



## HYPOTHYROIDISM

### Should patient age and gender influence screening for autoimmune hypothyroidism?

#### BACKGROUND

Hypothyroidism is most often caused by an autoimmune process where the body makes antibodies that attack and destroy the thyroid. The thyroid gland then is unable to make enough thyroid hormone and becomes underactive. Patients with hypothyroidism usually complain of symptoms like tiredness, dry skin, constipation, hair loss, moodiness and weight gain. In contrast, patients with an overactive thyroid (hyperthyroidism) frequently note symptoms like feeling jumpy, jittery, anxious, heart racing, difficulty sleeping and weight loss. For a very long time, physicians had noticed that the symptoms of thyroid disease may differ in elderly, especially in patients with hyperthyroidism. Sometimes older patients with hyperthyroidism have more symptoms that are associated with hypothyroidism, a condition called “apathetic hyperthyroidism.” The association of age with symptoms of hypothyroidism is less studied, but it is a very important subject. Hypothyroidism is diagnosed more frequently in older age. Generally physicians rely on patient’s symptoms to choose tests necessary to make a diagnosis, it is important to identify how symptoms of elderly with hypothyroidism differ from younger patients. The purpose of this present paper is to evaluate the symptoms of hypothyroidism in different ages and compare them in younger and older groups.

#### THE FULL ARTICLE TITLE

Carlé A et al. Hypothyroid symptoms fail to predict thyroid insufficiency in old people: a population-based case-control study. *Am J Med.* July 6, 2016

#### SUMMARY OF THE STUDY

The study was done in Denmark and the subjects were selected from an existing Danish project about iodine intake and thyroid disease (Investigation of Iodine Intake and Thyroid Diseases (DanThyr) project). This project consisted of 538,734 participants, from whom 578 were newly diagnosed patients with autoimmune hypothyroidism. A total of 247 patients were invited to participate in the current study and 147 patients agreed to do so. All study subjects in DanThyr project had to fill out questionnaires periodically which asked about 13 symptoms (stuck sensation in the neck, difficulty swallowing, neck pain, wheezing, shortness of breath,

palpitations, constipation, hair loss, sensitive and dry skin, restlessness, mood liability, dizziness and tiredness). [Click here to link to the questionnaire.](#)

For every patient with hypothyroidism, 4 individuals with normal thyroid function were chosen to serve as control group. The symptoms that were recorded by participants in the questionnaire were compared between younger (younger than 50) and older (older than 60) patients as well as between the individuals with hypothyroidism and healthy controls.

The study showed that all the above 13 symptoms were seen more frequently in younger hypothyroid patients as compared to individuals without thyroid problems. However, only 3 symptoms (tiredness, shortness of breath and wheezing) were more common in older patients with hypothyroidism as compared to individuals without thyroid problems. Thus, with advancing age, the number of symptoms at the time of diagnosis of hypothyroidism was decreased. When compared between age groups and gender, symptoms were found to be an excellent tool for predicting hypothyroidism in young men, a good test for younger women, a fair test in older men and a poor test in older women.

#### WHAT ARE THE IMPLICATIONS OF THIS STUDY?

Symptoms of hypothyroidism may be seen with less frequency in elderly patients, especially elderly women. Physicians should not rely only on symptoms to order thyroid tests in elderly population and should have a lower threshold to suspect hypothyroidism. The symptoms classically associated with hypothyroidism are likely to be most useful in diagnosing younger men and least useful in older women.

— Shirin Haddady, MD

#### ATA THYROID BROCHURE LINKS

Hyperthyroidism (Overactive): <http://www.thyroid.org/hyperthyroidism/>

Hypothyroidism (Underactive): <http://www.thyroid.org/hypothyroidism/>



**HYPOTHYROIDISM**, continued

**ABBREVIATIONS & DEFINITIONS**

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

**Hyperthyroidism:** a condition where the thyroid gland is overactive and produces too much thyroid hormone. Hyperthyroidism may be treated with antithyroid meds (Methimazole, Propylthiouracil), radioactive iodine or surgery.

**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).

**BEING TREATED FOR HYPOTHYROIDISM?**

**ATA INVITES YOUR FEEDBACK ON THIS SURVEY:**

[www.surveymonkey.com/r/hypothyroidpatientsurvey](http://www.surveymonkey.com/r/hypothyroidpatientsurvey)



American Thyroid Association (ATA) encourages patients with hypothyroidism to participate, healthcare professionals to share with patients and everyone to disseminate broadly this survey intended to enhance understanding and treatment of hypothyroidism. Survey results will be discussed at the **ATA Spring Satellite Symposium: Hypothyroidism – Where are We Now?** on Friday, March 31, 2017 in Orlando, Florida by panel of thyroid experts, patients and professionals. Your responses are anonymous and should only take a few minutes to complete.

For more information regarding the ATA Spring Satellite Symposium, visit the ATA website at [www.thyroid.org](http://www.thyroid.org) or <http://www.thyroid.org/2017-hypo-symposium/>.