# Lifestyle may counter genetic risk for thyroid cancer

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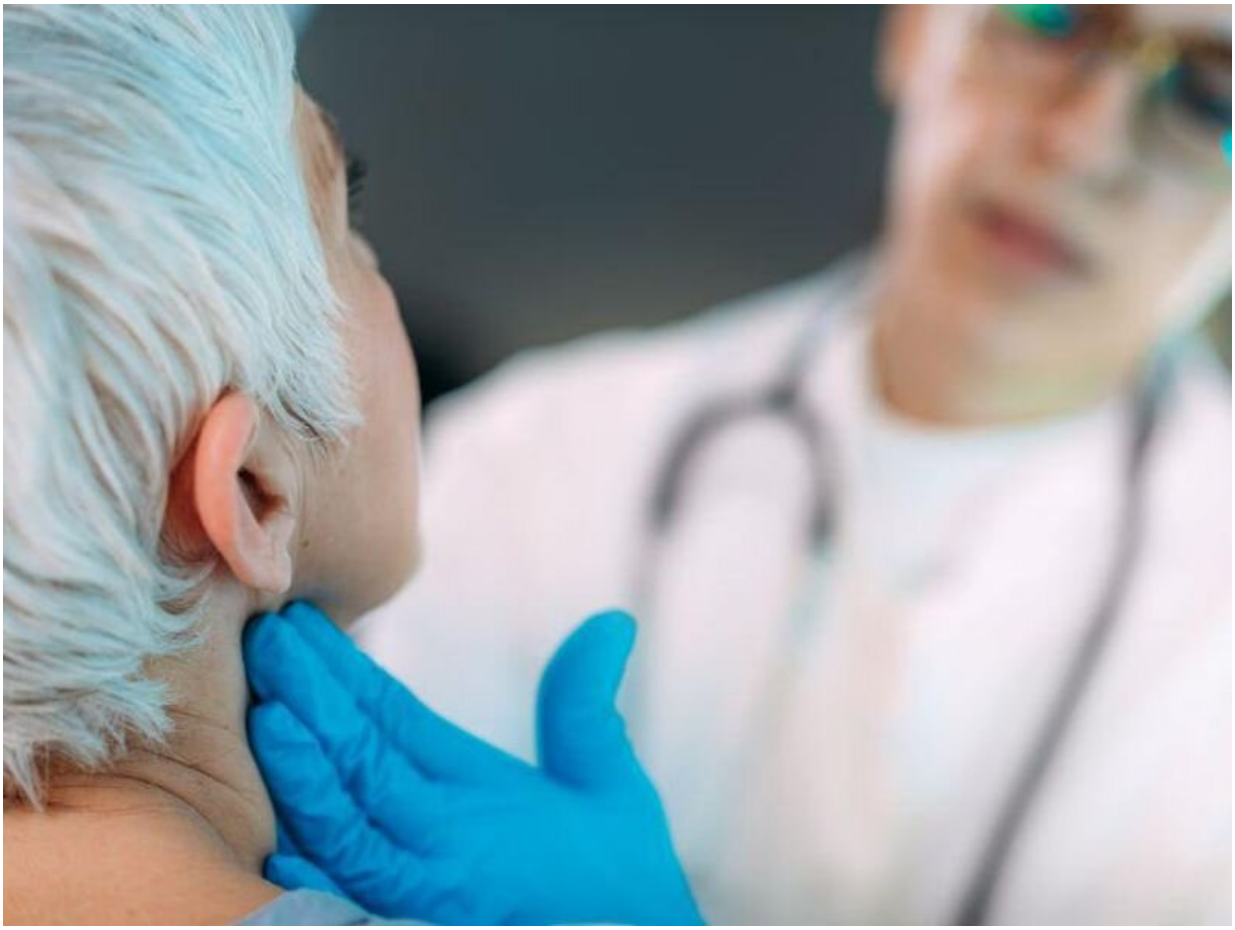

Genetic and lifestyle factors are independently associated with incident

thyroid cancer, according to a study published online Dec. 12 in *JAMA Network Open*.

Xiuming Feng, from Guangxi Medical University in Nanning, China, and colleagues assessed whether adherence to a healthy lifestyle modifies the association between genetic variants and thyroid cancer. The analysis included 264,956 participants (ages 40 to 69 years) identified from the U.K. Biobank.

The researchers found that during a median follow-up of 11.1 years, there were 423 incident thyroid cancers identified. There was a significant association between higher polygenic risk scores (PRS) and thyroid cancer (hazard ratio, 2.25), as well as a significant association between an unfavorable lifestyle and a higher risk for thyroid cancer (hazard ratio, 1.93). Unfavorable lifestyle was associated with thyroid cancer in the group with higher genetic risk (favorable versus unfavorable hazard ratio, 0.52). The highest risk for thyroid cancer was seen among participants with both a high PRS and unfavorable lifestyle (hazard ratio, 4.89).

"The findings of this study suggest that adherence to a healthier lifestyle could attenuate the deleterious role of genetic factors on the risk of thyroid cancer, especially in individuals at a high genetic risk," the authors write. "Hence, lifestyle interventions may be beneficial for preventing thyroid cancer, especially in individuals with a high genetic predisposition."

**More information:** Abstract/Full Text