

Module 5, Lesson 6 Handout:

Hashimoto's Disease: Symptoms & Interventions

Hashimoto's disease is sometimes referred to as Hashimoto's thyroiditis or autoimmune thyroiditis, meaning inflammation of the thyroid gland. Hashimoto's is similar to hypothyroidism since they both deal with an underactive thyroid, however Hashimoto's is an autoimmune disease while hypothyroidism is a thyroid condition. We'll get more into the nitty gritty of autoimmune diseases in another module, but for now keep in mind that an autoimmune disease is when your immune system mistakenly attacks your body.

What Happens in Hashimoto's Disease?

In Hashimoto's disease, thyroid cells are mistakenly destroyed by immune processes that researchers are still trying to fully understand. What we do know for sure is that people with Hashimoto's disease start making antibodies that specifically target thyroid tissues, which affects the function of the thyroid and thyroid hormone production. Antibodies most often responsible for the decrease in thyroid hormone production are **anti-thyroid peroxidase (TPO)**, **antithyroglobulin (anti-Tg)** and **thyrotropin binding inhibitory immunoglobulins (TBII)**. These antibodies can be identified through a blood test. TPO works against the enzyme thyroid peroxidase, which is important for thyroid hormone production. Anti-Tg works against the protein thyroglobulin, which also plays an important role in thyroid hormone production. TBII blocks the TSH receptor and inhibits the actions of TSH.

Incidence, Symptoms & Diagnosing

Women are more likely to develop Hashimoto's than men, and it's the most common cause of hypothyroidism in the U.S. and similar countries where iodine intake is adequate and iodine deficiency is rare. The incidence of Hashimoto's disease increases with age.

Pay attention to the symptoms your clients may present with to determine whether or not they should be referred for a blood test to check for hypothyroidism or Hashimoto's. Symptoms of Hashimoto's disease can include:

- Dry skin
- Feeling unusually cold
- Exhaustion
- Thin, dry hair

- Constipation
- Difficulty losing weight
- Depression
- Joint or muscle pain
- Fertility problems
- Goiter
- Weight gain
- High cholesterol
- Menstrual changes
- Bloating or puffiness in the face

If your client is experiencing any of the above symptoms or expresses concern with their thyroid health, work with their endocrinologist and health care team to suggest interventions to manage the disease. Hypothyroidism is an early indicator of Hashimoto's disease, and it's important to address because Hashimoto's can increase your client's risk of developing other autoimmune disorders such as rheumatoid arthritis, type 2 diabetes, Addison disease (adrenal insufficiency and decreased cortisol), multiple sclerosis and pernicious anemia.

Disease Treatment & Management

As with hypothyroidism, the typical treatment for Hashimoto's disease is thyroid hormone replacement therapy. This means the synthetic thyroid hormone levothyroxine (such as Levo-T and Synthroid) will be used by your client daily to restore hormone levels back to normal. This medication may have side effects including increased appetite and insomnia, so work with these clients to come up with a strong lifestyle plan. Also note that levothyroxine has several nutrient interactions and absorption of the medication may be decreased by foods including soy, walnuts, fiber and calcium rich foods. Clients should avoid eating these foods within several hours of taking levothyroxine, and stick to consistent medication and meal timing to ensure the most effective use of the medication.

As for dietary recommendations, research is looking at the ability of an autoimmune or anti-inflammatory diet to manage symptoms and decrease severity of the disease, and more research is still needed in this area. Studies have found a link between selenium and vitamin D and those with Hashimoto's disease. Selenium rich foods such as Brazil nuts, poultry and some fish and dairy have been beneficial in the treatment of Hashimoto's. Studies found that most Hashimoto's patients are deficient in vitamin D, so promote the intake of vitamin D rich foods such as fish, eggs and fortified milk and orange juice when making recommendations for your clients with this disease. Goitrogens, which are discussed in more detail in another handout, should be limited and avoided in the diet.

These substances are found in cruciferous vegetables and soy, and interfere with thyroid hormone production.

When working with your clients who have Hashimoto's disease, you are also working with their endocrinologist and the rest of their health care team to manage symptoms and provide treatments. The diagnosis of an autoimmune disease can be scary and confusing for some clients, so work with them to build habits and modifications that will help them better manage the disease.