Overactive thyroid (hyperthyroidism)

Your thyroid is a small, butterfly-shaped gland in your neck. It produces two thyroid hormones. These hormones are tri-iodothyronine (T3) and thyroxine (T4). Thyroid hormones help your body use energy and stay warm. They keep your brain, heart, muscles and other organs working as they should.

Overactive thyroid (hyperthyroidism) happens when your thyroid gland makes too much of these hormones. This causes your body's metabolism to speed up, which in turn can cause symptoms. It's more common in women than men and can occur at any age.

There are several causes for overactive thyroid. Treatments include tablets, radioactive iodine and surgery.

Symptoms of an overactive thyroid

Symptoms of an overactive thyroid include:

- feeling nervous or anxious
- shaking
- sweating more than usual
- have a racing heartbeat, or palpitations
- losing weight even though you have a good appetite
- tiredness and muscle weakness
- a swollen thyroid gland (called a goitre).

You may also get problems with your eyes, have difficulty sleeping and diarrhoea. If you’re a woman, you may notice your periods become lighter.

If left untreated for a long time, you can develop thin bones (osteoporosis).
Causes of an overactive thyroid

Grave's disease is the commonest cause of an overactive thyroid. This is an autoimmune disease. Your immune system usually fights off infection but when you have an autoimmune disease, your immune system attacks your own cells. Your body makes a tiny protein (antibody) that attaches to your thyroid, causing it to make too much thyroid hormone. We don't know what triggers this, but it sometimes runs in families.

Thyroid nodules (lumps) can produce too much thyroid hormone. This can either be a single nodule or several, known as multinodular goitre (enlarged thyroid).

Rarer causes include some medicines, such as lithium or amiodarone and inflammation of the thyroid known as thyroiditis.

Diagnosing an overactive thyroid

A blood test measures your thyroid hormones and TSH (thyroid stimulating hormone).

TSH is a hormone that controls how much thyroxine you make. It's made by your pituitary gland at the base of your brain. If your thyroid is already making too much thyroxine, your TSH will be low.

In Graves' disease, a blood test may show thyroid antibodies.

If you have raised thyroxine levels, you'll either need a nuclear medicine scan or an ultrasound scan of your thyroid.

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