

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 Vitamin D 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 25-OH Vitamin D, calcidiol, or 25-hydroxycholecalciferol. It can be an important indicator of osteoporosis (bone weakness) and rickets (bone malformation).

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 that 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.

WHO SHOULD GET TESTED?

The test is for anyone who wants to know their Vitamin D levels or is at risk of developing Vitamin D deficiency. It can indicate nutrition disorders, bone disease or other metabolic issues. If you're experiencing symptoms such as fatigue, bone pain, bone weakness, hair loss, muscle weakness, muscle aches or muscle cramps, you may have Vitamin D deficiency.

WHEN IS THIS TEST ORDERED?

There are several factors, including your previous medical and test history, which would determine when this test should be ordered. Known risk factors like having low Vitamin D intake, low sunlight exposure, obesity, or fat malabsorption can lead to Vitamin D deficiency.

In severe cases, Vitamin D deficiency may be associated with low levels of calcium, phosphorus, and/or parathyroid hormone, and display clinically as bone weakness, fatigue, loss in muscle mass, and/or hair loss. In such cases, 25-Hydroxy Vitamin D is ordered to identify a possible deficiency.

When Vitamin D, calcium, phosphorus, or magnesium supplementation is necessary, Vitamin D levels may be 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 THROUGH MY HEALTHCARE PROVIDER?

Ask your healthcare provider whether 25-Hydroxy Vitamin D testing is appropriate for you. The cost of testing may be covered by provincial healthcare plans for individuals with

osteoporosis, rickets, osteopenia, malabsorption syndromes, and/or renal disease, or for individuals on drugs that affect Vitamin D metabolism. Testing for other purposes, like establishing a baseline level or monitoring appropriate dietary intake, is not covered by provincial healthcare plans.

CAN I PURCHASE THIS TEST FOR MYSELF?

It's now easier than before to complete your 25-Hydroxy Vitamin D Test!

1. Purchase and download a signed request (requisition) form from LifeLabs® store without needing to visit a Healthcare Provider.
2. Complete your lab test at a LifeLabs® Patient Service Centre or through MyVisit™ (ON) (additional fees required for MyVisit™ service).
3. Get your results as early as 24 hours through MyCareCompass™ (for customers with health card numbers) or by calling LifeLabs® with your Lab Visit Number.
4. For patients with abnormal results, a third-party medical group will reach out to review the results.

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.

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 you and your healthcare provider (if ordered through your healthcare provider) as early as 24 hours after our labs have received your sample.

Sources

1. Vitamin D [Fact sheet]. (2014) ods.od.nih.gov/factsheets/VitaminD-HealthProfessional/
2. Lab Tests Online- Vitamin D Test (2016) labtestsonline.org/tests/vitamin-d-tests
3. Harvard School of Public Health: Vitamin D and Health hsph.harvard.edu/nutritionsource/vitamin-d/
4. Institute of Medicine: "Dietary Reference Intakes for Calcium and Vitamin D."