Shalamar Hospital is striving to provide our patients quality health care, at lowest possible costs.

Our hospital is continually active in pioneering new treatments and therapies to improve the lives of people in our community.

# Shalamar Hospital

### WHAT IS THE OUTLOOK?

The majority of thyroid cancers are treatable. The outlook for differentiated (papillary and follicular) cancer is particularly good and most patients are cured with a combination of surgery and RAI ablation, even if the cancer has spread to the lymph nodes. In a few cases, the cancer does not respond well to RAI ablation. New targeted treatments, such as tyrosine kinase inhibitors may be available and appropriate to treat these cancers and for advanced MTC when surgery is not possible.

Anaplastic cancer is a highly aggressive and uncommon form of thyroid cancer that typically affects older people. Treatment options may include surgery, chemotherapy, and radiotherapy.

Thyroid lymphoma, also known as non-Hodgkin's lymphoma of the thyroid, is a rare condition that primarily affects older individuals.

Receiving a cancer diagnosis can be an overwhelming and distressing experience, and it's normal to experience a range of emotions such as shock, denial, anger, fear, and uncertainty. Waiting for test results can also be a stressful time. If you find it challenging to discuss your feelings with family and friends, it may be beneficial to speak to an independent person or other patients who have gone through a similar experience. You can ask your doctor or specialist nurse for information on support groups, or you can contact the British Thyroid Foundation.

The outlook for most thyroid cancers is positive, with differentiated (papillary and follicular) cancer having a particularly good prognosis. Most patients are cured with a combination of surgery and RAI ablation, even if the cancer has spread to the lymph nodes. In some cases, however, the cancer may not respond well to RAI ablation. In such instances, new targeted treatments like tyrosine kinase inhibitors may be available and appropriate to treat these cancers, especially in advanced MTC when surgery is not feasible.

#### Here are some key points to keep in mind:

- 1. If you find a lump or swelling on your thyroid, it's important to see your doctor for investigation.
- 2. Differentiated thyroid cancer is typically very treatable, and many patients are cured.
- 3. If you undergo RAI ablation, it's recommended that women wait six months before attempting to conceive and men wait four months before fathering a child.
- 4. Thyroid issues can be hereditary, so family members who are experiencing symptoms should discuss the possibility of thyroid testing with their doctor.
- 5. Anaplastic cancer is a highly aggressive and uncommon form of thyroid cancer that typically affects older people. Treatment options may include surgery, chemotherapy, and radiotherapy.
- 6. Thyroid lymphoma, also known as non-Hodgkin's lymphoma of the thyroid, is a rare condition that primarily affects older individuals.



## **ENDOCRINE SURGERY CLINIC**

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While thyroid gland cancer is uncommon, its incidence is on the rise. Although receiving a cancer diagnosis can be distressing, thyroid cancer has a high cure rate, and most patients can live a complete and healthy life.

The most common types of thyroid cancer that physicians encounter are papillary thyroid cancer and follicular thyroid cancer, which are collectively known as "differentiated" thyroid cancer. However, other less frequent forms of thyroid cancer also exist. This guide will primarily focus on differentiated thyroid cancers since they are the most prevalent. It's worth noting that other forms of thyroid cancer may require distinct treatment approaches. When cancer cells share similar characteristics with normal thyroid cells, they are referred to as "differentiated."

If you experience symptoms such as a lump in your neck, a rapidly growing goiter, difficulty swallowing or a hoarse voice, it is essential to consult your doctor. Although most lumps and swellings in the thyroid gland are not cancerous, it is crucial to investigate any discovery. In some cases, a thyroid nodule may be detected during medical scanning for another ailment. The doctor will carry out a physical examination and perform thyroid blood tests, and may refer you to a specialist for further testing. The specialist will most likely arrange an ultrasound examination and, in some cases, a fine needle biopsy to extract cells from the lump or swelling for examination under a microscope. While about 19 out of 20 thyroid lumps are benign, a biopsy may indicate the presence of thyroid cancer in some cases. However, in some cases, the biopsy may not provide a definitive answer, necessitating further testing or repeated biopsy. Surgical removal of part of the thyroid gland may be the only way to determine if a thyroid lump contains cancer cells.

The treatment for thyroid cancer varies depending on the type and stage of cancer.

Surgery is usually the primary treatment for papillary and follicular cancers. A total thyroidectomy may be performed to remove the entire thyroid gland, or a hemithyroidectomy may be done to remove the affected side of the thyroid. The surgeon may also remove some of the lymph nodes in the neck to check for the spread of cancer. However, there is a small risk of damaging the parathyroid glands or voice. It is important to consult an experienced endocrine or head-and-neck surgeon who frequently performs thyroid and parathyroid surgery, as recommended by national guidelines.

