



THYROID CANCER

The relationship between obesity and risk of papillary thyroid cancer

BACKGROUND

In recent years, there has been a rise in the number of people being diagnosed with thyroid cancer in the United States. Based on current trends, experts predict that papillary thyroid cancer will become the third most common cancer in American women by the year 2019. Recent estimates suggest that more than one-third of American adults are obese. Furthermore, obesity is associated with increased risk of a number of cancers and has been reported to contribute to the cause of some cancers. The aim of this study was to examine the relationship between obesity and risk of being diagnosed with papillary thyroid cancer.

THE FULL ARTICLE TITLE

Xu L et al Obesity and the risk of papillary thyroid cancer: a pooled analysis of three case-control studies. *Thyroid*. February 20, 2014 [Epub ahead of print].

SUMMARY OF THE STUDY

The authors combined the data from three separate studies which collected data on a total of 1917 thyroid cancer patients and 2127 cancer-free individuals (controls). The three studies were conducted in the United States, Italy and Germany. Using data on recorded height and weight of study participants, the authors estimated the degree to which individuals were overweight or obese, by calculating body mass index (BMI), percentage of body fat, and body surface area (BSA). The authors combined data

from all three studies to estimate the relationship between these values and the estimated risk of papillary thyroid cancer. The authors reported that being overweight (BMI 25-29.9 kg/m²) or obese (BMI ≥30 kg/m²) was associated with a significantly higher risk of papillary thyroid cancer compared to being underweight or normal weight individuals (BMI <25 kg/m²). Similar results were observed for analyses using body fat percentage measures (ie. an increased risk of papillary thyroid cancer with higher body fat percentage). Greater BSA was also significantly positively associated with increased risk of papillary thyroid cancer, but there were some differences in estimates across the different study sites.

WHAT ARE THE IMPLICATIONS OF THIS STUDY?

The authors of this study concluded that increasing body mass and body fat percentage are significantly related to increased risk of papillary thyroid cancer. More studies are needed to determine the exact cause of this relationship and whether losing weight changes this increased risk. In any event, it is important for all individuals to be aware of the health benefits of maintaining a healthy weight and preventing obesity.

— Anna Sawka, MD

ATA THYROID BROCHURE LINKS

Thyroid cancer: <http://www.thyroid.org/cancer-of-the-thyroid-gland>

ABBREVIATIONS & DEFINITIONS

Papillary thyroid cancer: the most common type of thyroid cancer.

Body-mass index (BMI): a standardized measure of obesity calculated by dividing the weight in kilograms by the square of the height. A normal BMI is 18.5-24.9, overweight is 25-30 and obese is >30.

Body surface area (BSA): a measurement or calculated estimate of the total surface area of the human body for an individual.