



## THYROID CANCER

### Is obesity directly involved in causing thyroid cancer?

#### BACKGROUND

Thyroid cancer is the fastest rising cancer in women. Obesity is increasing in the general population in both women and men. Obesity is considered to be a risk factor in several cancers, including breast cancer. There are several studies that have examined the risk of obesity on several different types of cancer. This study looked at these studies to examine the risk of obesity on thyroid cancer.

#### THE FULL ARTICLE TITLE:

Kitahara CM et al Obesity and thyroid cancer risk among U.S. men and women: a pooled analysis of five prospective studies. *Cancer Epidemiol Biomarkers Prev* 2011;20:464-72. Epub January 25, 2011.

#### SUMMARY OF THE STUDY

This study looked at the connection between BMI and thyroid cancer using the data from five prospective U.S. National Cancer Institute studies that were performed over various periods between 1979 and 2009 (mean follow-up, 10 years). Baseline questionnaires from approximately 414,000 women and 435,000 men provided information on demographics, lifestyle and medical history. Cancer information was obtained from self-reports (three studies), cancer registry linkage (four), death certificates (three) and/or the National Death Index (four). The type of thyroid cancer was established from clinical and pathology record, and cancer registries. The type of thyroid cancer was known in 1024 patient: 80%

were papillary, 15% follicular, 3% medullary and 2% anaplastic. The mean age at study entry was 58 years and 20% of participants were obese.

This study suggested that thyroid cancer was related to BMI. Overweight patients (BMI 25.0 to 29.9) had a 20% increased risk for developing thyroid cancer while obese patients (BMI>30) had a >50% risk of developing cancer as compared to individuals with a normal BMI. There was no significant difference between types of thyroid cancer. This increased risk appeared to be similar in men and women.

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

This interesting study suggests that obesity is a significant independent risk factor for thyroid cancer in both men and women. At this point there is no evidence that screening obese patients for thyroid cancer is indicated. However, this study should prompt physicians to make a careful thyroid exam a priority on their overweight and obese patients.

— Alan P. Farwell, MD

#### ATA THYROID BROCHURE LINKS

Thyroid cancer: [http://thyroid.org/patients/patient\\_brochures/cancer\\_of\\_thyroid.html](http://thyroid.org/patients/patient_brochures/cancer_of_thyroid.html)

Thyroid and Weight: [http://thyroid.org/patients/patient\\_brochures/weight.html](http://thyroid.org/patients/patient_brochures/weight.html)

#### ABBREVIATIONS & DEFINITIONS

**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.

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

**Follicular thyroid cancer:** the second most common type of thyroid cancer.

**Anaplastic thyroid cancer:** a very rare but very aggressive type of thyroid cancer. In contrast to all other types of thyroid cancer, most patients with anaplastic thyroid cancer die of their cancer and do so within a few years.

**Medullary thyroid cancer:** a relatively rare type of thyroid cancer that often runs in families. Medullary cancer arises from the C-cells in the thyroid.