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### WHAT IS THE THYROID GLAND?

The thyroid gland located in the neck produces thyroid hormones which help the body use energy, stay warm and keep the brain, heart, muscles, and other organs working normally.

## **1** SYMPTOMS

#### What is thyroiditis?

Thyroiditis includes a group of different disorders that all cause inflammation of the thyroid gland. As a result, there may be many different clinical presentations, from hypothyroidism to an enlarged thyroid (goiter), to symptoms similar to hyperthyroidism.

# **2** CAUSES

### What causes thyroiditis?

Thyroiditis results from an attack by the body's own immune system against the thyroid, causing inflammation and damage to the thyroid cells. Certain drugs or infection by a virus or bacteria may also cause thyroiditis.

### **3** DIAGNOSIS

#### What are the clinical symptoms of thyroiditis?

There are no symptoms unique to thyroiditis. If the thyroiditis causes slow thyroid cell damage, thyroid hormone levels in the blood may fall and patients experience the symptoms of hypothyroidism (see *Hypothyroidism brochure*). If the thyroiditis causes rapid thyroid cell damage, stored thyroid hormone comes out, and patients may experience the symptoms of hyperthyroidism, also called thyrotoxicosis (see *Hyperthyroidism brochure*).

#### What are the types and clinical course of thyroiditis?

Hashimoto's thyroiditis - Cause is autoimmune. Patients usually present with hypothyroidism, which is frequently permanent.

Subacute, painless and post-partum thyroiditis – These disorders usually follow a pattern of thyrotoxicosis followed by hypothyroidism. The thyrotoxic phase usually lasts for 1-3 months and is associated with symptoms of hyperthyroidism. Thyroidal pain in subacute thyroiditis follows the thyrotoxic phase. The hypothyroid phase typically occurs 1-3 months after the thyrotoxic phase and may last 9 –12 months, and may involve typical symptoms of hypothyroidism. Most patients (~95%) will have return of their normal thyroid function to normal within 12-18 months.

**Drug-induced and radiation thyroiditis** – Both thyrotoxicosis and hypothyroidism may be seen. The thyrotoxicosis is usually short-lived. Drug-induced hypothyroidism often resolves with stopping the drug, while the hypothyroidism related to radiation thyroiditis is usually permanent.

Acute/Infectious thyroiditis – Symptoms may include thyroidal pain, systemic illness, painless enlargement of the thyroid and hypothyroidism. The symptoms usually resolve once the infection resolves.

### **4** TREATMENT

### How is thyroiditis treated?

Treatment depends on the type of thyroiditis and the clinical presentation.

Thyrotoxicosis – Beta blockers may be helpful to decrease palpitations (fast heart rate) and tremors. Antithyroid medications (see *Hyperthyroid brochure*) are not effective to treat thyrotoxicosis due to thyroiditis.

Hypothyroidism – Thyroid hormone replacement is used for hypothyroidism due to Hashimoto's thyroiditis (see *Thyroid Hormone Therapy brochure*). If thyroid hormone therapy is started for patients with subacute, painless and post-partum thyroiditis, treatment should be continued for approximately 6-12 months and then tapered to see if thyroid hormone is required permanently.

Thyroidal pain – The pain associated with subacute thyroiditis can usually be managed with mild anti-inflammatory medications such as aspirin or ibuprofen. Occasionally, the pain can be severe and require steroid therapy with prednisone.

### FURTHER READING

Further details on this and other thyroid-related topics are available in the patient information section on the American Thyroid Association<sup>®</sup> website at *www.thyroid.org.* 



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