

THYROID

Thyroid status not linked to risk of CHD

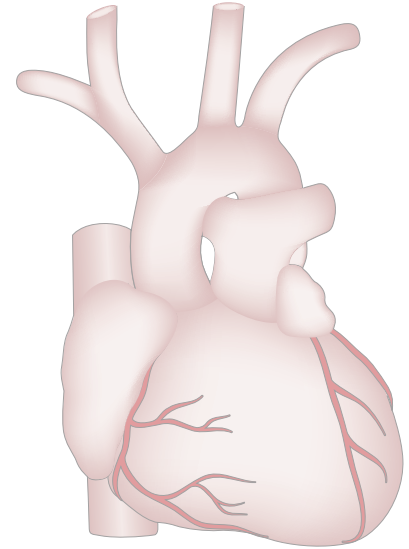
Thyroid abnormalities, although associated with an altered cardiovascular risk profile, do not seem to increase the risk of coronary heart disease (CHD). Matthijs Boekholdt, a researcher for the European Prospective Investigation of Cancer (EPIC) says "...we did not observe a statistically significant association between subclinical thyroid abnormalities and risk of CHD or all-cause mortality."

Thyroid status has been found to affect various features of the cardiovascular risk profile, such as blood pressure and lipid levels; however, Boekholdt notes that, according to existing data, "it is still unclear whether thyroid status affects the risk of CHD and all-cause mortality." Previous studies that aimed to investigate the link between CHD and thyroid dysfunction have produced conflicting results. Cardiovascular risk factors have been studied in the EPIC-Norfolk cohort, a prospective population study of 25,633 men and women aged 45–79 years living in Norfolk, UK. This cohort is part of the collaborative EPIC study designed to investigate the relationships between diet, nutritional status, lifestyle and environmental factors and the incidence of cancer and other chronic diseases. The association of cardiovascular risk factors with thyroid status has not received

detailed scrutiny in this population. Thus, the investigators sought to explore the relationship between thyroid status, cardiovascular risk factors and risk of CHD and mortality in the Norfolk cohort of the EPIC study.

Data were assessed from 11,554 individuals from the EPIC-Norfolk cohort; cardiovascular risk factors were recorded and concentrations of TSH and free T₄ were measured on enrollment. The occurrence of cardiovascular events was monitored during follow-up (mean 10.6 years).

Boekholdt and colleagues found that thyroid abnormalities—which were common, especially in women—were associated with an altered cardiovascular risk profile. TSH concentration, even within the normal range, correlated with elevated blood pressure and lipid levels, although the extent of this association differed between men and women. LDL cholesterol and systolic blood pressure were higher in women with subclinical and overt hypothyroidism than in their counterparts with a normal thyroid status. Despite the association between thyroid status and cardiovascular risk factors, people with thyroid abnormalities did not have a notably increased risk of CHD or all-cause mortality.



"The associations between thyroid hormones within the normal range and several cardiovascular risk factors may be influenced by sex and age," Boekholdt suggests. "However, we cannot rule out the possibility that limited statistical power may have prevented us from observing a moderately increased risk of CHD," he adds.

Lisa Richards

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