



## THYROID CANCER

# What Factors Contribute to Worse Quality of Life in Thyroid Cancer Survivors?

### BACKGROUND

In recent decades, there has been a significant increase in the number of patients diagnosed with thyroid cancer. It is estimated that at this time there are more than 760,000 thyroid cancer survivors living in the United States. Although the death rate is much lower than other cancers, recent studies have shown that the self-reported quality of life in these survivors is the same or worse than that reported in cancers with worse prognoses.

Cancer survivors may experience changes in their physical or emotional state as a consequence of the diagnosis, treatment and monitoring of the cancer. These changes can affect the individual in the short term or the long term. Examples of these changes include the presence of a scar, need for life-long thyroid hormone treatment, dry mouth, and the need to routinely evaluate for the presence of cancer recurrences or spread to other parts of the body.

More research on thyroid cancer survivors is necessary, in particular to evaluate the factors and complications of treatment that are more likely to impair quality of life. This study obtained and analyzed patient-reported data to understand the illness from the patient's perspective, so that effective interventions can be developed aimed to improve health related quality of life.

### THE FULL ARTICLE TITLE

Goswami S et al 2019. Clinical factors associated with worse quality-of-life scores in United States thyroid cancer survivors 2019 Surgery. Epub 2019 Mar 18. pii: S0039-6060(19)30066-2. PMID: 30898373.

### SUMMARY OF THE STUDY

In this study, the authors used a Patient-Reported Outcomes Measurement Information System ( PROMIS). This is a 29-item profile measure that evaluates mental, physical and social health across 7 categories: depression, anxiety, pain interference, physical function, fatigue, sleep disturbance and ability to participate in social roles. It has been validated in the US population and in several cancer populations.

The survey was distributed in collaboration with the patient advocacy group Thyroid Cancer Survivors Association (ThyCa) using several online and social media sites from January to June 2017. Individuals who reported a diagnosis of thyroid cancer, who lived in the USA, and who were 18-89 years of age were eligible to take part. The survey was accessed by 3,174 individuals, of whom 1,743 reported living in the United States and completed the two parts of the survey. The data from this group was analyzed for this study.

The majority of the respondents were female (88%) and caucasian (95%). Although all types of thyroid cancer were included, the majority had been diagnosed with papillary type (85%). Approximately 30% of patients reported having had Stage 1 disease, 17% Stage 2, 14% Stage 3, 11% Stage 4 and 28% unknown stage. The overwhelming majority of patients (98%) had surgery for treatment and 78% also received radioactive iodine therapy. A much smaller percentage received external beam radiation (3.8%), chemotherapy (2.4%) and alternative therapies (3.2%).

The adverse effects reported depended on the type of treatment received, and included difficulty swallowing, difficulty with voice, concern with scar appearance, low blood calcium levels, dry mouth, dry eyes, change in taste and appetite.

Multiple factors were identified that had a statistically significant impact on health related quality of life. Younger patients (<45 years) had worse scores in the area of fatigue, depression and anxiety. People who reported infections in the surgical wound, difficulty swallowing and dry eyes after radioactive iodine therapy had worse scores related to pain. Patients who had treatment with chemotherapy, who developed infections of the surgical wound and lung scarring due to radioactive iodine therapy reported the worse physical functioning scores. Time since diagnosis was inversely associated with anxiety, depression, fatigue and sleep disturbance ( the longer time since diagnosis, the less significant association noted).





## THYROID CANCER, continued

### WHAT ARE THE IMPLICATIONS OF THIS STUDY?

This study is important because it is one of the first studies to describe the clinical factors associated with lower health related quality of life in thyroid cancer survivors using a validated measurement tool. Although it may not be fully representative of all thyroid cancer survivors, it used a large sample number and the results

were consistent with prior reports found in the literature. The results are important because the doctors' perspectives in quality of life may not be the same as patients. Knowing the patients' perspective on their quality of life after treatment will be an extremely important factor to incorporate when developing guidelines to treat thyroid cancer in the future.

— Jessie Block-Galarza, MD

### ATA THYROID BROCHURE LINKS

Thyroid Cancer (Papillary and Follicular): <https://www.thyroid.org/thyroid-cancer/>

Thyroid Surgery: <https://www.thyroid.org/thyroid-surgery/>

Radioactive Iodine: <https://www.thyroid.org/radioactive-iodine/>

### ABBREVIATIONS & DEFINITIONS

**Papillary thyroid cancer:** the most common type of thyroid cancer. There are 4 variants of papillary thyroid cancer: classic, follicular, tall-cell and noninvasive follicular thyroid neoplasm with papillary-like nuclear features (NIFTP).

**Radioactive iodine (RAI):** this plays a valuable role in diagnosing and treating thyroid problems since it is taken up only by the thyroid gland. I-131 is the destructive form used to destroy thyroid tissue in the treatment of thyroid cancer and with an overactive thyroid.

