

Medical Policy



Title: Testing for Vitamin D Deficiency

Professional

Original Effective Date: August 26, 2009
 Revision Date(s): March 8, 2010;
 October 26, 2010; January 28, 2011;
 March 28, 2011; September 29, 2011;
 December 20, 2011; February 5, 2014
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Institutional

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DESCRIPTION

Vitamin D is found in several dietary sources such as fish, eggs, fortified milk, and cod liver oil. The sun also contributes significantly to the daily production of vitamin D, and as little as 10 minutes of exposure is thought to be enough to prevent deficiencies. The term "vitamin D" refers to several different forms of this vitamin. Two forms are important in humans: ergocalciferol (vitamin D-2) and cholecalciferol (vitamin D-3). Vitamin D-2 is synthesized by plants. Vitamin D-3 is synthesized by humans in the skin when it is exposed to ultraviolet-B (UVB) rays from sunlight. Foods may be fortified with vitamin D-2 or D-3. The major biologic function of vitamin D is to maintain normal blood levels of calcium and phosphorus.

Rickets and osteomalacia are classic vitamin D deficiency diseases. In children, vitamin D deficiency causes rickets, which results in skeletal deformities. In adults, vitamin D deficiency can lead to osteomalacia, which results in muscular weakness in addition to weak bones.

According to the American College of Physician's ACP Internist, Vitamin D assays are expensive and can be inaccurate. Rather than testing for Vitamin D deficiency, take a history regarding diet and sun exposure or assume Vitamin D deficiency and treat accordingly with recommended daily supplementation.

Institute of Medicine Report (IOM)

A 2010 IOM report updated guidance on vitamin D and calcium.

The committee reviewed data for more than 1,000 studies and heard testimony from numerous investigators. They noted that there has been a large and unnecessary increase in the number of tests for vitamin D levels in recent years. Vitamin D testing should not be part of routine medical care.

The panel's findings confirmed the benefits of calcium and vitamin D related to bone health. However, reviews of about two dozen other health outcomes—including cancer, cardiovascular disease, hypertension and diabetes—found insufficient and sometimes conflicting data regarding the nutrients' benefits. Solid evidence could not be found that consuming more of either nutrient would protect from chronic diseases ranging from cancer to diabetes to improved immune function.

Endocrine Society

The Endocrine Society has published new practice guidelines that recommend against routinely measuring serum vitamin D levels.

Screening is recommended for those at high risk for deficiency including those with osteoporosis, obesity, or history of falls.

Vitamin D deficiency is defined as serum 25-hydroxyvitamin D level less than 20 ng / ml. Serum assays are notoriously variable.

Recommended dietary intake for children and adults is at least 600 IU daily (800 IU for those age greater than 70). Some at risk adults might require 1500 IU.

Treatment of vitamin D deficiency is indicated mainly for skeletal reasons; evidence also suggests that treatment lowers the incidence of falls in older adults.

POLICY

A. Testing for Vitamin D deficiency is considered **not medically necessary** except when:

1. The recommended vitamin D supplementation is being taken

AND

2. One of the following conditions is present:
 - a. chronic kidney disease
 - b. granulomatous disorder
 - c. hyperthyroidism
 - d. hyperparathyroidism
 - e. heritable disorders of Vitamin D metabolism
 - f. liver failure
 - g. malabsorption
 - h. medications (anti-convulsants, glucocorticoids, oral anti-fungals, AIDs medications)
 - i. obesity
 - j. osteomalacia
 - k. osteopenia
 - l. osteoporosis
 - m. phosphaturia
 - n. rickets
 - o. muscle weakness
 - p. history of falls
 - q. history of vitamin D deficiency
 - r. post transplant

B. Routine screening for vitamin D deficiency is **not medically necessary**.

CODING

The following codes for treatment and procedures applicable to this policy are included below for informational purposes. Inclusion or exclusion of a procedure, diagnosis or device code(s) does not constitute or imply member coverage or provider reimbursement. Please refer to the member's contract benefits in effect at the time of service to determine coverage or non-coverage of these services as it applies to an individual member.

