Vitamin D deficiency: implications in the rehabilitation setting.

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OBJECTIVE: Vitamin D deficiency, which can result from inadequate sun exposure, dietary intake, or problems with absorption, is rarely documented in the rehabilitation literature. Most likely, it is rarely thought of by the rehabilitation profession. This is problematic because vitamin D deficiency can present as musculoskeletal pain, which is commonly seen in both outpatient clinics and inpatient rehabilitation units. The populations with the greatest risk include the homebound elderly, people with pigmented skin, people with cultural and social avoidance of the sun, people who live in wintertime in climates above and below latitudes of 35 degrees, and people with gastrointestinal malabsorption.

DESIGN: The review was done using PubMed, Ovid, and MDConsult using the search terms pain, chronic pain, musculoskeletal pain, vitamin D deficiency, and osteomalacia. The search revealed 107 articles and was narrowed down to 51 articles that focused on vitamin D deficiency and its musculoskeletal manifestations.

RESULTS: A direct correlation was noted between vitamin D deficiency and musculoskeletal pain. At-risk populations are not acquiring enough vitamin D through sun exposure, and the current recommended daily allowances from dietary sources including supplements are too low to compensate for this lack of sun exposure. Treatment of vitamin D deficiency produced an increase in muscle strength and a marked decrease in back and lower-limb pain within 6 mos.

CONCLUSION: Vitamin D deficiency should be included in the differential diagnosis in the evaluation of musculoskeletal pain complaints in the rehabilitation setting, and treatment of any identified deficiency should be considered a potentially important component of the treatment regimen.

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