

# Thyroid inflammation linked to anxiety disorders

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Patients with autoimmune inflammation of their thyroid may be at greater risk of developing anxiety, according to a study being presented at e-ECE 2020. The study found that people with anxiety may also have inflammation in their thyroid gland that can be reduced by taking the non-steroidal anti-inflammatory, ibuprofen. These findings suggest that thyroid function may play an important role in the development of anxiety disorders and that thyroid inflammation should be investigated as an underlying factor in psychiatric disorders, such as anxiety.

At present, up to 35% of the young population (25-60 years) in developed countries have an [anxiety](#) disorder. Anxiety can have a severe impact of people's quality of life and ability to work and socialize, and anti-anxiety medication does not always have a lasting effect. Current examinations for [anxiety disorders](#) usually focus on dysfunction of the nervous system and do not take into account the role of the endocrine system.

The thyroid [gland](#) produces the hormones thyroxine (T4) and triiodothyronine (T3) that are essential for regulating heart, muscle and digestive function, brain development and bone maintenance. Autoimmune [inflammation](#) in the thyroid occurs when our bodies wrongly produce antibodies that attack the gland and causes damage. Recent studies indicate that anxiety disorders can be associated with the dysfunction of the thyroid gland. Therefore, it is important to understand how this may contribute to anxiety, so that patients can be treated more effectively.

Dr. Juliya Onofriichuk from Kyiv City Clinical Hospital investigated [thyroid function](#) in 29 men (average age 33.9) and 27 women (average age 31.7) with diagnosed anxiety, who were experiencing panic attacks. Ultrasounds of their thyroid glands assessed thyroid function and levels of thyroid hormones were measured. The patients with anxiety showed signs of inflammation of their thyroid glands but their function was not affected, with thyroid hormone levels all within the normal range, although slightly elevated. They also tested positive for antibodies directed against the thyroid. Treatment for 14 days with ibuprofen and thyroxine reduced thyroid inflammation, normalized thyroid hormone levels and reduced their anxiety scores.

"These findings indicate that the endocrine system may play an important role in anxiety. Doctors should also consider the [thyroid gland](#) and the rest of the endocrine system, as well as the nervous system, when examining patients with anxiety," Dr. Onofriichuk explains.

This knowledge could help patients with anxiety receive more effective treatment that improves thyroid function and could have a long-term positive effect on their mental health. However, sex and adrenal gland hormones were not taken in to account in this study, and these can also have a serious effect on anxiety.

Dr. Onofriichuk now plans to conduct further research that examines the levels of thyroid, sex and adrenal hormones (cortisol, progesterone, prolactin, oestrogen and testosterone) in patients with dysfunctional [thyroid](#) glands and anxiety disorders. This research aims to help understand more clearly the role of the endocrine system in the development of anxiety and could lead to better management of anxiety [disorders](#).

**More information:** Abstract 2912: Anxiety Disorders in Patients with Autoimmune Thyroiditis

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