



## 190.22 - Thyroid Testing

### Description

Thyroid function studies are used to delineate the presence or absence of hormonal abnormalities of the thyroid and pituitary glands. These abnormalities may be either primary or secondary and often but not always accompany clinically defined signs and symptoms indicative of thyroid dysfunction.

Laboratory evaluation of thyroid function has become more scientifically defined. Tests can be done with increased specificity, thereby reducing the number of tests needed to diagnose and follow treatment of most thyroid disease. Measurements of serum sensitive thyroid-stimulating hormone (TSH) levels, complemented by determination of thyroid hormone levels [free thyroxine (fT-4) or total thyroxine (T4) with Triiodothyronine (T3) uptake] are used for diagnosis and follow-up of patients with thyroid disorders. Additional tests may be necessary to evaluate certain complex diagnostic problems or on hospitalized patients, where many circumstances can skew tests results. When a test for total thyroxine (total T4 or T4 radioimmunoassay) or T3 uptake is performed, calculation of the free thyroxine index (FTI) is useful to correct for abnormal results for either total T4 or T3 uptake due to protein binding effects.

### HCPCS Codes (Alphanumeric, CPT<sup>®</sup> AMA)

Code	Description
84436	Thyroxine; total
84439	Thyroxine; free
84443	Thyroid stimulating hormone (TSH)
84479	Thyroid hormone (T3 or T4) uptake or thyroid hormone binding ratio (THBR)

### ICD-9-CM Codes Covered by Medicare Program

The individual ICD-9-CM codes included in code ranges in the table below can be viewed on CMS' website under Downloads: Lab Code List. The link is: <http://www.cms.gov/Medicare/Coverage/CoverageGenInfo/LabNCDsICD9.html>

Code	Description
017.50-017.56	Tuberculosis of the thyroid gland
183.0	Malignant neoplasm of ovary
193	Malignant neoplasm of thyroid gland
194.8	Malignant neoplasm of other endocrine glands and related structures
198.89	Secondary malignant neoplasm of the thyroid
220	Benign neoplasm of ovary
226	Benign neoplasm of thyroid gland
227.3	Benign neoplasm of pituitary gland and craniopharyngeal duct
234.8	Carcinoma in situ of other and unspecified sites
237.4	Neoplasm of uncertain behavior of other and unspecified endocrine glands

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Code	Description
239.7	Neoplasm of unspecified nature, thyroid gland
240.0-240.9	Goiter specified and unspecified
241.0-241.9	Nontoxic nodular goiter
242.00-242.91	Thyrotoxicosis with or without goiter
243	Congenital hypothyroidism
244.0-244.9	Acquired hypothyroidism
245.0-245.9	Thyroiditis
246.0-246.9	Other disorders of thyroid
249.00-249.01	Secondary diabetes mellitus without mention of complication
249.10-249.11	Secondary diabetes mellitus with ketoacidosis
249.20-249.21	Secondary diabetes mellitus with hyperosmolarity
249.30-249.31	Secondary diabetes mellitus with other coma
249.40-249.41	Secondary diabetes mellitus with renal manifestations
249.50-249.51	Secondary diabetes mellitus with ophthalmic manifestations
249.60-249.61	Secondary diabetes mellitus with neurological manifestations
249.70-249.71	Secondary diabetes mellitus with peripheral circulatory disorders
249.80-249.81	Secondary diabetes mellitus with other specified manifestations
249.90-249.91	Secondary diabetes mellitus with unspecified complication
250.00-250.93	Diabetes mellitus
252.1	Hypoparathyroidism
253.1	Other and unspecified anterior pituitary hyper function
253.2	Panhypopituitarism
253.3	Pituitary dwarfism
253.4	Other anterior pituitary disorders
253.7	Iatrogenic pituitary disorders
255.2	Adrenogenital disorders
255.41	Glucocorticoid deficiency
255.42	Mineralocorticoid deficiency
256.31-256.39	Ovarian failure
257.2	Testicular hypofunction
258.0 – 258.9	Polyglandular dysfunction and related disorders
262	Malnutrition, severe
263.0-263.9	Malnutrition, other and unspecified
266.0	Ariboflavinosis
272.0	Pure hypercholesterolemia
272.2	Mixed hyperlipidemia
272.4	Other and unspecified hyperlipidemia
275.40-275.49	Calcium disorders
275.5	Hungry bone syndrome
276.0	Hyposmolality and/or hypernatremia
276.1	Hyposmolality and/or hyponatremia

