VCHA Veterans Rehabilitation Network

Clinical Update | Accelerated biological aging in veterans | April 2026

Welcome to the VCHA Veterans Rehabilitation Newsletter, dedicated to the health and healthcare experiences of military veterans.

This edition focuses specifically on **accelerated biological aging**. Emerging research suggests that physical blast trauma and psychological stress can alter the biological aging process in veterans. This can lead to **early onset frailty**, complex MSK presentations and vulnerabilities masked by a lower chronological age. Continued on page 2 (Evidence review).

Information on the recent report from the **Ministry of Defence on Suicides in the UK**, and information on the **Veterans' Mobility Fund** are also included.

Veterans' Mobility Fund

The Veterans' Mobility Fund (VMF) is administered by Help for Heroes with the support and partnership of Blesma and is funded by the government through the Armed Forces Covenant Fund Trust (AFCFT).

The fund is designed to support veterans with physical disabilities resulting from illness or injury sustained during service. It does this by providing life-changing grants or equipment not usually available on the NHS.
More information can be found by clikcing the link to the right

National Statistics Update

As Allied Health Professionals, we often support service personnel through complex physical and psychological rehabiitation journeys. Staying informed on the mental health landscape of the UK Armed Forces is important for providing comprehensive holistic care. The latest National Statistics report highlights several key trends that may impact your clinical practice.

Suicides in the UK regular Armed Forces: Annual summary and trends over time

2025 Key points and trends

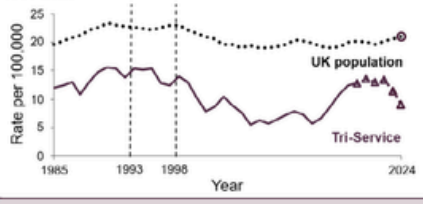
For the 20-year period 2006 – 2025, 277 suicides occurred among UK regular Armed Forces personnel, 255 among males and 22 among females.

In 2025, there were **five coroner confirmed suicides.** There were an additional **11** deaths which may result in a suicide verdict once Coroner Inquests are held.

Suicide is a **rare event** in the UK Armed Forces. The rate for the latest 20-year period was **8 per 100,000** personnel.

Suicide rates were highest among **Army males aged 24 and under** and **Royal Navy and RAF males aged 40-44**. In the UK general population, males aged 50 to 54 years were most at risk of suicide.

UK regular Armed Forces and UK general population male suicide,three-year moving average, age standardised rate per 100,000
1984-2025



UK regular Armed Forces saw a declining trend in male suicide rates from the 1990s and were **consistently lower than the UK general population**.

Since 2017 the number of male suicides has increased, however the risk of suicide in UK Armed Forces males **remains lower** than males in the UK general population.

[The full report can be found here]

Tool Box & Resources

OpCOURAGE
Mental Health Support

Help for Heros
Veterans' Mobility Fund

Blesma
Veterans' Mobility Fund

VCHA Rehab
Resource pack for clinicians and veterans

OpRestore
The Veterans Physical Health and Wellbeing Service

Key Fact

Stress, PTSD, trauma and blast exposure can accelerate biological aging.
Identifying these risk factors can help therapists tailor their care.

Consider asking:
"Have you, or an immediate family member, ever served in the UK Armed Forces?" (Instead of "Are you a veteran?")

Evidence Review

Posttraumatic stress disorder, trauma, and accelerated biological aging among post-9/11 veterans
2024

This Quantatative study used a epigenetic biomarker (DunedinPACE) to analyse data from 2,309 post 9/11 US military veterans to try and determin if post traumatic stress disorder (PTSD) or trauma accelerated biological aging. It found that veterans with with high trauma exposure of current PTSD aged faster than those without, by an additional 0.4 months of biological aging per calande year. Interestingly, those with treated or past PTSD aged at a slower rate, comparable to those who had never had PTSD.

- Strengths: Highly validated biomarker to measure 'speed' of aging. Large sample size used. Explores potential reversibility of accelerated aging.
- Weaknesses: Cross sectional study therefore limited in establishing definitive causality. Data based on US veterans, may not be a comparable representation of UK populations.

Conclusion:

PTSD and trauma can accelerate biological aging but this may be reversible with effective management. **Clinical Tip**: Treat the whole patient. Consider that veterans presenting with MSK issues and PTSD may have impaired cellular healing or accelerated physiological aging

Accelerated epigenetic aging in veterans exposed to blast
2026

This cross sectional study examined 114 post 9/11 veterans to determine if exposure to blast trauma accelerated biological aging. The DunedinPACE biomarker was used to analyse the data and they found that lifetime blast exposure severity and history of mild traumatic brain injury (TBI) were independently associated with faster biological aging, even when controlling for PTSD.

- Strengths: Isolated effect of blast trauma from psychological trauma. provides objective evidence linking the physical impact from blast waves to cellular decline.
- Weaknesses: Fairly small sample size, 88.6% male. Another cross sectional study so cannot definitively confirm causality.

Conclusion:

It's likely that the physical forces of blast exposure can cause lasting cellular damage that accelerates the aging process, independently of mental health status. **Clinical tip:** Ask veterans about blast exposure and mild TBIs to assess for potential delayed tissue healing.

Accelerated biological aging and midlife frailty among U.S. military veterans
2025

This longitudinal study tracked 1,654 post-9/11 US veterans over an average of 12.6 years to examine the relationship between biological aging and frailty. It screened electronic health records to assess frailty and used the DunedinPACE assess aging. The found 25.5% frailty prevelance in this midlife cohort (average age 50.2), considerably higher than is seen in community dwelling older adults. Faster biological aging was associated with a 62% larger rate of being diagnosed with frailty.

- Strengths: Longitudinal design provides more robust evidence. Utilises EHR's rather than relying on patient reported data.
- Weaknesses: Data based on US veterans. As frailty based solely on electronic health records it may miss subtle declines not formally coded by treating doctor.

Conclusion:

Veterans can be higher risk of early onset frailty due to accelerated biological again. **Clinical Tip:** Shift your baseline. Consider objective frailty screening (e.g., grip strength, sit-to-stand, gait speed) earlier for veteran patients that present with the associated risk factors —targeting those in their 40s and 50s rather than waiting until they reach 65.

The role of health behaviours in links between stress and epigenetic aging
2026

This study analysed 1,308 adults to better understand how stressful life events and perceived stress affected biological age. Researchers found that stress did predict accelerated aging. However, indirectly, through increase in unhealthy behaviours. Specifically poor sleep, diet exercise and substance abuse.

- Strengths: Directly investigates links between lifestyle factors and stress / accelerated aging.
- Weaknesses: The sample is based on a civilian cohort rather than a military-specific one, therefore extreme occupational stressors (like combat or blast exposure) are not specifically isolated.

Conclusions:

Accelerated aging from stress is not purely a fixed biological outcome but rather driven by modifiable health behaviours. **Clinical Tip:** Emphasise to veteran patients that improving their physical activity and sleep can directly combat the biological wear-and-tear of their trauma.

Join the Conversation: Upcoming Virtual Therapy Forum

Register for our upcoming Therapy Forum

Veterans Covenant Healthcare Alliance

Therapy Forum

Wednesday 29th April 10:00AM

Agenda

Time	Title	Speaker
10:00 - 10:05	Opening address: The National Vision	Prof Tim Briggs CBE
10:05 - 10:15	Update on our new training modules	Sarah Kirkby
10:15 - 10:25	Future forums and expanding the Champion role	Linus Cosgrove
10:25 - 10:40	Peer to peer discussion & networking in breakout rooms	All
10:40 - 10:45	Feedback and closing remarks	Linus Cosgrove