CPT/HCPCS

82306 Vitamin D; 25 hydroxy, includes fraction(s), if performed
 82652 Dihydroxyvitamin D, 1, 25 dihydroxy, includes fraction(s), if performed

DIAGNOSIS

042 Human Immunodeficiency virus (HIV) disease
 135 Sarcoidosis
 242.00 Toxic diffuse goiter without mention of thyrotoxic crisis or storm

242.01	Toxic diffuse goiter with mention of thyrotoxic crisis or storm
242.1	Toxic uninodular goiter
242.10	Toxic uninodular goiter without mention of thyrotoxic crisis or storm
242.11	Toxic uninodular goiter with mention of thyrotoxic crisis or storm
242.20	Toxic multinodular goiter without mention of thyrotoxic crisis or storm
242.21	Toxic multinodular goiter with mention of thyrotoxic crisis or storm
242.30	Toxic nodular goiter, unspecified type, without mention of thyrotoxic crisis or storm
242.31	Toxic nodular goiter, unspecified type, with mention of thyrotoxic crisis or storm
242.90	Thyrotoxicosis without mention of goiter or other cause, without mention of thyrotoxic crisis or storm
242.91	Thyrotoxicosis without mention of goiter or other cause, with mention of thyrotoxic crisis or storm
252.00-	Hyperparathyroidism (code range)
252.08	
252.1	Hypoparathyroidism
263.0	Malnutrition of moderate degree
263.1	Malnutrition of mild degree
263.2	Arrested development following protein-calorie malnutrition
263.8	Other protein-calorie malnutrition
268.0	Rickets, active
268.1	Rickets, late effect
268.2	Osteomalacia, unspecified
268.9	Vitamin D deficiency, unspecified
275.3	Disorders of phosphorus metabolism
275.41	Hypocalcemia
275.49	Other disorders of calcium metabolism
277.00	Cystic fibrosis; without mention of meconium ileus
277.02	Cystic fibrosis; with pulmonary manifestations
277.03	Cystic fibrosis; with gastrointestinal manifestations
277.09	Cystic fibrosis; with other manifestations
278.00	Obesity, unspecified
278.01	Morbid obesity
345.00-	Epilepsy and recurrent seizures (code range)
345.91	
555.0	Regional enteritis, small intestine
555.1	Regional enteritis, large intestine
555.2	Regional enteritis, small intestine with large intestine
555.9	Regional enteritis, unspecified site
556.0	Ulcerative (chronic) enterocolitis
556.1	Ulcerative (chronic) ileocolitis
556.2	Ulcerative (chronic) proctitis
556.3	Ulcerative (chronic) proctosigmoiditis
556.6	Universal ulcerative (chronic) colitis
556.8	Other colitis
556.9	Ulcerative colitis, unspecified
571.0-	Chronic liver disease and cirrhosis (code range)
571.9	
577.1	Chronic pancreatitis

579.0-	Intestinal malabsorption (code range)
579.9	
585.2	Chronic kidney disease, Stage II (mild)
585.3	Chronic kidney disease, Stage III (moderate)
585.4	Chronic kidney disease, Stage IV (severe)
585.5	Chronic kidney disease, Stage V
728.87	Muscle weakness (generalized)
733.00-	Osteoporosis (code range)
733.09	
733.90	Disorder of bone and cartilage
775.4	Hypocalcemia and hypomagnesemia of newborn

ICD-10 Diagnosis (*Effective October 1, 2014*)

