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 <u>Patient Preparation</u>

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 that 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
0 – 15 years.	24 – 60 pg/mL
≥16 years:	18 – 78 pg/mL
Males	
0 – 15 years:	24 – 86 pg/mL
≥16 years:	18 – 64 pg/mL

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.

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.

Critical Values: N/A

Limitations: N/A

Methodology: Extraction/Liquid Chromatography-Tandem Mass Spectrometry (LC-

MS/MS)

Mayo Medical Laboratories Web Page July 2013 References:

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.