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Code	Description
278.3	Hypercarotenemia
279.41	Autoimmune lymphoproliferative syndrome
279.49	Autoimmune disease, not elsewhere classified
281.0	Pernicious anemia
281.9	Unspecified deficiency anemia
283.0	Autoimmune hemolytic anemia
285.9	Anemia, unspecified
290.0	Senile dementia, uncomplicated
290.10-290.13	Presenile dementia
290.20-290.21	Senile dementia with delusional or depressive features
290.3	Senile dementia with delirium
293.0-293.1	Delirium
293.81-293.89	Other specified transient mental disorders due to conditions classified elsewhere
294.8	Other persistent mental disorders due to conditions classified elsewhere
296.00-296.99	Episodic mood disorders
297.0	Paranoid state, simple
297.1	Delusional disorder
297.9	Unspecified paranoid state
298.3	Acute paranoid reaction
300.00-300.09	Anxiety states
307.9	Other and unspecified special symptoms or syndromes NEC
310.1	Personality change due to conditions classified elsewhere
311	Depressive disorder, NEC
327.00	Organic insomnia, unspecified
327.01	Insomnia due to medical condition classified elsewhere
327.09	Other organic insomnia
327.29	Other organic sleep apnea
327.52	Sleep related leg cramps
327.8	Other Organic sleep disorders
331.0, 331.11, 331.19, 331.2	Alzheimer's, pick's disease, Senile degeneration of brain
331.83	Mild cognitive impairment, so stated
333.1	Essential and other specified forms of tremor
333.99	Other extrapyramidal diseases and abnormal movement disorders
354.0	Carpal Tunnel syndrome
356.9	Idiopathic peripheral neuropathy, unspecified polyneuropathy
358.1	Myasthenic syndromes in diseases classified elsewhere
359.5	Myopathy in endocrine diseases classified elsewhere
359.9	Myopathy, unspecified
368.2	Diplopia

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Code	Description
372.71	Conjunctival hyperemia
372.73	Conjunctival edema
374.41	Lid retraction or lag
374.82	Eyelid edema
376.21	Thyrotoxic exophthalmos
376.22	Exophthalmic ophthalmoplegia
376.30-376.31	Exophthalmic conditions, unspecified and constant
376.33-376.34	Orbital edema or congestion, intermittent exophthalmos
378.50-378.55	Paralytic strabismus
401.0-401.9	Essential hypertension
403.00-403.91	Hypertensive chronic kidney disease
404.00-404.93	Hypertensive heart and chronic kidney disease
423.9	Unspecified disease of pericardium
425.7	Nutritional and metabolic cardiomyopathy
427.0	Paroxysmal supraventricular tachycardia
427.2	Paroxysmal tachycardia, unspecified
427.31	Atrial fibrillation
427.89	Other specified cardiac dysrhythmia
427.9	Cardiac dysrhythmia, unspecified
428.0	Congestive heart failure, unspecified
428.1	Left heart failure
429.3	Cardiomegaly
511.9	Unspecified pleural effusion
518.81	Acute respiratory failure
529.8	Other specified conditions of the tongue
560.1	Paralytic ileus
564.00-564.09	Constipation
564.7	Megacolon, other than Hirschsprung's
568.82	Peritoneal effusion (chronic)
625.3	Dysmenorrhea
626.0-626.2	Disorders of menstruation
626.4	Irregular menstrual cycle
648.10-648.14	Other current conditions in mother, classifiable elsewhere, but complicating pregnancy, childbirth, or puerperium, thyroid dysfunction
676.20-676.24	Engorgement of breast associated w/ childbirth & disorders of lactation
698.9	Unspecified pruritic disorder
701.1	Keratoderma, acquired (dry skin)
703.8	Other specified diseases of nail (Brittle nails)
704.00-704.09	Alopecia
709.01	Vitiligo
710.0-710.9	Diffuse disease of connective tissue

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Code	Description
728.2	Muscle wasting
728.87	Muscle weakness (generalized)
728.9	Unspecified disorder of muscle, ligament, and fascia
729.1	Myalgia and myositis, unspecified
729.82	Musculoskeletal cramp
730.30-730.39	Periostitis without osteomyelitis
733.02	Idiopathic osteoporosis
733.09	Osteoporosis, drug induced
750.15	Macroglossia, congenital
759.2	Anomaly of other endocrine glands
780.01	Coma
780.02	Transient alteration of awareness
780.09	Alteration of consciousness, other
780.50	Insomnia
780.51	Insomnia with sleep apnea, unspecified
780.52	Insomnia, unspecified
780.60	Fever, unspecified
780.61	Fever presenting with conditions classified elsewhere
780.62	Postprocedural fever
780.63	Postvaccination fever
780.64	Chills (without fever)
780.65	Hypothermia not associated with low environmental temperature
780.66	Febrile nonhemolytic transfusion reaction
780.71	Chronic fatigue syndrome
780.72	Functional quadriplegia
780.79	Other malaise and fatigue
780.8	Generalized hyperhidrosis
780.93	Memory loss
780.94	Early satiety
780.96	Generalized pain
780.97	Altered mental status
780.99	Other general symptoms
781.0	Abnormal involuntary movements
781.3	Lack of coordination, ataxia
782.0	Disturbance of skin sensation
782.3	Localized edema
782.8	Changes in skin texture
782.9	Other symptoms involving skin and integumentary tissues
783.0	Anorexia
783.1	Abnormal weight gain
783.21	Abnormal loss of weight

