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**Prevalence of severe hypovitaminosis D in patients with persistent, nonspecific musculoskeletal pain.**[Plotnikoff GA, Ougley JM.](#)Department of Internal Medicine, University of Minnesota Medical School, Minneapolis, Minn, USA.  
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**OBJECTIVE:** To determine the prevalence of hypovitaminosis D in primary care outpatients with persistent, nonspecific musculoskeletal pain syndromes refractory to standard therapies. **PATIENTS AND METHODS:** In this cross-sectional study, 150 patients presented consecutively between February 2000 and June 2002 with persistent, nonspecific musculoskeletal pain to the Community University Health Care Center, a university-affiliated inner city primary care clinic in Minneapolis, Minn (45 degrees north). Immigrant (n = 83) and nonimmigrant (n = 67) persons of both sexes, aged 10 to 65 years, from 6 broad ethnic groups were screened for vitamin D status. Serum 25-hydroxyvitamin D levels were determined by radioimmunoassay. **RESULTS:** Of the African American, East African, Hispanic, and American Indian patients, 100% had deficient levels of vitamin D (< or = 20 ng/mL). Of all patients, 93% (140/ 150) had deficient levels of vitamin D (mean, 12.08 ng/mL; 95% confidence interval, 11.18-12.99 ng/mL). Nonimmigrants had vitamin D levels as deficient as immigrants (P = .48). Levels of vitamin D in men were as deficient as in women (P = .42). Of all patients, 28% (42/150) had severely deficient vitamin D levels (< or = 8 ng/mL), including 55% of whom were younger than 30 years. Five patients, 4 of whom were aged 35 years or younger, had vitamin D serum levels below the level of detection. The severity of deficiency was disproportionate by age for young women (P < .001), by sex for East African patients (P < .001), and by race for African American patients (P = .006). Season was not a significant factor in determining vitamin D serum levels (P = .06). **CONCLUSION:** All patients with persistent, nonspecific musculoskeletal pain are at high risk for the consequences of unrecognized and untreated severe hypovitaminosis D. This risk extends to those considered at low risk for vitamin D deficiency: nonelderly, nonhousebound, or nonimmigrant persons of either sex. Nonimmigrant women of childbearing age with such pain appear to be at greatest risk for misdiagnosis or delayed diagnosis. Because osteomalacia is a known cause of persistent, nonspecific musculoskeletal pain, screening all outpatients with such pain for hypovitaminosis D should be standard practice in clinical care.

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