
Lab Dept: Chemistry

Test Name: VITAMIN D, 1, 25 DIHYDROXY

General Information

Lab Order Codes: D125

Synonyms: 1,25-Dihydroxycholecalciferol; Calcitriol

CPT Codes: 82652 – Dihydroxyvitamin D, 1, 25-

Test Includes: Vitamin D, 1, 25-Dihydroxy level reported in pg/mL.

Logistics

Test Indications: As a second-order test in the assessment of vitamin D status, especially in patients with renal disease and parathyroid dysfunction. The circulating half life is relatively short and therefore it is not ideal for overall vitamin D assessment/nutritional assessment.

Investigation of some patients with clinical evidence of vitamin D deficiency (eg, vitamin D-dependent rickets due to hereditary deficiency of renal 1-alpha hydroxylase or end-organ resistance to 1,25-dihydroxy vitamin D)

Lab Testing Sections: Chemistry - Sendouts

Referred to: Mayo Medical Laboratories (MML Test: DHVD)

Phone Numbers: MIN Lab: 612-813-6280

STP Lab: 651-220-6550

Test Availability: Daily, 24 hours

Turnaround Time: 2 - 4 days, test set up Monday – Friday.

Special Instructions: See [Patient Preparation](#)

Specimen

Specimen Type: Blood

Container: SST (Gold, marble or red) tube

Draw Volume: 4.5 mL (Minimum: 2.1 mL) blood

Processed Volume:	1.5 mL (Minimum: 0.7 mL) serum
Collection:	Routine venipuncture. Forward to laboratory promptly.
Special Processing:	Lab Staff: Centrifuge specimen, remove serum aliquot into a screw-capped round bottom plastic vial. Store and ship at refrigerated temperatures. Forward promptly. Note: Specimens submitted less than the minimum of 1.2 mL will result in a phone call requesting additional specimen. If more specimen is not available, testing will be canceled.
Patient Preparation:	Patient should be fasting at least 4 hours, recommended but not required.
Sample Rejection:	Gross hemolysis; gross lipemia; grossly icteric; mislabeled or unlabeled specimens

Interpretive

Reference Range:

Females	
0 – 15 years:	24 – 86 pg/mL
≥16 years:	18 – 78 pg/mL
Males	
0 – 15 years:	24 – 86 pg/mL
≥16 years:	18 – 64 pg/mL
<p>Interpretation: 1,25-Dihydroxy vitamin D concentrations are low in chronic renal failure and hypoparathyroidism and high in sarcoidosis and other granulomatous diseases, some malignancies, primary hyperthyroidism, and physiologic hyperparathyroidism.</p> <p>1,25-Dihydroxy vitamin D concentrations are not a reliable indicator of vitamin D toxicity; normal (or even low) results may be seen in such cases.</p>	

Critical Values:	N/A
Limitations:	N/A
Methodology:	Extraction/Liquid Chromatography-Tandem Mass Spectrometry (LC-MS/MS)

References:

[Mayo Medical Laboratories Web Page](#) July 2013

Updates:

7/11/2008: Minimum volume serum increase from 0.65 to 1.2 mL.

11/20/2008: Specimen handling for short specimens.

12/12/2017: Collection container update.