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*Vitamin D deficiency can weaken the muscular and skeletal systems. New research has shown that higher vitamin D levels are positively related to strength and power in adolescent girls.*

# INSUFFICIENT VITAMIN D LEVELS NEGATIVELY AFFECT STRENGTH IN GIRLS

A paper published in the February 2009 edition of the Journal of Clinical Endocrinology and Metabolism reported a link between higher levels of vitamin D and greater strength in adolescent girls.

The participants were 99 girls between the ages of 12 and 14. None of the girls had symptoms of vitamin D deficiency, yet 70% had low blood levels of vitamin D (defined as less than 37.5 nmol/L).

Muscle power and force were analyzed through the use of jumping mechanography, which measures performance in a series of jumping activities. The girls who were low in vitamin D performed worse on the jumping tests compared with girls with higher vitamin D levels. Vitamin D levels were also positively correlated with jump velocity, jump height, muscle power, fitness, and force.

Even in the absence of visible symptoms of vitamin D deficiency, low levels of vitamin D affect the various ways muscles work and can affect overall strength and physical fitness.

*< J Clin Endocrinol Metab 2009 Feb;94(2):559-63. >*