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Code	Description
783.6	Polyphagia
784.1	Throat pain
784.42	Dysphonia
784.43	Hypernasality
784.44	Hyponasality
784.49	Other voice and resonance disorders
784.51	Dysarthria
784.59	Other speech disturbance
785.0	Tachycardia, unspecified
785.1	Palpitations
785.9	Other symptoms involving cardiovascular system
786.09	Other symptoms involving respiratory system
786.1	Stridor
787.20	Dysphagia, unspecified
787.21	Dysphagia, oral phase
787.22	Dysphagia, oropharyngeal phase
787.23	Dysphagia, pharyngeal phase
787.24	Dysphagia, pharyngo-esophageal phase
787.29	Other dysphagia
787.91-787.99	Other symptoms involving digestive system
789.51	Malignant Ascites
789.59	Other Ascites
793.99	Other nonspecific (abnormal) findings on radiological and other examination of body structure
794.5	Thyroid, abnormal scan or uptake
796.1	Other nonspecific abnormal findings, abnormal reflex
799.21	Nervousness
799.22	Irritability
799.23	Impulsiveness
799.24	Emotional lability
799.25	Demoralization and apathy
799.29	Other signs and symptoms involving emotional state
990	Effects of radiation, unspecified
V10.87	Personal history of malignant neoplasm of the thyroid
V10.88	Personal history of malignant neoplasm of other endocrine gland
V10.91	Personal history of malignant neuroendocrine tumor
V12.21	Personal history of gestational diabetes
V12.29	Personal history of other endocrine, metabolic, and immunity disorders
V58.69	Long term (current) use of other medications
V67.00-V67.9	Follow-up examination

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### **Indications**

Thyroid function tests are used to define hyper function, euthyroidism, or hypofunction of thyroid disease. Thyroid testing may be reasonable and necessary to:

- Distinguish between primary and secondary hypothyroidism
- Confirm or rule out primary hypothyroidism
- Monitor thyroid hormone levels (for example, patients with goiter, thyroid nodules, or thyroid cancer)
- Monitor drug therapy in patients with primary hypothyroidism
- Confirm or rule out primary hyperthyroidism
- Monitor therapy in patients with hyperthyroidism

Thyroid function testing may be medically necessary in patients with disease or neoplasm of the thyroid and other endocrine glands. Thyroid function testing may also be medically necessary in patients with metabolic disorders; malnutrition; hyperlipidemia; certain types of anemia; psychosis and non-psychotic personality disorders; unexplained depression; ophthalmologic disorders; various cardiac arrhythmias; disorders of menstruation; skin conditions; myalgias; and a wide array of signs and symptoms, including alterations in consciousness; malaise; hypothermia; symptoms of the nervous and musculoskeletal system; skin and integumentary system; nutrition and metabolism; cardiovascular; and gastrointestinal system.

It may be medically necessary to do follow-up thyroid testing in patients with a history of malignant neoplasm of the endocrine system and in patients on long-term thyroid drug therapy.

### **Limitations**

Testing may be covered up to two times a year in clinically stable patients; more frequent testing may be reasonable and necessary for patients whose thyroid therapy has been altered or in whom symptoms or signs of hyperthyroidism or hypothyroidism are noted.

### **ICD-9-CM Codes That Do Not Support Medical Necessity**

Any ICD-9-CM code not listed in either of the ICD-9-CM covered or non-covered sections.

### **Documentation Requirements**

When these tests are billed at a greater frequency than the norm (two per year), the ordering physician's documentation must support the medical necessity of this frequency.

### **Sources of Information**

AACE Clinical Practice Guidelines for the Diagnosis and Management of Thyroid Nodules, Endocrine Practice (1996) 2:1, pp. 78-84.

AACE Clinical Practice Guidelines for Evaluation and Treatment of Hyperthyroidism and Hypothyroidism, Endocrine Practice (1995) 1:1, pp. 54-62.

AACE Clinical Practice Guidelines for Management of Thyroid Carcinoma, Endocrine Practice (1997) 3:1, pp. 60-71.

Cooper DS. Treatment of thyrotoxicosis. In Braverman LE, Utiger RD, eds. Werner and Ingbar's The Thyroid: A Fundamental and Clinical Text. 6th ed. Philadelphia, Pa: JB Lippincott Co; 1991:887-916.

Endocrinology. DeGroot LJ, et. al. Eds. 3rd ed. Philadelphia, Pa: W.B.Saunders Co.; 1995.

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Glenn GC and the Laboratory Testing Strategy Task Force of the College of American Pathologists. Practice parameter on laboratory panel testing for screening and case finding in asymptomatic adults. *Arch Pathol LabMed.* 1996;120:929-43.

Larsen PR, Ingbar SH. The Thyroid Gland. In: Wilson JD, Foster DW, eds. *Williams Textbook of Endocrinology.* 9th ed. Philadelphia, Pa: WB Saunders Co; 1992:357-487. *The Merck Manual*, 16th Edition, pp. 1072-1081.

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