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Vitamin D experts advise that testing for serum vitamin D levels is the only way to correctly diagnose and properly treat vitamin D insufficiencies.

TESTING IS NECESSARY FOR DIAGNOSIS AND TREATMENT OF VITAMIN D DEFICIENCY

The recent abundance of research implicating vitamin D status as a factor in many diseases makes it difficult to overstate the potential medical, social, and economic implications of treating vitamin D deficiency. Most vitamin D experts now consider vitamin D deficiency the rule, not the exception. This is of key importance now that vitamin D deficiency is considered a factor in a host of diseases other than cancer and bone diseases. The metabolic activity of vitamin D targets more than 200 human genes in a wide variety of tissues, meaning it has a multitude of targets and actions in the body.

It is often believed that government agencies designed the current recommended daily intake to prevent or treat vitamin D deficiency. However, the official recommendation was only intended as a guideline for preventing a specific metabolic bone disease. The recommendations were not designed, nor are they effective, in preventing vitamin D deficiency as it relates to other health conditions. Unfortunately, the guidelines have resulted in reluctance by physicians to aggressively treat vitamin D insufficiencies with dosages higher than the established recommendations. The authors of a recent paper submit that it is of utmost importance to routinely test for vitamin D levels, since assessing serum 25-hydroxy vitamin D is currently the only way to diagnose deficiency and assure that treatment is safe and adequate.

The authors also assert that treatment should be sufficient to maintain levels of at least 40 ng/mL year-round. There are currently three ways to prevent or treat vitamin D deficiencies: sunlight, artificial UV-B radiation (e.g. tanning booths) or supplementation. Although all three

methods are effective and preferable to no treatment, appropriate supplementation is considered the most safe and effective.

Large populations of people in higher and temperate latitudes are exposed to long winters with minimal sun exposure. These individuals may require relatively high levels of supplementation to achieve adequate vitamin D levels. In addition, new research has indicated that vitamin D deficiencies are common even in sunny climates. The authors believe that levels of 5000 IU per day may be required in obese, aged, and/or dark-skinned individuals to maintain adequate vitamin D levels during the winter, and since physicians are typically uncomfortable with these levels, testing serum vitamin D is of extreme importance.

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