B20	Human immunodeficiency virus [HIV] disease
D86.0	Sarcoidosis of lung
D86.1	Sarcoidosis of lymph nodes
D86.2	Sarcoidosis of lung with sarcoidosis of lymph nodes
D86.3	Sarcoidosis of skin
D86.81	Sarcoid meningitis
D86.82	Multiple cranial nerve palsies in sarcoidosis
D86.83	Sarcoid iridocyclitis
D86.84	Sarcoid pyelonephritis
D86.85	Sarcoid myocarditis
D86.86	Sarcoid arthropathy
D86.87	Sarcoid myositis
D86.89	Sarcoidosis of other sites
D86.9	Sarcoidosis, unspecified
E05.00	Thyrotoxicosis with diffuse goiter without thyrotoxic crisis or storm
E05.01	Thyrotoxicosis with diffuse goiter with thyrotoxic crisis or storm
E05.10	Thyrotoxicosis with toxic single thyroid nodule without thyrotoxic crisis or storm
E05.11	Thyrotoxicosis with toxic single thyroid nodule with thyrotoxic crisis or storm
E05.20	Thyrotoxicosis with toxic multinodular goiter without thyrotoxic crisis or storm
E05.21	Thyrotoxicosis with toxic multinodular goiter with thyrotoxic crisis or storm
E05.20	Thyrotoxicosis with toxic multinodular goiter without thyrotoxic crisis or storm
E05.21	Thyrotoxicosis with toxic multinodular goiter with thyrotoxic crisis or storm
E21.0	Primary hyperparathyroidism
E21.1	Secondary hyperparathyroidism, not elsewhere classified
E21.2	Other hyperparathyroidism
E20.0	Idiopathic hypoparathyroidism
E89.2	Postprocedural hypoparathyroidism
E44.0	Moderate protein-calorie malnutrition
E44.1	Mild protein-calorie malnutrition
E45	Retarded development following protein-calorie malnutrition
E55.0	Rickets, active
E64.3	Sequelae of rickets
M83.0	Puerperal osteomalacia
M83.1	Senile osteomalacia
M83.2	Adult osteomalacia due to malabsorption

M83.3	Adult osteomalacia due to malnutrition
M83.4	Aluminum bone disease
M83.5	Other drug-induced osteomalacia in adults
M83.9	Adult osteomalacia, unspecified
E83.30	Disorder of phosphorus metabolism, unspecified
E83.31	Familial hypophosphatemia
E83.32	Hereditary vitamin D-dependent rickets (type 1) (type 2)
E83.39	Other disorders of phosphorus metabolism
E83.51	Hypocalcemia
E83.59	Other disorders of calcium metabolism
E84.9	Cystic fibrosis, unspecified
E84.0	Cystic fibrosis with pulmonary manifestations
E84.19	Cystic fibrosis with other intestinal manifestations
E84.8	Cystic fibrosis with other manifestations
E66.09	Other obesity due to excess calories
E66.1	Drug-induced obesity
E66.8	Other obesity
E66.01	Morbid (severe) obesity due to excess calories
G40.309	Generalized idiopathic epilepsy and epileptic syndromes, not intractable, without status epilepticus
G40.309	Generalized idiopathic epilepsy and epileptic syndromes, not intractable, without status epilepticus
G40.301	Generalized idiopathic epilepsy and epileptic syndromes, not intractable, with status epilepticus
G40.301	Generalized idiopathic epilepsy and epileptic syndromes, not intractable, with status epilepticus
G40.201	Localization-related (focal) (partial) symptomatic epilepsy and epileptic syndromes with complex partial seizures, not intractable, with status epilepticus
G40.209	Localization-related (focal) (partial) symptomatic epilepsy and epileptic syndromes with complex partial seizures, not intractable, without status epilepticus
G40.211	Localization-related (focal) (partial) symptomatic epilepsy and epileptic syndromes with complex partial seizures, intractable, with status epilepticus
G40.219	Localization-related (focal) (partial) symptomatic epilepsy and epileptic syndromes with complex partial seizures, intractable, without status epilepticus
G40.001	Localization-related (focal) (partial) idiopathic epilepsy and epileptic syndromes with seizures of localized onset, not intractable, with status epilepticus
G40.009	Localization-related (focal) (partial) idiopathic epilepsy and epileptic syndromes with seizures of localized onset, not intractable, without status epilepticus
G40.101	Localization-related (focal) (partial) symptomatic epilepsy and epileptic syndromes with simple partial seizures, not intractable, with status epilepticus
G40.109	Localization-related (focal) (partial) symptomatic epilepsy and epileptic syndromes with simple partial seizures, not intractable, without status epilepticus
G40.011	Localization-related (focal) (partial) idiopathic epilepsy and epileptic syndromes with seizures of localized onset, intractable, with status epilepticus
G40.019	Localization-related (focal) (partial) idiopathic epilepsy and epileptic syndromes with seizures of localized onset, intractable, without status epilepticus
G40.111	Localization-related (focal) (partial) symptomatic epilepsy and epileptic syndromes with simple partial seizures, intractable, with status epilepticus

