

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.

If you have hyperthyroidism and plan to become pregnant, you should consult with your doctor and use contraception in the meantime. It is preferable to have a thyroid function test before becoming pregnant and very early in pregnancy as you may need to change your medication and undergo more frequent blood tests. Do not stop taking antithyroid drugs before speaking to your doctor as untreated overactive thyroid gland poses a greater risk to the pregnancy than taking antithyroid medication.

During the period of thyroid overactivity, you may have gotten used to increased food intake without experiencing weight gain due to increased metabolism. However, once your thyroid function and metabolism are normalized through treatment, you may need to reduce your food intake to avoid undesired weight gain.

Here are some key points to keep in mind about thyroid disorders:

- You will typically be referred to an endocrinologist who specializes in thyroid and other endocrine disorders.
- It is crucial to take your medication as prescribed, as missing doses can impact your blood test results and overall health.
- Do not stop taking any thyroid medication without consulting your doctor, even if you develop other medical conditions.
- If you are pregnant or planning to conceive, inform your doctor as you may require adjustments to your medication and more frequent blood tests.
- Some medications can affect your blood test results, so be sure to inform your doctor about any prescription or non-prescription medications you are taking.
- If you are taking antithyroid drugs and experience symptoms like a sore throat, mouth ulcers, rash, or unexplained fever, discontinue the medication immediately and seek medical attention.
- If you are taking PTU and notice yellowing of the eyes or skin, see a doctor immediately and request a liver enzyme test.
- Thyroid disorders tend to run in families, so encourage family members who are experiencing symptoms to speak with their doctor about the need for thyroid testing.




Hyperthyroidism


ENDOCRINE SURGERY CLINIC

Department of Surgery, Shalamar Hospital

 Shalimar Link Road, Lahore.

 Shalamar74

 +92 (42) 111-205-205 Ext: 325

 www.shalamarhospital.org.pk

Hyperthyroidism is a medical condition characterized by the overproduction of thyroid hormones by the thyroid gland, also known as an overactive thyroid or thyrotoxicosis. This can be caused by several factors, such as Graves' disease, a toxic multinodular goiter, a solitary toxic thyroid adenoma, or temporary and self-limiting thyroiditis. Additionally, taking too much replacement thyroxine for hypothyroidism can also lead to hyperthyroidism. For proper evaluation, most patients with hyperthyroidism should undergo an initial assessment by a specialist in thyroid disorders.

HOW DOES HYPERTHYROIDISM MANIFEST?

When the thyroid gland produces more hormones than the body needs, it can cause an increase in metabolism and a variety of symptoms, including: weight loss, even with an increased appetite; palpitations and rapid pulse; sweating and heat intolerance; fatigue and weak muscles; nervousness and irritability; tremors; mood swings or aggressive behavior; loose stools and occasional nausea; warm, moist hands; thirst; increased urination; itchiness; an enlarged thyroid gland; and thyroid eye disease. While some patients may not notice subtle symptoms for a long time, others may experience sudden and severe symptoms over a few days or weeks. Although many symptoms may improve with treatment, thyroid eye disease may require separate treatment. A specialist in thyroid disorders should assess most patients with hyperthyroidism initially.

WHAT IS GRAVE'S DISEASE?

Graves' disease is a prevalent cause of hyperthyroidism in Pakistan, especially in women, and is named after an Irish physician named Robert Graves who identified it in the 19th century. Some patients with Graves' disease have an enlarged thyroid gland or goiter, which produces excess thyroid hormones leading to symptoms of hyperthyroidism. Roughly one-third of patients with Graves' disease experience thyroid eye disease, which can cause the eyes to bulge and feel gritty or sore, and even double vision in some cases. Your doctor can recognize Graves' disease by the presence of a goiter or eye problems.

Graves' disease is caused by an autoimmune response in the body, where the immune system mistakenly attacks the thyroid gland, causing it to become overactive. The disease tends to run in families, indicating a strong genetic component, and stress may also play a role. People who smoke cigarettes are more prone to Graves' disease and up to eight times more likely to develop thyroid eye disease than non-smokers.

