



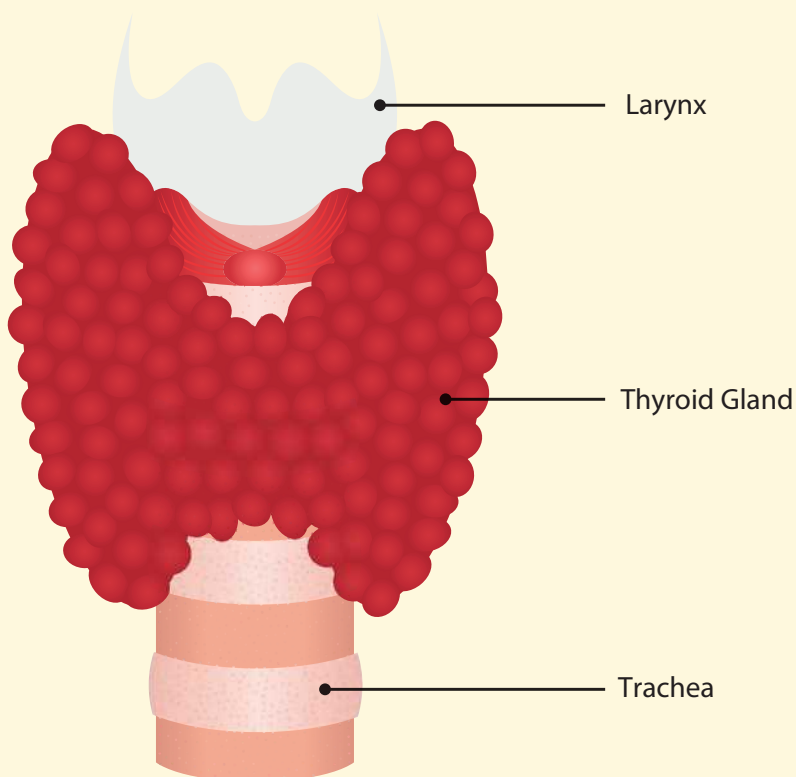
Hyperthyroidism



Changi
General Hospital
SingHealth

What is the thyroid gland?

The thyroid gland is a butterfly-shaped gland located in the lower front neck. It produces thyroid hormones, which play a key role in regulating the body's metabolism, temperature, heart rate, weight, bone health and fertility.



What is hyperthyroidism?

Hyperthyroidism occurs when there are excess thyroid hormones in the body.

Common causes include:

- Graves' disease (an autoimmune condition characterised by an over-active thyroid gland caused by circulating antibodies).
- Active thyroid nodules.
- Acute inflammation of the thyroid gland.
- Certain medications that can affect the thyroid function, including Amiodarone and some cancer immunotherapies.

What are the symptoms and signs of hyperthyroidism?



Heat intolerance and sweatiness



Weight loss



Irritability



Palpitations



Hand tremors



Frequent loose stools



Infrequent / no menses



Muscle weakness



Neck swelling



Eye swelling and puffy eyelids (in some cases of Graves' disease)

Diagnosis

Blood tests will be carried out to confirm elevated thyroid hormone levels, indicating hyperthyroidism. Your doctor will also review the results and monitor for elevated thyroid antibody levels to determine if Graves' disease is the cause. In some cases, an ultrasound scan and/or a special uptake scan of the thyroid scan may be arranged.

Treatment

It is important to treat hyperthyroidism as it can have adverse effects on the heart and bone.

Female patients of reproductive age should inform their doctors of their pregnancy plans at least six months earlier. Pregnant patients with hyperthyroidism will need closer monitoring of thyroid hormone levels, and adjustments in thyroid medications may be required during pregnancy and after delivery. Your doctor and care team will work closely with you to manage your condition.

Treatment of hyperthyroidism depends on the underlying cause. Thyroid inflammation may require a short course of anti-inflammatory and symptomatic treatment, while other causes may be treated with medication, radioactive iodine, or surgery.

Medications

Anti-thyroid medications such as Carbimazole (CMZ) or Propylthiouracil (PTU) may be prescribed to reduce the production of thyroid hormone. Some patients may experience mild side-effects such as itchiness, rash, joint pain, abnormal taste sensation, nausea and vomiting. A small minority (<1%) may suffer from more serious side-effects such as liver impairment and low white blood cell count. Patients who experience symptoms such as high fever, severe sore throat, mouth ulcers, yellowing of skin/eyes, or darkening of urine colour are advised to consult their doctor as soon as possible, and have their blood checked.

Another group of rate-control medications (e.g., Propranolol) may be prescribed to treat symptoms of palpitations, hand tremors and irritability until hyperthyroidism improves.

Radioactive iodine

Some patients with hyperthyroidism may benefit from radioactive iodine, which serves to destroy the thyroid cells. However, those with eye complications due to their thyroid disease may not be suitable. Radioactive iodine treatment may take weeks to months, and medications may be required in the interim. Patients on radioactive iodine treatment are advised to avoid prolonged close contact with small children and pregnant women for 2-3 weeks. Female patients of reproductive age who are treated with radioactive iodine are also advised to avoid pregnancy and breastfeeding for six months. There is a possibility of developing hypothyroidism (under-activity of the thyroid gland) following radioactive iodine treatment, requiring long-term thyroid hormone replacement.

Surgery

Surgery by specialised neck surgeons may be recommended for patients who do not benefit from the other treatment modalities, or for those with a very large thyroid gland that causes obstructive symptoms such as difficulty in breathing or swallowing. There is a low risk of hoarseness of voice and low blood calcium levels after surgery, which is usually temporary. Patients may also develop hypothyroidism after surgery (depending on the extent of surgery), requiring long-term thyroid hormone replacement.

For more information on hyperthyroidism, please consult your doctor.



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