

Hyperthyroidism linked to increased risk of hospitalization for heart and blood-vessel disease

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An overactive thyroid gland, or hyperthyroidism, may increase the risk of hospitalization for heart and blood-vessel disease even after surgery to remove the gland, according to a new study. The results will be presented Saturday at The Endocrine Society's 94th Annual Meeting in Houston.

"Overactive [thyroid gland](#) has long-lasting effects on the patient's heart and vessels," said study principal investigator Saara Metso, M.D., Ph.D. assistant chief of endocrinology in the Department of [Internal Medicine](#), Division of Endocrinology, at Tampere University [Hospital](#) in Tampere, Finland. "Therefore, it is important to monitor the patient's heartbeat and blood pressure even years after the overactive thyroid gland has been cured."

The thyroid gland, located in the front of the neck, produces thyroid hormone, which helps regulate the process of turning food into energy. When the gland is overactive and produces excessive hormone, many bodily processes speed up. Symptoms include unexplained weight loss, [rapid heart rate](#), increased appetite, profuse sweating, and feelings of anxiety.

Diagnosis of an overactive thyroid gland usually involves a simple blood test, and effective treatments are available. These include radioactive iodine, which destroys part of the thyroid gland; antithyroid medication to reduce thyroid-hormone synthesis; and surgery, or a thyroidectomy, to

remove it.

Recently, however, questions were raised about the long-term health effects of treatment after some studies found that patients who had received radioactive iodine treatment or antithyroid medication had an [increased risk](#) of hospitalization for heart and blood-vessel disease. This risk persisted long after therapy ended, but it was unclear whether it was associated with the treatment itself or the prior overactive thyroid.

In findings implicating the disease rather than the treatment, the current study showed that patients who had undergone surgical thyroid removal also were at greater risk of being hospitalized for heart and blood-vessel disease. Overall, their risk was 17 percent greater compared to those without a history of overactive thyroid, and the increased risk persisted for as long as two decades after surgery.

"Although overactive thyroid gland is usually easy to diagnose and treat, it may be injurious to the patient's heart and vessels," Metso said. "It is probably the disease rather than the treatment that affects the patient's [heart](#) and vessels permanently."

Participants included 4,334 patients diagnosed with overactive thyroid who underwent [thyroidectomy](#) in Finland between 1986 and 2007, and 12,991 age- and gender-matched controls. They were 86 percent female, their average age was 46 years, and all were white. Average follow-up was 10.5 years.

Investigators obtained hospitalization information from Finland's national Hospital Discharge Registry for the study. They received funding from Research Funding of the Pirkanmaa Hospital District, Finland.

[Hyperthyroidism](#) affects approximately 1 percent of the U.S. population.

The most common cause is an autoimmune disorder called Grave's disease.

Provided by The Endocrine Society

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