

# Vitamin D, a key milk nutrient, linked to better muscle power

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Young female athletes could have yet another reason to grab a glass of vitamin D-rich milk. Not only does vitamin D work with calcium to keep bones strong, researchers found that teenage girls with higher vitamin D levels may be able to jump higher and faster than their peers with lower levels, suggests a new study published in the *Journal of Clinical Endocrinology and Metabolism*.

UK researchers collected vitamin D levels for 99 girls, ages 12 to 14. To test the girls' muscle function, the girls were instructed to jump as high as possible while researchers used a device designed to measure power and performance called jumping mechanography. After controlling for differences in the girls' body weight, the girls with the highest vitamin D levels had the highest jump speeds, jump height, power and force.

This potential muscle advantage adds to the growing list of evidence positioning vitamin D as a super nutrient. Well known for its role in keeping bones strong, vitamin D is now being hailed for so much more. Emerging science suggests vitamin D may also help protect against diabetes, hypertension, heart disease and certain cancers. It may also support a healthy immune system to ward off infections, and some preliminary evidence suggests it may affect longevity.

Yet despite a potential upside of boosting vitamin D levels, Americans of all ages still fall short of their vitamin D needs. Even in this study with demonstrated muscle benefits, overall, the girls' vitamin D levels were far less than ideal - a finding consistent with numerous studies indicating

a resurgence in vitamin D deficiencies in adolescence. In fact, current deficiency levels prompted the American Academy of Pediatrics to double the vitamin D recommendations for children and teens to 400 IU daily. The Academy estimates that up to half of adolescents have low vitamin D levels.

The recommended three glasses of lowfat or fat free milk a day delivers 75 percent of the vitamin D that's needed each day. Milk remains the leading source of vitamin D in the American diet - it's one of the few food sources of the super nutrient. Plus, along with vitamin D, milk is a good source of calcium and high-quality protein - two nutrients vital to help teens maintain bone density and lean muscle.

#### References:

Ward KA, Das G, Berry JL, Roberts SA, Rawer R, Adams JE, Mughal Z. Vitamin D status and muscle function in post-menarchal adolescent girls. *Journal of Clinical Endocrinology and Metabolism*. 2008 Nov 25. [Epub ahead of print]

Wagner CL, Greer FR; American Academy of Pediatrics Section on Breastfeeding; American Academy of Pediatrics Committee on Nutrition. Prevention of rickets and vitamin D deficiency in infants, children, and adolescents. *Pediatrics*. 2008;122:1142-1152.

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