



New Clinical Study Uncovers Potential K2VITAL™ Post-Exercise Neuromuscular Signaling in Older Adults

Montvale, New Jersey (March 26, 2026) – Findings from a new clinical study published in the peer-reviewed journal [Medicine & Science in Sports & Exercise](#) suggest that vitamin K2 MK-7 may support neuromuscular signaling in older adults.¹ The trial was designed to examine the effects of supplementation with K2 MK-7, using Balchem’s K2VITAL™ ingredient, on post-exercise muscle recovery in both healthy young and older adults. Subgroup analysis of the older participants (65+ years) revealed age-specific effects that call for further research in the context of supportive strategies for healthy aging.

Muscular Effects of Vitamin K2 MK-7 in Older Adults

The double-blind, randomized controlled trial included 71 healthy participants, 35 younger adults (18–40 years) and 36 older adults (65+ years). Participants received either 240 µg/day vitamin K2 MK-7 (K2VITAL™) or placebo for 12 weeks. Before and after supplementation, participants took part in a resistance exercise protocol, followed by assessments of muscle strength, soreness and function, as well as blood tests for biomarkers of muscle damage and inflammation.

Examination of the full participant group did not find any significant effects, however subgroup analysis of the older adults suggested some age-specific responses. Participants aged 65+ receiving vitamin K2 MK-7 showed improved neuromuscular signaling, which supports nerve–muscle communication that helps maintain muscle control. These effects were not observed in the placebo group. The findings of the study suggest that Balchem's K2VITAL can help support both neuromuscular activation and signaling in older adults after exercise.

“We’re proud to have supported this investigation by providing our patented, typically 99.7% all-trans K2 MK-7 ingredient, K2VITAL™, for the study,” comments **Dominik Mattern, VP Science, Business Development and Marketing, Balchem Human Nutrition and Health.** *“Vitamin K2 is already well recognized for its established benefits in cardiovascular and bone health, making it a strong foundational nutrient for healthy aging formulations. These findings open the door to further exploration that may expand scientific understanding of how vitamin K2 contributes to healthy aging across multiple areas.”*

For more information about Balchem and its brand K2VITAL™, visit:

<https://balchem.com/hnh/mn/k2vital/>

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¹ Lithgow, H., *et al.* (2026). The Effects of Vitamin K₂ on Recovery from Muscle-Damaging Resistance Exercise in Young and Older Adults: The TAKEOVER Randomized Controlled Trial. *Medicine & Science in Sports & Exercise*, 58(4):p 683-694, April 2026. DOI: 10.1249/MSS.0000000000003901

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Notes to Editors:

About Balchem Corporation

Balchem Corporation develops, manufactures, and markets specialty ingredients that improve and enhance the health and well-being of life on the planet, providing state-of-the-art solutions and the finest quality products for a range of industries worldwide. The company reports three business segments: Human Nutrition & Health; Animal Nutrition & Health; and Specialty Products. The Human Nutrition & Health segment delivers customized food and beverage ingredient systems, as well as key nutrients into a variety of applications across the food, supplement and pharmaceutical industries. The Animal Nutrition & Health segment manufactures and supplies products to numerous animal health markets. Through Specialty Products, Balchem provides specialty-packaged chemicals for use in healthcare and other industries, and also provides chelated minerals to the micronutrient agricultural market.

About K2VITAL™

K2VITAL™ is patented, typically 99.7% all-trans K2 MK-7, identical to the K2 molecule found in nature and fully bioactive. Vitamin K2 all-trans MK-7 is the biologically active form of vitamin K2, a fat-soluble vital vitamin that supports bone and heart health. K2VITAL™ offers uncompromising quality and stability, providing the maximum benefits of vitamin K2.



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