

**HYPERTHYROIDISM AND HYPOTHYROIDISM****Hyperthyroidism and hypothyroidism are uncommon causes of anemia****BACKGROUND**

Abnormal thyroid hormone levels, such as hyperthyroidism and hypothyroidism, can be potential causes of anemia (low blood count). All three of these are common medical problems. They also all can produce symptoms of fatigue. This study was done to see if there is a relationship between abnormal thyroid hormone levels and anemia using a large population of adults in the United Kingdom.

**THE FULL ARTICLE TITLE**

M'Rabet-Bensalah K et al Thyroid dysfunction and anemia in a large population-based study. *Clin Endocrinol (Oxf)*. 2015 Dec 10. doi: 10.1111/cen.12994. [Epub ahead of print]

**SUMMARY OF THE STUDY**

This was a study of nearly 9,000 adults in the United Kingdom who had blood tests for hyperthyroidism, hypothyroidism, and anemia. Approximately 10% of the group had either hyperthyroidism or hypothyroidism, and nearly 6% of the group had anemia. Some common causes of anemia were also tested for, and 121 individuals in the group were identified as having either iron deficiency, inflammation, or chronic kidney disease that caused their anemia. Those who had hyperthyroidism more frequently

also had anemia, compared to those who had normal thyroid hormone levels. The authors concluded that in adults with anemia that is not easily explainable, abnormal thyroid hormone levels are found only 5% of the time. Thus, testing for hyperthyroidism or hypothyroidism in adults with anemia may not be particularly useful.

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

This study suggests that abnormal thyroid hormone levels is a rather infrequent finding among adults with anemia. However, the authors did not study whether medications or other diseases that can affect thyroid hormone levels might have been present in the subjects. Future research that studies if having risk factors for abnormal thyroid hormone levels are present in anemic individuals can help us understand how these two common disorders might be related.

— Angela M. Leung, MD, MSc

**ATA THYROID BROCHURE LINKS**

Hyperthyroidism: <http://www.thyroid.org/hyperthyroidism/>

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**ABBREVIATIONS & DEFINITIONS**

**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.

**Hypothyroidism:** a condition where the thyroid gland is underactive and doesn't produce enough

thyroid hormone. Treatment requires taking thyroid hormone pills.

**Anemia:** low blood count, specifically low levels of red blood cells which carry oxygen around to all of the cells in the body. Fatigue is a common symptom of anemia.