Radioactive iodine ablation (RAI ablation) may be administered after surgery, which uses the unique ability of thyroid cells to store radioactive iodine. The radiation destroys the thyroid cells, but not other tissues, and is used to treat thyroid cancer without damaging other parts of the body. However, there are small risks of dry mouth, altered taste, and other cancers, which should be discussed with a specialist before consenting to treatment. Before RAI ablation, remaining thyroid cells, whether normal or cancerous, need to be stimulated by

raising the level of thyroid stimulating hormone (TSH). This can be done by injecting a man-made TSH called recombinant TSH or stopping thyroid hormone tablets a few weeks before treatment (thyroid hormone withdrawal).

After RAI ablation, patients can be monitored for the cure of cancer through a neck examination, blood tests, and/or scans. However, RAI ablation may not be given to patients who still have half their thyroid in their neck or have a low risk of cancer recurrence.

After the removal of your thyroid gland, you will be prescribed levothyroxine (L-T4) and will receive treatment with radioactive iodine ablation (RAI ablation) to destroy any remaining cancer cells. Before RAI ablation, you will receive two injections of recombinant human TSH (rhTSH), also known as Thyroxin®, given into the buttock on two consecutive days. Alternatively, if you are due to receive RAI ablation relatively soon after your surgery, you may receive Liothyronine (L-T3) instead of L-T4, which will be stopped two weeks before the RAI ablation. If there is a longer gap between surgery and RAI ablation, you may receive L-T4, which will be stopped six weeks before the RAI ablation and replaced with L-T3 for four weeks before that is also stopped. During this time, you may experience symptoms of hypothyroidism, such as feeling cold, having dry hair and skin, constipation, tiredness, and sometimes concentration problems and mood changes. To prepare for the RAI ablation, you should also follow a low-iodine diet, which your doctor or specialist nurse will provide guidelines for you to follow.

The RAI ablation treatment involves taking radioactive iodine usually in the form of a capsule. You may need to stay in the hospital for a few days in a single room, as the treatment will make you radioactive. During this time, you will need to take precautions to prevent exposing other people to radioactivity, such as restricting visitors and their length of stay. After treatment, women should avoid conceiving for six months, and men should avoid fathering children for four months. In some cases, RAI ablation may not remove all of the thyroid cancer cells, and you may require further treatment.

It is important to note that remaining on L-T4 throughout the RAI ablation treatment will avoid the symptoms of hypothyroidism. However, if you are pregnant, you must not have RAI ablation treatment. Your doctor or specialist nurse will provide you with further details about the restrictions you should follow.

Levothyroxine, also known as L-T4, is a synthetic hormone that replaces the natural thyroid hormone produced by your body and prevents hypothyroidism. You will need to take this medication for the rest of your life. The amount of levothyroxine prescribed may be higher than usual to suppress blood TSH levels, which can stimulate any remaining thyroid cells to grow. TSH suppression may only be necessary for a short period (less than 12 months) if your response to treatment is excellent. You should not change your dosage without consulting your consultant.

The follow-up you receive will depend on your consultant's decision. Patients with small cancers that have been surgically removed may not require follow-up. If you have had surgery and RAI ablation, you will generally have regular blood tests to check your thyroid hormone levels (TSH,T4) and thyroglobulin (Tg) in your blood. Tg is produced only by normal or thyroid cancer cells and serves as a sensitive marker for any remaining thyroid cancer cells in your body. You may also have an ultrasound scan, and other scans may be necessary in some cases. If you experience any unexplained symptoms between check-ups, you should discuss them with your doctor.

If you require a radioactive iodine scan, it may be possible to use Thyroxin® instead of stopping your levothyroxine medication.

# WHAT ABOUT OTHER TYPES OF THYROID CANCER?

One type of thyroid cancer is medullary thyroid cancer (MTC). MTC is rare and originates in the C cells of the thyroid gland, which produce a hormone called calcitonin. Some types of MTC are linked to other endocrine abnormalities and may run in families. If there is a family history of MTC, individuals should be referred to a genetic counselling center.

Treatment for MTC usually involves complete removal of the thyroid gland (total thyroidectomy) and, in some cases, removal of nearby lymph nodes. Follow-up care for MTC is similar to that for differentiated thyroid cancer, including regular ultrasound scans and blood tests, but measuring calcitonin levels instead of thyroglobulin. MTC does not respond to radioactive iodine or TSH suppression, so these treatments are not necessary.

This is another rare and unfortunately aggressive form of thyroid cancer. It usually affects older people. Treatment may involve surgery, chemotherapy and radiotherapy.

There is also a rare condition known as a thyroid lymphoma or non-Hodgkin's lymphoma of the thyroid, which occurs mainly in older people.

Hearing that you might have cancer is a devastating experience. You may feel a whole range of emotions: shock, denial, anger, fear and uncertainty. Waiting for the test results can be very stressful. All these feelings are normal. If you find it hard to talk about it with family and friends, you may find it helpful to talk to someone independent or to other patients who have gone through what you may be experiencing now. Ask your doctor or specialist nurse about support groups or contact the British Thyroid Foundation.