans: A Rapid Assessment of the Evidence. Department of Veterans' Affairs, Australian Government, Canberra.
Heslop DJ, Fortington LV, Gardner AJ (2026). Neurocognitive Effects of Repetitive Low-Level Blast Overpressure Exposure in Humans: Addendum 1. Department of Veterans' Affairs, Australian Government, Canberra.

APPENDIX B:

THE CONSTITUTED COUNCIL AND LEGISLATIVE FRAMEWORK OF THE REVIEW

The Specialist Medical Review Council

58. The composition of each Review Council changes from review to review depending on the issues relevant to the particular Statement/s of Principles under review. When a review is undertaken, three to five Councillors selected by the Convener constitute the Council.

59. The Minister must appoint one of the Councillors to be the Convener. If the Council does not include the Convener, the Convener must appoint one of the Councillors selected for the review to preside at all meetings as Presiding Councillor.

60. Professor Christian Gericke was the Presiding Councillor for this review. Expertise: Neurology and Epidemiology

61. The other members of the Council were: Professor Jeffrey Rosenfeld, AC OBE KStJ (Expertise: Neurosurgery); Professor Alexander McFarlane, AO (Expertise: Psychiatry); Professor Kimberly Alexander (Expertise: Epidemiology); Assistant Professor Isabelle Bauer (Expertise: Clinical Neuropsychology)

The Legislation

62. The legislative scheme for the making of Statements of Principles is set out in Chapters 9A and 9B of the *Military Rehabilitation and Compensation Act 2004*. Statements of Principles operate as templates. They are determined by the Repatriation Medical Authority and set out those criteria (conditions or exposures), known as factors, that must, at a minimum, exist before it can be said that an injury, disease or death can be connected with service, on either or both of the two statutory tests, the reasonable hypothesis test[4]

[4] The reasonable hypothesis test is set out in section 370CB of the *Military Rehabilitation and Compensation Act 2004* which provides;

If the Authority is of the view that there is sound medical-scientific evidence that indicates that a particular kind of injury, disease or death can be related to:

and the balance of probabilities test. [5] Statements of Principles are ultimately applied by decision-makers in determining individual claims for benefits under the *Military Rehabilitation and Compensation Act 2004*. [6]

(a) operational service rendered by veterans; or

(b) peacekeeping service rendered by members of Peacekeeping Forces; or

(c) hazardous service rendered by members of the Forces; or

(caa) British nuclear test defence service rendered by members of the Forces; or

(ca) warlike or non-warlike service rendered by members;

the Authority must determine a Statement of Principles in respect of that kind of injury, disease or death setting out:

(d) the factors that must as a minimum exist; and

(e) which of those factors must be related to service rendered by a person;

before it can be said that a reasonable hypothesis has been raised connecting an injury, disease or death of that kind with the circumstances of that service.

5 The balance of probabilities test is set out in section 370CC of the *Military Rehabilitation and Compensation Act 2004* which provides:

If the Authority is of the view that on the sound medical-scientific evidence available it is more probable than not that a particular kind of injury, disease or death can be related to:

(a) peacetime service;

(b) service to which a claim mentioned in subsection 120B(1) of the VEA relates;

the Authority must, by legislative instrument, determine a Statement of Principles in respect of that kind of injury, disease or death setting out:

(c) the factors that must exist; and

(d) which of those factors must be related to service rendered by a person;

before it can be said that, on the balance of probabilities, an injury, disease or death of that kind is connected with the circumstances of that service.

6 See sections 335, 338 and 339 of the *Military Rehabilitation and Compensation Act 2004*.