# CLINICAL THYROIDOLOGY FOR THE PUBLIC

A publication of the American Thyroid Association

# AMERICAN THYROID ASSOCIATION FOUNDED 1923 www.thyroid.org

# **HYPOTHYROIDISM**

# The presence of hypothyroid symptoms is more reliable in diagnosing hypothyroidism in men than in women

### **BACKGROUND**

Hypothyroidism is a very common condition and affects more women than men. The most common cause of hypothyroidism is Hashimotos thyroiditis, an autoimmune condition. The symptoms of hypothyroidism are many and can have a significant impact in quality of life. Most symptoms are non-specific and the is no one diagnostic symptom for hypothyroidism. Many studies show that a proportion of hypothyroid patients who take thyroid hormone and are considered to have normal thyroid hormone levels still continue to report symptoms that are consistent with hypothyroidism. As a result of this, many patients request to be treated with nonstandard therapies, with the hope of finding complete relief of such symptoms.

No study has been done to investigate whether symptoms of hypothyroidism may be different in men and women when they are first diagnosed, or whether these symptoms present at the same level in both sexes. This study was done to understand the differences in type and intensity of symptoms that are present in men and women when they are just diagnosed with Hashimoto's thyroiditis.

## THE FULL ARTICLE TITLE

Carlé A et al. Gender differences in symptoms of hypothyroidism: a population-based Dan Thyr study. Clin Endocrinol (Oxf). April 2, 2015 [Epub ahead of print].

### **SUMMARY OF THE STUDY**

This study was done in Denmark and included patients who had just been diagnosed with hypothyroidism while they were participating in a DanThyr study which was designed to study iodine intake and thyroid disease in that country. Once a patient was identified as having hypothyroidism through their blood work with an elevated TSH and a low free thyroxine level, their medical records were reviewed to confirm the new diagnosis of Hashimoto's thyroiditis. A total of 147 patients participated in this study. The investigators also recruited volunteers that were very similar in age, area of origin and gender, but that had normal thyroid hormone levels, so that they could be compared to the patients in the study.

All participants (patients and normal volunteers) completed a questionnaire regarding hypothyroid symptoms present in the last 12 months. These survey also included questions about neck symptoms such as trouble swallowing due to an enlarged thyroid (goiter). In total, 140 patients and 560 normal volunteers were included and 16% of them were men.

In the group of the hypothyroid patients, 94.9% of women and 91.3% of men reported at least one symptom. The most common symptoms were fatigue (80.6%), dry skin (62.1%) and difficulty breathing (51.4%). In the normal volunteers, 73.7% of women and 51.1% of men also reported at least one hypothyroid symptom. In this group, the following symptoms were much more significantly present in women than men: fatigue, difficulty breathing, dry skin, mood changes, palpitations, constipation and the sensation of "something in the throat".

When the data from all participants was analyzed together (males and females, patients and controls), it was seen that the presence of symptoms was indicative of hypothyroidism. However, the data also showed that men with two to three hypothyroid symptoms were likely to have hypothyroidism, but women reporting two to three symptoms were likely to have normal thyroid levels.

# WHAT ARE THE IMPLICATIONS OF THIS STUDY?

In this study, the presence of hypothyroid symptoms did not differ significantly between men and women with hypothyroidism. However, it was also shown that normal women were significantly more likely than normal men to report hypothyroid symptoms. Therefore, the presence or absence of symptoms is more reliable in diagnosing hypothyroidism in men than in women. Another implication of this study is that since so many patients who do not have hypothyroidism report symptoms consistent with such, complaints of persistent symptoms even after the treatment of hypothyroidism would be very common especially in female patients.

— Jessie Block-Galarza, MD.

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# **HYPOTHYROIDISM**, continued

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Hypothyroidism: <a href="http://www.thyroid.org/">http://www.thyroid.org/</a>

what-is-hypothyroidism

Thyroid Hormone Treatment: <a href="http://www.thyroid.org/">http://www.thyroid.org/</a>

thyroid-hormone-treatment

Thyroid Function Tests: <a href="http://www.thyroid.org/">http://www.thyroid.org/</a>

blood-test-for-thyroid

### **ABBREVIATIONS & DEFINITIONS**

Hypothyroidism: a condition where the thyroid gland is underactive and doesn't produce enough thyroid hormone. Treatment requires taking thyroid hormone pills.

Autoimmune thyroid disease: a group of disorders that are caused by antibodies that get confused and attack the thyroid. These antibodies can either turn on the thyroid (Graves' disease, hyperthyroidism) or turn it off (Hashimoto's thyroiditis, hypothyroidism).

TSH: thyroid stimulating hormone — produced by the pituitary gland that regulates thyroid function; also the best screening test to determine if the thyroid is functioning

Thyroxine  $(T_4)$ : the major hormone produced by the thyroid gland.  $T_4$  gets converted to the active hormone  $T_3$  in various tissues in the body.

