Shedding Light on Vitamin D Testing

By Reshma Ariga M.D.

Alverno Clinical Laboratories is now offering an FDA approved 25-hydroxy-vitamin D total assay using a chemiluminescent immunoassay for quantitative determination with a turnaround time of less than 24 hours.

Vitamin D testing is useful for diagnosing vitamin D deficiency, rickets, hypervitaminosis D, and monitoring of Vitamin D replacement therapy. Recent research has also linked vitamin D deficiency to a wide variety of other disease states. Monitoring vitamin D status offers patients one potential option to reduce a possible source of risk for common disorders like depression, cancer, heart attack and diabetes.

25-hydroxy-vitamin D is the major circulating form of the vitamin and the best indicator of vitamin D status. The exact level reflecting optimal body stores remains unknown and is dependent on test methodology and population. Severe deficiency (<10 ng/mL) may lead to rickets in children and osteomalacia in adults. Mild-to-moderate deficiency (10-30 ng/mL) can be associated with osteoporosis or secondary hyperparathyroidism. Suboptimal 25-hydroxy-vitamin D levels may occur due to lack of sunshine exposure, inadequate intake, malabsorption, depressed hepatic vitamin D 25-hydroxylase activity, advanced liver disease and enzyme-inducing drugs that increase its metabolism. In contrast, hypervitaminosis D (>100 ng/mL) is rare, and is seen only after prolonged exposure to extremely high doses of vitamin D and can result in severe hypercalcemia and hyperphosphatemia[2].

Circulating 25-hydroxy-vitamin D or total vitamin D (D_2 and D_3) measurement offers an important clinical tool in the diagnosis, management and prevention of a variety of diseases. As new studies reveal the expanding roles for this vitamin, more clinicians are seeing the potential benefits of assessing vitamin D status among patients of all ages on a regular, continuing basis[1].

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References:
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A recent study reports over 84% of young healthy men and women are deficient or insufficient in Vitamin D levels.[1]

Sensible exposure to sunlight, typically no more than 5 to 10 minutes a day between 10 a.m. and 3 p.m. during seasons when vitamin D can be produced in the skin, will satisfy most people's vitamin D requirement.[2]

Alverno Clinical Laboratories provides better than 24 hour turnaround time for Vitamin D testing. Results will provide a single patient value that is calculated based on Vitamin D2 and D3 levels. Call us at 800-937-5521 to learn about Alverno's Vitamin D testing.

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