G40.119	Localization-related (focal) (partial) symptomatic epilepsy and epileptic syndromes with simple partial seizures, intractable, without status epilepticus
G40.401	Other generalized epilepsy and epileptic syndromes, not intractable, with status epilepticus
G40.409	Other generalized epilepsy and epileptic syndromes, not intractable, without status epilepticus
G40.411	Other generalized epilepsy and epileptic syndromes, intractable, with status epilepticus
G40.419	Other generalized epilepsy and epileptic syndromes, intractable, without status epilepticus
G40.101	Localization-related (focal) (partial) symptomatic epilepsy and epileptic syndromes with simple partial seizures, not intractable, with status epilepticus
G40.109	Localization-related (focal) (partial) symptomatic epilepsy and epileptic syndromes with simple partial seizures, not intractable, without status epilepticus
G40.111	Localization-related (focal) (partial) symptomatic epilepsy and epileptic syndromes with simple partial seizures, intractable, with status epilepticus
G40.119	Localization-related (focal) (partial) symptomatic epilepsy and epileptic syndromes with simple partial seizures, intractable, without status epilepticus
G40.101	Localization-related (focal) (partial) symptomatic epilepsy and epileptic syndromes with simple partial seizures, not intractable, with status epilepticus
G40.109	Localization-related (focal) (partial) symptomatic epilepsy and epileptic syndromes with simple partial seizures, not intractable, without status epilepticus
G40.501	Epileptic seizures related to external causes, not intractable, with status epilepticus
G40.509	Epileptic seizures related to external causes, not intractable, without status epilepticus
G40.801	Other epilepsy, not intractable, with status epilepticus
G40.802	Other epilepsy, not intractable, without status epilepticus
G40.812	Lennox-Gastaut syndrome, not intractable, without status epilepticus
G40.821	Epileptic spasms, not intractable, with status epilepticus
G40.822	Epileptic spasms, not intractable, without status epilepticus
G40.89	Other seizures
G40.A01	Absence epileptic syndrome, not intractable, with status epilepticus
G40.A09	Absence epileptic syndrome, not intractable, without status epilepticus
G40.B01	Juvenile myoclonic epilepsy, not intractable, with status epilepticus
G40.B09	Juvenile myoclonic epilepsy, not intractable, without status epilepticus
G40.111	Localization-related (focal) (partial) symptomatic epilepsy and epileptic syndromes with simple partial seizures, intractable, with status epilepticus
G40.119	Localization-related (focal) (partial) symptomatic epilepsy and epileptic syndromes with simple partial seizures, intractable, without status epilepticus
G40.811	Lennox-Gastaut syndrome, not intractable, with status epilepticus
G40.813	Lennox-Gastaut syndrome, intractable, with status epilepticus
G40.814	Lennox-Gastaut syndrome, intractable, without status epilepticus
G40.823	Epileptic spasms, intractable, with status epilepticus
G40.824	Epileptic spasms, intractable, without status epilepticus
G40.A11	Absence epileptic syndrome, intractable, with status epilepticus
G40.A19	Absence epileptic syndrome, intractable, without status epilepticus
G40.B11	Juvenile myoclonic epilepsy, intractable, with status epilepticus
G40.B19	Juvenile myoclonic epilepsy, intractable, without status epilepticus

