

## THYROID TESTING

**Policy Number: CMP - 011**

**Effective Date: January 1, 2018**

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### **INSTRUCTIONS FOR USE**

*This Medical Policy provides assistance in interpreting UnitedHealthcare benefit plans. When deciding coverage, the enrollee specific document must be referenced. The terms of an enrollee's document (e.g., Certificate of Coverage (COC) or Summary Plan Description (SPD)) may differ greatly. In the event of a conflict, the enrollee's specific benefit document supersedes this Medical Policy. All reviewers must first identify enrollee eligibility, any federal or state regulatory requirements and the plan benefit coverage prior to use of this Medical Policy. Other Policies and Coverage Determination Guidelines may apply. UnitedHealthcare reserves the right, in its sole discretion, to modify its Policies and Guidelines as necessary. This Medical Policy is provided for informational purposes. It does not constitute medical advice.*

*UnitedHealthcare may also use tools developed by third parties, such as the MCG™ Care Guidelines, to assist us in administering health benefits. The MCG™ Care Guidelines are intended to be used in connection with the independent professional medical judgment of a qualified health care provider and do not constitute the practice of medicine or medical advice.*

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### **BACKGROUND**

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Thyroid function studies are used to determine the presence or absence of hormonal abnormalities (primary or secondary) of the thyroid and pituitary glands. The thyroid gland, a small gland in the neck, is responsible for regulation of many metabolic processes. Additionally, the pituitary gland controls how well the thyroid works. The pituitary gland, a small gland at the base of the brain, produces thyroid-stimulating hormone (TSH), which in turn causes the thyroid gland to produce more thyroid hormones, as needed.

The thyroid, through making and releasing two hormones, regulates many essential functions of the body. 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. Undiagnosed thyroid problems can dramatically increase one's risk of obesity, heart disease, depression, anxiety, hair loss, sexual dysfunction, infertility and a host of other symptoms and health problems.

### **Hyperthyroidism and hypothyroidism**

Thyroid problems can arise from either an overactive thyroid, (which leads causes a condition known as hyperthyroidism) or and underactive thyroid, (which leads to hypothyroidism).

#### *Hyperthyroidism (Overactive Thyroid)*

Graves' disease is the most common cause of hyperthyroidism. In this condition, the immune system is overstimulating the thyroid. Hyperthyroidism is most common in women ages 20-40, however it can affect men as well. Common symptoms of hyperthyroidism are:

- Weakness and fatigue
- Shaky hands, jitteriness, increased nervousness
- Increase in rate of heartbeat or palpitations
- Weight loss
- More frequent and looser bowel movements
- Anxiety and irritability
- Eye irritation or problems
- Changes to normal menstrual behavior (shorter or lighter menstrual periods)
- Greater sensitivity to heat and increased perspiration
- Infertility
- Feeling hot

In addition to symptoms of hyperthyroidism, some patients with Graves' disease develop eye symptoms such as a stare, eye irritation, bulging of the eyes and, occasionally, double vision or loss of vision. Other symptoms that individuals with Graves' disease may experience include an enlarged thyroid gland (or goiter), difficulty breathing, or muscle weakness (especially in upper arms and thighs).

#### *Hypothyroidism (Underactive thyroid)*

Hashimoto's thyroiditis, an autoimmune condition, is the most common cause of hypothyroidism in the US and developed countries. Worldwide, iodine deficiency is the most common cause of thyroid disease as diets are deficient and iodine is not available through iodized salt and other sources. Symptoms of an underactive thyroid can include:

- Sluggishness and fatigue
- Depression
- Greater sensitivity to cold
- Unexplained weight gain
- Dry hair and skin
- Constipation

- Menstrual irregularities (i.e., heavy menstrual periods)
- Slow heart rate
- Erectile dysfunction (men)

In addition to the above symptoms, individual with Hashimoto's disease may also experience an enlarged thyroid gland (or goiter), difficulty swallowing, infertility, early graying of hair, or mental dullness. When thyroid hormone production falls to dangerously low levels, myxedema may occur. Individuals with myxedema face very serious reactions to infections, injuries, certain types of medications, and even exposure to cold. Any of these reactions could result in a loss of consciousness or myxedema coma. Along with loss of consciousness, hypothermia may also develop, allowing the body's temperature to drop to potentially fatal levels.

### **Symptoms and other associated conditions**

*Muscle and Joint Pains, Carpal Tunnel/Tendonitis Problems* - Undiagnosed thyroid problems may cause aches and pains in muscles and joints as well as weakness in the arms. There is also an association between Carpal Tunnel Syndrome (CTS) and hypothyroidism. CTS is a repetitive strain injury that manifests itself as pain, achiness, or numbness in the wrist, fingers, or forearm. CTS is due to swelling of membranes that compress a nerve in the forearm, and is more common in people with hypothyroidism.

*Neck Discomfort/Enlargement* - Thyroid disease can cause an enlargement of the thyroid. This enlargement, which may or may not be visible, can cause a feeling of swelling in the neck or discomfort with turtlenecks or neckties. A hoarse voice, difficulty speaking normally or vocal changes may also be a symptom of a thyroid enlargement. In severe cases, there may be a lump or nodule or enlarged lymph nodes in the neck. Additionally, symptoms such as difficulty swallowing or a choking feeling may be present. In some cases, the thyroid enlargement may cause a persistent cough or difficulty breathing.

