

Thyroid Cancer FAQ

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What is thyroid cancer and its symptoms?

Thyroid cancer is the most common endocrine-related cancer. The outlook for patients with thyroid cancer is excellent in that safe and effective therapy is available in most cases. A lump (nodule) in the thyroid is the key sign of its presence. Most thyroid cancers do not cause any symptoms, and only rarely do they cause pain, difficulty in swallowing, or hoarseness.

What causes thyroid cancer?

Thyroid cancer is more common in people who have a history of exposure of the thyroid gland to radiation, have a family history of thyroid cancer, and are older than 40 years of age.

How is thyroid cancer diagnosed?

A diagnosis of thyroid cancer is made on the basis of a biopsy of a thyroid nodule or after the nodule is removed during surgery. Although thyroid nodules are very common, less than 1 in 10 contain a thyroid cancer.

What are the types of thyroid cancer?

Papillary thyroid cancer is the most common type of thyroid cancer (70% to 80% of thyroid cancers) and can occur at any age. Follicular thyroid cancer (10% to 15% of thyroid cancers) tends to occur in somewhat older patients than papillary cancer. Medullary thyroid cancer (5% to 10% of thyroid cancers) is more likely to run in families and may be diagnosed by genetic testing. Anaplastic thyroid cancer (less than 5% of thyroid cancers) is the least likely to respond to treatment.

What is the treatment of thyroid cancer?

Surgery. The primary therapy for patients with thyroid cancer is surgery, which is followed by thyroid hormone therapy for the rest of their life. This may be the only therapy needed in patients who are at low risk for recurrence of the cancer.

Radioactive iodine therapy. Radioactive iodine may be used as a “magic bullet” to destroy thyroid cancer cells after surgical removal of the thyroid gland. For radioactive iodine to be effective, high levels of TSH need to be produced in your body. To reach this goal, you will stop taking your thyroid hormone pills and become hypothyroid for a time. A low iodine diet may also help get the radioactive iodine into the cancer cells. Once the TSH level is high enough, a whole body iodine scan is done. If enough cells show up, a large dose of radioactive iodine (¹³¹I) is given, and then the thyroid pills are re-started. Radioactive iodine is usually well-tolerated, with few side effects.

What is the follow-up for thyroid cancer patients?

Periodic follow-up examinations are essential for all thyroid cancer patients and include a careful history, physical examination, ultrasound imaging of the neck and blood tests to measure the levels of T4 and thyroglobulin, which is a thyroid cancer marker. Your doctor may want to repeat every so often a whole body iodine scan to determine if any thyroid cells remain in the body. This can be done by having you stop your thyroid hormone and become hypothyroid (see above) or by giving you Thyrogen™ (synthetic human TSH) injections.

What is the prognosis of thyroid cancer?

Overall, the prognosis of thyroid cancer is very good, especially for patients younger than 40 years of age and those with small tumors. Most of these patients can be cured. Even those patients who are unable to be cured of their thyroid cancer can live a long time and feel well despite their cancer. Finally, new treatments are becoming available on a regular basis for the rare patient in whom surgery and radioactive iodine cannot destroy all of the cancer cells.

FURTHER READING

Further details on this and other thyroid-related topics are available in the patient information section on the American Thyroid Association website at www.thyroid.org.

REFERENCES

Cooper, D. S., G. M. Doherty, et al. (2006). “Management guidelines for patients with thyroid nodules and differentiated thyroid cancer.” *Thyroid* 16(2): 109-42.

Robbins, R. J. and A. K. Robbins (2003). “Clinical review 156: Recombinant human thyrotropin and thyroid cancer management.” *J Clin Endocrinol Metab* 88(5): 1933-8.

Rossi, R., E. Roti, et al. (2008). “Differentiated Thyroid Cancers 11-20 mm in Diameter Have Clinical and Histopathologic Characteristics Suggesting Higher Aggressiveness than Those ≤ 10 mm.” *Thyroid* 18(3): 309-15.