

Operational Stressors on Physical Performance in Special Operators and Countermeasures to Improve Performance: A Review of the Literature

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In the article “Operational Stressors on Physical Performance in Special Operators and Countermeasures to Improve Performance: A Review of the Literature,” O’Hara and colleagues* performed a literature search for “specific countermeasures to reduce or prevent significant decrements in physical performance and reduce musculoskeletal injuries” with the conclusion that “specific countermeasures for these known decrements are lacking in the scientific literature.” This deduction, however, proves inaccurate as evidence within the military community does exist and, unfortunately, has been undervalued. Provided here are only a few examples of present Special Operations Force (SOF)-relevant supplement research.

O’Hara et al. appropriately and thoroughly emphasized the multiple physical health risks associated with the high training and operational tempo of the SOF community. One military study performed by Flakoll et al. showed that postexertional protein supplementation decreases these risks. Their study evaluated Marine recruits who were randomly assigned to three treatment arms: (1) placebo, (2) control, or (3) protein supplementation. After 54 days, the protein-supplemented group had an average of 33% fewer total medical visits, 28% fewer visits due to bacterial/viral infections, 37% fewer visits due to muscle/joint problems, and 83% fewer visits due to heat exhaustion compared with the placebo and control groups. Furthermore, the study found muscle soreness immediately postexercise was reduced by protein supplementation versus the placebo and control groups.¹

O’Hara et al. also discussed other common musculoskeletal and joint pains, one of which is chronic knee pain. A 16-week randomized, double-blind, placebo-controlled crossover trial conducted by the Medical Department of Naval Special Warfare Command evaluated 34 men from the U.S. Navy SOF community with chronic lumbar or knee pain who carried the diagnosis of degenerative joint disease (DJD). Half the men took a

combination of glucosamine HCl (1500mg/day), chondroitin sulfate (1,200mg/day), and manganese ascorbate (228mg/day) and the other half received placebo. Although there was no significant back pain improvement, the researchers found this combination to be effective for treating DJD of the knee pain.²

Last, perpetual operational and training noise exposures cause decreased operator effectiveness secondary to permanent hearing impairment. Evidence exists showing the effectiveness of oral magnesium supplementation. Among the multiple available articles on this subject, Attias et al. specifically identifies the military relevance in their placebo-controlled, double-blind study of 300 healthy, normal-hearing recruits undergoing 2 months of repeated high-level impulse noise exposure (gunfire, explosives, etc.). The subjects received either 167mg magnesium aspartate or placebo daily, with results showing permanent hearing damage was significantly reduced in the magnesium group compared with their placebo counterparts.³

This is just a small sampling of the plethora of data for various inexpensive and safe supplements with SOF relevance. Numerous other studies exist that may further benefit the Special Operations community through reduced training dropout rates, increased operator longevity, and decreased medical expenditures. In the near future, additional research may even be able to identify cost-effective supplement combinations targeted for specific SOF units, branches, or mission requirements.

Disclosure

The authors have nothing to disclose.

References

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Note

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