



## HYPERTHYROIDISM

### Hyperthyroidism increases the risk of death compared to the population without hyperthyroidism

#### BACKGROUND

Hyperthyroidism is caused by the thyroid gland becoming overactive and producing high levels of thyroid hormone. Common causes of hyperthyroidism are Graves' disease and toxic nodular goiter. Hyperthyroidism causes many disabling symptoms including muscle weakness, heart palpitations and irregular rhythms and shortness of breath. In severe cases hyperthyroidism can cause heart failure and stroke. Some studies suggest that patients with hyperthyroidism have an increased risk of death as compared to individuals without hyperthyroidism. This study reviewed the major studies on mortality in hyperthyroidism to determine if an increased death rate was present in hyperthyroid patients.

#### THE FULL ARTICLE TITLE

Brandt F et al Is the association between overt hyperthyroidism and mortality causal? Critical review and meta-analysis. *Eur J Endocrinology*. July 1, 2011.

#### SUMMARY OF THE STUDY

This study is a review of seven published articles in medical journals. Taken together, over 31,000 hyperthyroid patients have been studied and compared to individuals who had never been hyperthyroid. The results were that the risk of death in hyperthyroid patients is 20% greater than individuals without hyperthyroidism. Unfortunately, specific patient risk factors other than hyperthyroidism, choices for treatment of the hyperthyroidism and duration of hyperthyroidism could not be proven to be associated with this increased death rate. Furthermore, it could not be determined if the risk of death was only while the patient was hyperthyroid or if it changed once the hyperthyroidism was corrected.

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

This study suggests that patients with hyperthyroidism are at an increased risk of death. Future studies are needed to determine if this increased mortality is due to hyperthyroidism itself or due to other more common factors such as heart disease and smoking. In any event, physicians need to work closely together with patients to diagnose hyperthyroidism early and to treat the hyperthyroidism as quickly and safely as possible.

— Jerrold Stock, MD

#### ATA THYROID BROCHURE LINKS

Hyperthyroidism: <http://thyroid.org/patients/patient-brochures/hyperthyroidism.html>

Graves' disease: <http://thyroid.org/patients/patient-brochures/graves.html>

#### 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.

**Graves' disease:** the most common cause of hyperthyroidism in the United States. It is caused by antibodies that attack the thyroid and turn it on.