G40.901	Epilepsy, unspecified, not intractable, with status epilepticus
G40.909	Epilepsy, unspecified, not intractable, without status epilepticus
G40.911	Epilepsy, unspecified, intractable, with status epilepticus
G40.919	Epilepsy, unspecified, intractable, without status epilepticus
K50.00	Crohn's disease of small intestine without complications
K50.018	Crohn's disease of small intestine with other complication
K50.019	Crohn's disease of small intestine with unspecified complications
K50.10	Crohn's disease of large intestine without complications
K50.118	Crohn's disease of large intestine with other complication
K50.119	Crohn's disease of large intestine with unspecified complications
K50.80	Crohn's disease of both small and large intestine without complications
K50.818	Crohn's disease of both small and large intestine with other complication
K50.819	Crohn's disease of both small and large intestine with unspecified complications
K50.90	Crohn's disease, unspecified, without complications
K50.918	Crohn's disease, unspecified, with other complication
K50.919	Crohn's disease, unspecified, with unspecified complications
K51.80	Other ulcerative colitis without complications
K51.80	Other ulcerative colitis without complications
K51.20	Ulcerative (chronic) proctitis without complications
K51.218	Ulcerative (chronic) proctitis with other complication
K51.219	Ulcerative (chronic) proctitis with unspecified complications
K51.30	Ulcerative (chronic) rectosigmoiditis without complications
K51.318	Ulcerative (chronic) rectosigmoiditis with other complication
K51.319	Ulcerative (chronic) rectosigmoiditis with unspecified complications
K51.00	Ulcerative (chronic) pancolitis without complications
K51.018	Ulcerative (chronic) pancolitis with other complication
K51.019	Ulcerative (chronic) pancolitis with unspecified complications
K51.80	Other ulcerative colitis without complications
K51.818	Other ulcerative colitis with other complication
K51.819	Other ulcerative colitis with unspecified complications
K51.90	Ulcerative colitis, unspecified, without complications
K51.918	Ulcerative colitis, unspecified with other complication
K51.919	Ulcerative colitis, unspecified with unspecified complications
K70.0	Alcoholic fatty liver
K70.10	Alcoholic hepatitis without ascites
K70.11	Alcoholic hepatitis with ascites
K70.2	Alcoholic fibrosis and sclerosis of liver
K70.30	Alcoholic cirrhosis of liver without ascites
K70.31	Alcoholic cirrhosis of liver with ascites
K70.40	Alcoholic hepatic failure without coma
K70.41	Alcoholic hepatic failure with coma
K73.9	Chronic hepatitis, unspecified
K73.0	Chronic persistent hepatitis, not elsewhere classified
K75.4	Autoimmune hepatitis
K73.1	Chronic lobular hepatitis, not elsewhere classified
K73.2	Chronic active hepatitis, not elsewhere classified
K73.8	Other chronic hepatitis, not elsewhere classified
K74.0	Hepatic fibrosis

