Hashimoto's Thyroiditis (Lymphocytic Thyroiditis)

WHAT IS THE THYROID GLAND?

The thyroid gland is a butterfly-shaped endocrine gland that is normally located in the lower front of the neck. The thyroid's job is to make thyroid hormones, which are secreted into the blood and then carried to every tissue in the body. Thyroid hormone helps the body use energy, stay warm and keep the brain, heart, muscles, and other organs working as they should.

WHAT IS HASHIMOTO'S THYROIDITIS?

The term "Thyroiditis" refers to "inflammation of the thyroid gland". There are many possible causes of thyroiditis (See *Thyroiditis* brochure). Hashimoto's thyroiditis, also known as chronic lymphocytic thyroiditis, is the most common cause of hypothyroidism in the United States. It is an autoimmune disorder in which antibodies directed against the thyroid gland lead to chronic inflammation. It is not known why some people make antibodies, although this condition tends to run in families. Over time, however, this results in impaired ability of the thyroid gland to produce thyroid hormones, leading to gradual decline in function and eventually an underactive thyroid (Hypothyroidism). Hashimoto's thyroiditis occurs most commonly in middle aged women, but can be seen at any age, and can also affect men, and children.

WHAT ARE THE SYMPTOMS OF HASHIMOTO'S THYROIDITIS?

There are no signs or symptoms that are unique to Hashimoto's thyroiditis.

Because the condition usually progresses very slowly over many years, people with Hashimoto's thyroiditis may not have any symptoms early on, even when the characteristic TPO (thyroid peroxidase) antibodies may be detected in blood tests. TPO is an enzyme that plays a role in the production of thyroid hormones. However, over time, thyroiditis causes slow and chronic cell damage leading to the development of a goiter (enlarged thyroid) with gradual thyroid failure, and most patients will eventually develop symptoms of hypothyroidism. (See *Hypothyroidism* brochure). Hypothyroid symptoms may include fatigue, weight gain, constipation, increased sensitivity to cold, dry skin, depression, muscle aches and reduced exercise tolerance, and irregular or heavy menses.

HOW IS THE DIAGNOSIS OF HASHIMOTO'S THYROIDITIS MADE?

The diagnosis of Hashimoto's thyroiditis is often made when patients present with symptoms of hypothyroidism, often accompanied by the finding of a goiter (an enlarged thyroid gland) on physical examination, and laboratory tests consistent with hypothyroidism, an elevated serum TSH with low thyroid hormone (Free thyroxine) levels. Antibodies against TPO, when measured, are usually elevated.

Occasionally, the disease may be diagnosed early on, especially in people with a strong family history of thyroid disease, during routine laboratory screening, even before the patient develops symptoms of hypothyroidism. In these cases, often isolated mild elevation of serum TSH is seen, with normal levels of thyroid hormones and positive TPO antibodies.

HOW IS HASHIMOTO THYROIDITIS TREATED?

Patients with elevated TPO antibodies but normal thyroid function tests (TSH and Free thyroxine) do not require treatment.

For those patients with overt hypothyroidism (elevated TSH and low thyroid hormone levels) treatment consists of thyroid hormone replacement (see *Thyroid Hormone Treatment* brochure). Synthetic levothyroxine taken orally at an appropriate dose, is inexpensive, very effective in restoring normal thyroid hormone levels and results in improvement of symptoms of hypothyroidism. Most patients with Hashimoto's thyroiditis will require lifelong treatment with levothyroxine. Finding the appropriate dose, particularly at the beginning may require testing with TSH every 6-8 weeks after any dose adjustment, until the correct dose is determined. After that, monitoring of TSH once a year is generally sufficient.

When levothyroxine is taken in the appropriate dose, it has no side effects. However, when an insufficient dose is taken, serum TSH remains elevated and patients may have persistent symptoms of hypothyroidism (See *Hypothyroidism* brochure). If the dose is excessive, serum TSH will become suppressed and patients may develop symptoms of hyperthyroidism (See *Hyperthyroidism* brochure).

FURTHER INFORMATION



Further details on this and other thyroid-related topics are available in the *patient thyroid information section* on the American Thyroid Association[®] website at *www.thyroid.org*. For information on thyroid patient support organizations, please visit the *Patient Support Links* section on the ATA website at *www.thyroid.org*