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Vitamin D deficiency can interfere with bone mineralization and lead to rickets. It is also linked to cardiovascular disease, insulin resistance, and hypertension. In the March 2009 issue of the journal Pediatrics, researchers from Cornell University report a significant prevalence of vitamin D deficiency among American teens.

VITAMIN D DEFICIENCY INCREASING IN AMERICAN TEENS

Accurate estimates of the prevalence of vitamin D deficiency are difficult due to a lack of agreement on a level of optimal vitamin D status. Currently, individuals with serum vitamin D levels of <11 ng/mL are classified as vitamin D deficient. At a recent meeting for vitamin D nutritional guidelines, experts collectively have proposed that minimum levels be at least 20 ng/mL.

Under the new guideline, the prevalence of deficiency among American teens increased from 2 percent to 14 percent. African American teens were 20 times more likely to be deficient than Caucasians. Results were taken from 2,955 participants in the National Health and Nutrition Examination Survey (NHANES) III aged 12 to 19.

The risk of deficiency was more than double for females compared with males. It was also found that overweight adolescents had increased risk of deficiency compared with normal-weight adolescents. As childhood obesity increases, vitamin D deficiencies are likely to increase as well. Researchers noted that appropriate nutrition could potentially solve both problems.

Meeting minimum nutritional vitamin D requirements in teens is difficult since they would need to consume at least four glasses of fortified milk daily or its equivalent. Routine supplementation with at least 400 IU of vitamin D was suggested as another alternative to help reduce the prevalence of this dietary deficiency.

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