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## News Release

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## Daily Consumption of Grapes Improves Muscle Strength Markers in Postmenopausal Women

Fresno, CA – A new study<sup>1</sup> from the University of California, Davis, published in the peerreviewed journal *Food & Function*, provides the first clinical evidence showing that regular consumption of grapes – just 1 ½ cups per day – can improve muscle strength and boost irisin levels in postmenopausal women. The results suggest a promising strategy against age-related muscle decline, also known as sarcopenia.

Sarcopenia is the loss of muscle mass and strength. These losses can start as early as age 40 and with progression over time, sarcopenia adversely affects quality of life including degree of mobility, loss of independence, and higher healthcare costs.

In this study, led by Gerardo Mackenzie, Ph.D., one group of subjects consumed whole grape powder (equivalent to 1 ½ cups fresh grapes per day), while the other group consumed a placebo powder that had none of the beneficial phytonutrients found in grapes. The women consuming grape powder significantly improved their performance on the tests of muscle strength: hand grip and gait speed. Irisin, a hormone that is beneficial for muscle and bone growth, was also measured pre-and post-study interventions. Those consuming grapes had a 14.4% increase in plasma irisin levels, while the placebo group saw a 7.8% decrease in irisin levels, although the changes did not reach statistical significance. However, the research team observed a positive and significant association between changes in grip strength and changes in irisin levels from baseline to the end of the study.

"These findings indicate that regularly consuming a modest amount of grapes – just 1 ½ cups per day – can help improve muscle strength in postmenopausal women who are at risk for muscle loss as part of aging," said Mackenzie. "Incorporating grapes into the diet may offer an easy and promising nutritional approach to help mitigate sarcopenia, a condition for which there are no effective treatment options."

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<sup>&</sup>lt;sup>1</sup> Mendez, J.L., Lanzi, C.R., Quan, Z., Chen, S., Krga, I., and Mackenzie, G.G. (2025). Daily consumption of polyphenol-rich grape powder improves muscle strength markers in postmenopausal women. Food Funct. 16(12):4719-4730. <u>https://doi.org/10.1039/D5F001523E</u>