*Hair and Skin Changes* - Thyroid problems can cause changes in the hair and skin. Hair loss is frequently associated with thyroid disease. The skin of a patient with hypothyroidism may become coarse, thick, dry, or scaly. In hyperthyroidism, the skin may become fragile and thin. Itchy skin may also be a symptom of thyroid disease.

*Bowel Problems* - As hypothyroidism slows down many of the body's system, including digestion and elimination, constipation can be a problem. Unfortunately, some patients can experience severe or chronic constipation. In contrast, those patients with hyperthyroidism may suffer from diarrhea or irritable bowel syndrome.

*Reproductive Problems* - Thyroid disease is associated with a spectrum of reproductive disorders ranging from abnormal sexual development through menstrual abnormalities to infertility. Heavy, painful, and more frequent periods are associated with hypothyroidism. In contrast, shorter, lighter or infrequent menstruation can be associated with hyperthyroidism. Infertility can also be associated with undiagnosed thyroid conditions. With thyroid disease, a female patient may have ovulatory dysfunction or anovulation. There has also been a link between hyperthyroidism and ovarian cancer due to the inflammation caused by the autoimmune hyperthyroidism.

*Fatigue* - Thyroid problems may also lead to fatigue and exhaustion. In addition, insomnia may be present in those with hyperthyroidism.

*Mental changes* – Thyroid disease is also associated with depression, anxiety, psychomotor slowing, mild cognitive impairment, panic disorder, and other mental changes. Hypothyroidism is most typically associated with depression, while hyperthyroidism is more commonly associated with anxiety or panic attacks.

*Cholesterol Issues* - High cholesterol, especially when it is not responsive to diet, exercise or cholesterol-lowering medication can be a sign of undiagnosed hypothyroidism. Unusually low cholesterol levels may be a sign of hyperthyroidism.

*Diabetes* – Both diabetes and thyroid disorders involve a dysfunction of the endocrine system. In general, diabetic patients have a higher prevalence of thyroid disorders compared with the normal population. Because of the link between diabetes and thyroid disease, the American Diabetes Association has recommended that people with diabetes be tested for thyroid disorders as thyroid disorders can have a major impact on glucose control.

*Anemia* – Many disease conditions are associated with thyroid diseases, but the one with the highest association is anemia. Thyroid hormones stimulate erythropoiesis (making of red blood cells) and in the absence of these hormones, an anemia may develop.

*Pregnancy*- Both hypothyroidism and hyperthyroidism present risks for pregnant women and the fetus. Women with thyroid disease are at a higher risk of having infants with birth defects, including abnormalities affecting the heart, kidney, or brain. Additionally, women with hyperthyroidism may develop high blood pressure and heart problems and if left untreated, this may increase the risk of miscarriage, premature birth, or low birth weight babies.

*Osteoporosis* - Excess thyroid hormone increases the rate of bone turnover, which may increase the overall rate of bone loss. This increase in bone loss can lead to a risk of developing osteoporosis.

## **Society Guidelines**

Screening for thyroid dysfunction:

- The American Thyroid Association recommends that adults be screened for thyroid dysfunction by measurement of the serum TSH concentration, beginning at age 35 years and every 5 years thereafter. The indication for screening is particularly compelling in women, but it may also be justified in men as a relatively cost-effective measure in the context of the periodic health examination.
- The American Congress of Obstetricians and Gynecologists does not recommend TSH measurement in women during the first trimester of pregnancy in the asymptomatic patient.
- The American College of Physicians recommends screening women older than age 50 years with 1 or more general symptoms that could be caused by thyroid disease.

- The Endocrine Society and American Medical Association state that it is reasonable to consider serum TSH measurement for women with a family history of thyroid disease, prior thyroid dysfunction, symptoms or physical findings suggestive of hypothyroidism or hyperthyroidism, an abnormal thyroid gland on examination, type 1 diabetes mellitus, or a personal history of an autoimmune disorder.

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## POLICY

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For the following CPT code(s) in Table 1, the patient should have a diagnosis (ICD-10-CM) code(s) listed in the attached files below.

**Table 1. HCPCS Codes (Alphanumeric, CPT® AMA)**

HCPCS 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-10 Diagnosis Codes (Proven)



CMP-011 Thyroid  
Testing ICD10\_v1.1

### Limitations

In general, 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. If more frequent testing is required, there must be documentation to support the medical necessity of this frequency.

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**POLICY HISTORY/REVISION HISTORY**

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<b>Date</b>	<b>Action/Description</b>
12/07/2017	Annual Policy Review Completed – Updated ICD10 codes as per CMS recommendations.
01/21/2017	Updated ICD10 codes as per CMS recommendations. Removed ICD9 code file.
12/03/2015	Annual Policy Review Completed – no changes.
10/01/2015	Removed ICD9 table. Embedded ICD9/ ICD10 PDF files.