HOW HYPERTHYROIDISM IS DIAGNOSED?

To diagnose hyperthyroidism, a physical examination and blood

tests are typically conducted. A low thyroid-stimulating hormone (TSH) blood level, below the reference range, and a high thyroxine (FT4) blood level, above the reference range, are often indicative of an overactive thyroid. Additionally, a blood test to measure the levels of antibodies, specifically the "TSH receptor antibody," can help determine if the cause of hyperthyroidism is Graves' disease. In some cases, a thyroid scan may also be conducted by a specialist.

HOW HYPERTHYROIDISM IS TREATED?

Hyperthyroidism can be treated in several ways, depending on the type and severity of the condition. The available treatments include antithyroid drugs, surgery, and radioactive iodine. In some cases, hyperthyroidism caused by thyroiditis may settle down on its own without specific treatment.

Antithyroid drugs are usually the first treatment option and are often used for children and pregnant women. Carbimazole (CMZ) is the drug of choice in the Pakistan, but if it causes side effects or if a woman is pregnant or planning to become pregnant, Propylthiouracil (PTU) may be used instead. A course of antithyroid drug treatment usually lasts up to eighteen months and gives a 30-50% chance of a cure, depending on the size of the goiter and the severity of the overactivity. It is important to take the medication as prescribed and not stop it unless advised by a doctor, even if another illness develops. Smoking reduces the chance of a cure after a course of antithyroid drugs.

Surgery is usually recommended for younger patients with large goiters, for those with severe disease, and for those whose thyroid overactivity comes back after a course of antithyroid drugs. After surgery, the patient will likely need to take levothyroxine for the rest of their life.

Radioactive iodine treatment (RAI) is highly effective, safe, and rarely causes side effects. It is usually recommended for patients with Graves' disease, and can also shrink the goiter. After RAI treatment, the patient may need to take levothyroxine for life. However, RAI is not advised if the patient has active thyroid eye disease unless they are also treated with steroids.

Beta blockers are sometimes used in the first few weeks after diagnosing hyperthyroidism to relieve some of the symptoms while waiting for other treatments to take effect.

It's important to note that antithyroid drugs have a rare and unpre-

dictable side effect called agranulocytosis, which can cause a lowering of white blood cell count. Patients with low white blood cells may develop a sore throat, mouth ulcers, rash, or fever. If these symptoms occur, it is important to stop taking the medication immediately and have your white blood cell count checked urgently, either through your doctor or at the local Accident and Emergency department. In most cases, it turns out to be a false alarm and the patient can restart their medication.

Another rare but serious side effect of antithyroid drugs is liver injury. PTU, in particular, has been associated with liver injury in some patients, especially during the first six months of taking the drug. Patients taking PTU should be monitored for symptoms of liver injury and discontinue the medication if liver injury is suspected. If yellowing of the eyes or skin occurs, the patient should see their doctor immediately.

Regular monitoring of blood count or liver functions is not recommended due to the rare and unpredictable nature of these side effects. However, some doctors may choose to do a baseline test to monitor any future changes.

WHAT SHOULD BE DONE AFTER THE DIAGNOSIS AND TREATMENT ADVISED?

After receiving antithyroid drug treatment for hyperthyroidism, regular blood tests will be conducted every two to six months during the initial period of treatment, and every six to twelve months during long-term treatment. If the cause of the thyroid overactivity is Graves' disease, a single course of antithyroid drug treatment may cure your hyperthyroidism. However, if you are symptom-free and your thyroid blood tests are normal one year after treatment, you will still need to occasionally undergo thyroid blood tests to monitor your condition.

It is important to see your doctor and request a blood test if you experience any symptoms of hyperthyroidism in the future. If you have had radioactive iodine or surgery, you should undergo frequent blood tests to check your thyroid function until you are stable, and then once a year after that, as there is a long-term risk of developing hypothyroidism. Symptoms of hypothyroidism include weight gain, feeling the cold, dry skin and hair, pins and needles in the fingers, lack of energy, and puffiness of the face. Your doctor should also be informed if you are taking any other prescription or over-the-counter medication as it may affect your blood tests.