K74.69	Other cirrhosis of liver
K74.3	Primary biliary cirrhosis
K74.4	Secondary biliary cirrhosis
K75.81	Nonalcoholic steatohepatitis (NASH)
K74.1	Hepatic sclerosis
K74.2	Hepatic fibrosis with hepatic sclerosis
K86.0	Alcohol-induced chronic pancreatitis
K86.1	Other chronic pancreatitis
K90.0	Celiac disease
K90.1	Tropical sprue
K90.2	Blind loop syndrome, not elsewhere classified
K91.2	Postsurgical malabsorption, not elsewhere classified
K90.3	Pancreatic steatorrhea
K90.4	Malabsorption due to intolerance, not elsewhere classified
K90.89	Other intestinal malabsorption
K90.9	Intestinal malabsorption, unspecified
N18.2	Chronic kidney disease, stage 2 (mild)
N18.3	Chronic kidney disease, stage 3 (moderate)
N18.4	Chronic kidney disease, stage 4 (severe)
N18.5	Chronic kidney disease, stage 5
M62.81	Muscle weakness (generalized)
M81.0	Age-related osteoporosis without current pathological fracture
M81.0	Age-related osteoporosis without current pathological fracture
M81.8	Other osteoporosis without current pathological fracture
M81.8	Other osteoporosis without current pathological fracture
M81.6	Localized osteoporosis [Lequesne]
M81.8	Other osteoporosis without current pathological fracture
M85.9	Disorder of bone density and structure, unspecified
M89.9	Disorder of bone, unspecified
M94.9	Disorder of cartilage, unspecified
P71.0	Cow's milk hypocalcemia in newborn
P71.1	Other neonatal hypocalcemia
P71.2	Neonatal hypomagnesemia
P71.3	Neonatal tetany without calcium or magnesium deficiency
P71.4	Transitory neonatal hypoparathyroidism
P71.8	Other transitory neonatal disorders of calcium and magnesium metabolism
P71.9	Transitory neonatal disorder of calcium and magnesium metabolism, unspecified

REVISIONS

03-08-2010	Updated Description section
	In Coding Section: <ul style="list-style-type: none"> ▪ Removed CPT code: 82307 (effective 01/01/2010) ▪ Updated wording for CPT codes: 82306, 82652 (effective 01/01/2010)
	Updated References
10-26-2010	Updated Description section

	<p>In Policy section:</p> <ul style="list-style-type: none"> ▪ To emphasize the need for recommended vitamin D supplementation prior to testing, revised the wording from: "A. Conditions for which testing for vitamin D deficiency may be considered medically necessary, include:" to: "A. Testing for vitamin D deficiency is considered not medically necessary except when: 1. The recommended vitamin D supplementation is being taken AND 2. One of the following conditions is present:" <p>In Coding section:</p> <ul style="list-style-type: none"> ▪ Updated diagnosis coding from 345.0-345.9 to 345.00-345.91
01-28-11	<p>Updated Description section.</p> <p>Updated Reference section.</p> <p>In Coding section:</p> <ul style="list-style-type: none"> ▪ Addition of diagnosis codes: 252.1 and 775.4.
03-28-2011	<p>In Coding section:</p> <ul style="list-style-type: none"> ▪ Addition of Diagnosis codes: 242.00-242.31, 242.90, 242.91. ▪ Removed Diagnosis code 268.9. <p>Updated Reference section</p>
09-29-2011	<p>Updated the Description section.</p> <p>In the Policy Language section:</p> <ul style="list-style-type: none"> ▪ In Item A, #2, h, added "oral anti-fungals," ▪ In Item A, #2, added the following: <ul style="list-style-type: none"> ○ "o. muscle weakness ○ p. history of falls ○ q. history of vitamin D deficiency" <p>In the Coding section:</p> <ul style="list-style-type: none"> ▪ Added the following diagnosis codes: 135, 263-263.8, 268.9, 275.41, 275.49, 555.0-555.9, 556.0, 556.1, 556.2, 556.3, 556.6, 556.8, 556.9, 577.1, 579.0-579.9, 728.87 <p>Updated the Reference section.</p>
12-20-2011	<p>In the Coding Section:</p> <ul style="list-style-type: none"> ▪ Added the following diagnosis codes: 277.00, 277.02, 277.03, 277.9
02-05-2014	<p>Policy reviewed.</p> <p>In Policy section:</p> <ul style="list-style-type: none"> ▪ In Item A, 2, inserted "r. Post transplant" <p>In Coding section:</p> <ul style="list-style-type: none"> ▪ Added ICD-10 Diagnosis (<i>Effective October 1, 2014</i>)

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8. Holick MF et al. Evaluation, Treatment, and Prevention of Vitamin D deficiency: An Endocrine Society Clinical Practice Guideline. *J Clin Endocrinol Metab* 2011 June 6.

Other References:

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