

## 25 Hydroxy Vitamin D

*This information is provided for informational purposes only and is not intended to diagnosis, treat, cure, or prevent disease. Abnormal test values falling outside the Normal Range will be printed in bold and noted in the “Flag” column. Abnormal values should be reviewed by your primary physician and a copy of all testing should be included in your medical record for future reference and comparison.*

The 25-hydroxy vitamin D test measures the amount of 25-hydroxy vitamin D in blood serum. 25-hydroxy vitamin D is the most accurate measure of vitamin D stores in the body.

This essential nutrient is actually a precursor hormone — the building block of a powerful steroid hormone in your body called *calcitriol*. It’s been known for many years that vitamin D is critical to the health of our bones and teeth, but our deeper insight into D’s true role in our health is quite new.

Vitamin D works in concert with other nutrients and hormones in your body to support healthy bone renewal — the ongoing process of mineralization and demineralization that when out of control shows up as *rickets* in children and *osteomalacia* (“soft bones”) in adults.

Researchers are discovering that D also promotes normal cell growth and differentiation throughout the body, a key factor in maintaining hormonal balance and a healthy immune system. It appears that calcitriol actually becomes part of the physical composition of cells, assisting in the buildup and breakdown of healthy tissue — in other words the process that keeps you well. Vitamin D has even been implicated in the prevention of cancer.

25-hydroxy vitamin D is stored in the liver where it is converted from other forms of vitamin D either obtained from the diet or made in the skin by sunlight. 25-hydroxy vitamin D is then changed to its active form, 1,25-dihydroxy vitamin D in the kidney. This active form of vitamin D causes increases in calcium and phosphate by activity primarily on the intestines, kidney and bone.

The recommended range is 30 to 100 ng/mL. Recommended ranges may vary slightly among different laboratories. The Optimal range is 45-50 ng/mL, with some doctors recommending levels as high as 75 ng/mL. Vitamin D deficiency may be characterized by muscle pain, weak bones/fractures, low energy and fatigue, lowered immunity, depression, mood swings, and/or sleep irregularities. Women with renal problems or intestinal concerns (such as Irritable Bowel Syndrome or Crohn’s disease) may be vitamin D deficient because they can neither absorb nor adequately convert this nutrient.

Visit [www.vitaminDcouncil.org](http://www.vitaminDcouncil.org) for additional information on Vitamin D.