

Vitamin D is a fat-soluble vitamin that is naturally present in very few unfortified foods, and is produced endogenously by the skin upon exposure to the sun's UV rays. Vitamin D undergoes two hydroxylation steps for activation; the first occurs in the liver to form 25-OH vitamin D (calcidiol), and the second by the kidney to form 1,25-OH vitamin D (calcitriol). Vitamin D promotes calcium absorption from the gut and maintains calcium and phosphate homeostasis and normal bone mineralization, in addition to several other roles in the body (contributory to hormone and immune regulation).

VITAMIN D DEFICIENCY

To reduce potentially unnecessary medical costs and provide optimal patient care, diagnostic testing should be utilized to provide the greatest clinical utility. Serum 25-OH vitamin D levels should be used to evaluate vitamin D levels in high risk individuals. Deficiency is defined as <20 ng/mL. Testing 1,25-OH vitamin D is not recommended, as it has a short half-life and its concentrations are regulated by PTH, calcium, and phosphate levels.

■ BIOLOGIC FACTORS THAT CONTRIBUTE TO VITAMIN D DEFICIENCY ARE:

- Age
- Obesity
- Fat malabsorption
- Dark pigmentation
- Certain drug use (anticonvulsants, glucocorticoids, antifungals)

■ TESTING FOR VITAMIN D DEFICIENCY IS ONLY INDICATED FOR SPECIFIC CONDITIONS, SUCH AS:

- Osteoporosis
- History of falling
- Osteomalacia
- Rickets
- Chronic renal disease
- Malabsorption syndromes
- Certain drug use (anticonvulsants, glucocorticoids, antifungals)

■ THE U.S. PREVENTATIVE SERVICES TASK FORCE RECOMMENDATION STATEMENT ON SCREENING FOR VITAMIN D DEFICIENCY¹ NOTES:

- a. No national primary care professional organization currently recommends population-wide screening for vitamin D deficiency.
- b. The Endocrinology Society recommends screening for vitamin D only in persons at risk and states that there is no evidence showing benefits of screening at a population level.
- c. No direct evidence that vitamin D screening had any effect on clinical outcomes and treating asymptomatic vitamin D deficiency had no benefits in terms of cancer and type II diabetes management.
- d. Other organizations (American Congress of Obstetricians and Gynecologists, American Geriatric Society, and the National Osteoporosis Foundation recommends testing for vitamin D only as part of osteoporosis management or fall prevention.

As part of BioReference Laboratory's drive to provide value-based and evidence-based testing, vitamin D testing is no longer included in custom laboratory profiles. If your patient is in a high risk category for vitamin D deficiency, please order Vitamin D, 25-OH (test code 0286) as a stand-alone test.

REFERENCES

1. *Annals of Internal Medicine*, 162(2):133-141, 2015

RELEVANT ICD-10 CODES FOR VITAMIN D TESTING

BONE DISEASES			
ICD-10	Description	ICD-10	Description
Z13.8	Screening for osteoporosis	M831.1	Osteomalacia, senile
Z82.62	Family history of osteoporosis	M83.9	Osteomalacia, adult
E55.9	Vitamin D deficiency, unspecified	E55.0	Rickets, active
M81.0	Osteoporosis, age-related	E64.3	Rickets, sequelae
M81.8	Osteoporosis, drug-related	N25.0	Renal osteodystrophy
M81.8	Osteoporosis, idiopathic		

HISTORY OF FALLING			
ICD-10	Description	ICD-10	Description
Z91.81	Adults, history of falling	R29.6	Adults, repeated falls

CHRONIC RENAL DISEASES			
ICD-10	Description	ICD-10	Description
N18.1	Chronic kidney disease, Stage 1	N18.5	Chronic kidney disease, Stage 5
N18.2	Chronic kidney disease, Stage 2	N18.6	End Stage renal disease
N18.3	Chronic kidney disease, Stage 3	N18.9	Chronic kidney disease, unspecified
N18.4	Chronic kidney disease, Stage 4	N25.0	Renal osteodystrophy

MALABSORPTION SYNDROME			
ICD-10	Description	ICD-10	Description
K50.0	Crohn's disease	213.228	Cystic fibrosis, screening
K51.9	Inflammatory bowel disease, ulcerative colitis	214.1	Cystic fibrosis, genetic carrier
E84.0	Cystic fibrosis	K52.0	Radiation enteritis

GRANULOMATOUS DISEASES			
ICD-10	Description	ICD-10	Description
L92.9	Granulomatosis	D86.9	Sarcoidosis
A15.9	Tuberculosis	B39.9	Histoplasmosis

OTHER			
ICD-10	Description	ICD-10	Description
E66.9	Obesity	234.90	Normal pregnancy, unspecified trimester
234.00	Normal 1st pregnancy, unspecified trimester	092.79	Lactation
234.83	Normal pregnancy, 3rd trimester	E21.3	Hyperparathyroidism

This list is intended to assist ordering physicians in providing ICD-10 Diagnosis Codes as required by Medicare and other insurers. It includes the most commonly found out-patient diagnoses (generally without complications), but is not complete. An ICD-10-CM book should be used as a complete reference. The ultimate responsibility for correct coding belongs to the ordering physician.