

25-Hydroxy Vitamin D Test

What is Vitamin D and why do I need it?

Vitamin D is a family of compounds that is essential for the proper growth and formation of teeth and bones. Vitamin D helps your body absorb calcium, and maintains bone strength throughout your life. Your body produces Vitamin D when the sun's UV rays contact your skin. Other sources of the vitamin include fish, eggs, and fortified dairy products. It's also available as a dietary supplement for those who may not get enough exposure to sunlight, or lack Vitamin D in their food intake.

Vitamin D deficiency can lead to several health issues over time. If your Vitamin D levels are low and they're accompanied by bone pain, the deficiency could be affecting your bone density. Without sufficient Vitamin D in the system, your bones will be soft, malformed, and unable to repair themselves normally, resulting in diseases called rickets in children and osteomalacia in adults. Vitamin D has also been shown to influence the growth and differentiation of many other tissues and to help regulate the immune system. These other functions have linked Vitamin D with other disorders, such as autoimmunity and cancer. Low blood levels of the vitamin have been associated with increased risk of death from cardiovascular disease, cognitive impairment in older adults and severe asthma in children.

What is the 25-Hydroxy Vitamin D Test?

The 25-hydroxy Vitamin D test is a simple blood test, and the best way to monitor Vitamin D levels. The amount of 25-hydroxy Vitamin D in your blood is a good indication of how much Vitamin D your body has. The test can determine if your Vitamin D levels are too high or too low.

The test is also known as the 25-OH Vitamin D test and the calcidiol 25-hydroxycholecalciferol test. It can be an important indicator of osteoporosis (bone weakness) and rickets (bone malformation).

Who should get tested?

There are several factors which can increase your risk of Vitamin D deficiency. Young children and the elderly are particularly vulnerable to complications arising from insufficient Vitamin D in their systems.



Other factors that affect Vitamin D levels are:

- Not consuming enough food types that are rich in Vitamin D. This is likely if you follow a strict vegan diet, or are lactose-intolerant.
- Not getting enough exposure to the sun. People who are home-bound or live in northern latitudes or have a profession that keeps them from getting enough sunlight are at risk.
- You have a darker skin tone, since greater amounts of melanin in the skin reduce the amount of sunlight the skin can absorb
- Exclusively breast-feeding babies for prolonged time periods, which would increase their risk of developing Vitamin D deficiency
- You have kidney issues which prevent Vitamin D being converted to its active form in your body. This happens mostly within older age groups
- You've undergone gastric bypass surgery
- Certain medical problems, including Crohn's disease, cystic fibrosis, and celiac disease, can affect your intestine's ability to absorb Vitamin D from the food you eat. Certain people with obesity can also have Vitamin D deficiency, since Vitamin D is extracted from the blood by fat cells, altering its release into the circulation.

When is this test ordered?

Your doctor will order this test if they suspect that you're showing signs of Vitamin D deficiency, or if you're at risk of developing this deficiency.

There are several factors, including your previous medical and test history, which would determine when this test should be ordered for you. If you have low levels of calcium, phosphorus and / or parathyroid hormone, or exhibiting bone weakness, fatigue, loss in muscle mass, hair loss, the 25-hydroxyVitamin D is usually ordered to identify a possible deficiency in Vitamin D.

Known risk factors like being homebound, institutionalized, having low sunlight exposure, obesity or having fat malabsorption can also lead to Vitamin D deficiency. This test is often requested before an individual begins treatment for osteoporosis.

When Vitamin D, calcium, phosphorus, or magnesium supplementation is necessary, Vitamin D levels are sometimes measured to monitor treatment effectiveness. Your doctor may change the recommended dosage based on the results of this test.

Rarely, this test may be done when calcium is high or a person has a disease that might produce excess amounts of Vitamin D, such as sarcoidosis or some forms of lymphoma. It may also occur from taking too many vitamin pills and other nutritional supplements. High doses of Vitamin D can result in a condition called hypervitaminosis D. Hypervitaminosis is a rare but serious condition that could put you at risk for liver or kidney problems.

How can I get tested?

Ask your healthcare provider about getting the 25-Hydroxy Vitamin D Test as part of your health checkups, and to establish your baseline Vitamin D level. Measuring your existing level will help your doctor determine if you need treatment or increase your Vitamin D intake through food, supplements or lifestyle changes. It also equips you and your doctor to monitor your Vitamin D levels in the future.

Understanding your results

Your test report will indicate the Vitamin D levels in the form of nanomoles/liter (nmol/L) or nanograms/milliliter (ng/mL). The results can indicate whether your levels are normal, deficient, insufficient or too high. Your medical history, age, gender and other factors influence the outcome of the tests. It's best to consult your doctor on the next course of action. Your doctor will help explain the results of your test and determine whether further testing or treatment is required.

How is the test performed?

The 25-Hydroxy Vitamin D is a blood test

When will I get my results?

Your test results will be available to your healthcare provider within 2 weeks of sample collection.

Sources

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