Parathyroid Adenoma

What Is A Parathyroid Adenoma?

A parathyroid adenoma is a non-cancerous (benign) tumour that develops in one of the parathyroid glands, which are located in the neck behind the thyroid gland. These small glands are responsible for regulating calcium levels in the body by producing parathyroid hormone (PTH).

A parathyroid adenoma causes excessive production of PTH, leading to high calcium levels (hypercalcaemia) in the blood. This condition is known as primary hyperparathyroidism, which can result in a variety of health problems if left untreated.

What Causes A Parathyroid Adenoma?

The exact cause of a parathyroid adenoma is not always clear, but possible factors include:

- **Genetic mutations** – changes in certain genes may increase the risk
- **Radiation exposure** – previous radiation therapy to the neck may contribute
- **Inherited conditions** – some people have a family history of parathyroid disease (e.g., multiple endocrine neoplasia, MEN)

What Are The Symptoms Of A Parathyroid Adenoma?

Many people with a parathyroid adenoma experience no obvious symptoms, but as calcium levels rise, they may develop:

- **Fatigue and weakness** – feeling tired even after resting
- **Frequent urination and excessive thirst** – caused by high calcium levels affecting kidney function
- **Bone pain and fractures** – calcium is removed from bones, increasing the risk of osteoporosis
- **Kidney stones** – due to excess calcium forming deposits in the kidneys

- **Digestive issues** – nausea, constipation, or abdominal discomfort
- **Depression or anxiety** – mood changes linked to abnormal calcium levels
- **Memory problems and brain fog** – difficulty concentrating or forgetfulness

If left untreated, a parathyroid adenoma can lead to serious complications, including kidney damage and severe bone loss.

How Is A Parathyroid Adenoma Diagnosed?

To confirm the presence of a parathyroid adenoma, your doctor may perform:

- **Blood tests** – to check calcium and parathyroid hormone (PTH) levels
- **Urine tests** – to measure calcium levels and assess kidney function
- **Neck ultrasound** – to locate an enlarged parathyroid gland
- **Sestamibi scan (parathyroid scan)** – a nuclear medicine test to identify an overactive gland
- **CT or MRI scan** – sometimes used for further evaluation

How Is A Parathyroid Adenoma Treated?

The main treatment for a parathyroid adenoma is parathyroidectomy, a surgical procedure to remove the overactive gland.

Surgery (parathyroidectomy)

- **Minimally invasive parathyroidectomy** – if imaging identifies the affected gland, a small incision is used to remove it
- **Bilateral neck exploration** – if imaging does not clearly show the adenoma, the surgeon will explore both sides of the neck to find the abnormal gland

What happens during surgery?

- The procedure is performed under general anaesthesia
- A small incision is made in the neck
- The overactive parathyroid gland is removed, while the healthy glands are preserved
- The incision is closed with dissolving stitches, leaving a minimal scar
- Most patients stay overnight and go home the next day

What Are The Risks Of Parathyroidectomy?

Parathyroid surgery is **safe and effective**, but like any operation, it carries some risks, including:

- **Bleeding or infection** – rare but possible
- **Temporary low calcium levels (hypocalcaemia)** – the remaining glands may take time to adjust, requiring short-term calcium supplements
- **Voice changes** – damage to the nerves controlling the vocal cords is rare but can cause hoarseness
- **Persistent hyperparathyroidism** – if not all overactive tissue is removed, calcium levels may remain high

What Happens After Surgery?

Most patients **recover quickly**, and symptoms begin to improve soon after surgery.

Post-surgery care:

- **Pain management** – mild discomfort can be treated with paracetamol or ibuprofen
- **Calcium monitoring** – some patients need temporary calcium supplements while their remaining

parathyroid glands adjust

- **Follow-up blood tests** – to ensure calcium and PTH levels return to normal
- **Activity levels** – most patients return to normal activities within a few days

Can A Parathyroid Adenoma Come Back?

In most cases, removing the affected gland completely cures primary hyperparathyroidism. However, in rare cases, another parathyroid gland may become overactive later in life, requiring further treatment.

Why Choose Birmingham Head And Neck Clinic?

At Birmingham Head and Neck Clinic, we offer specialist expertise in diagnosing and treating parathyroid conditions, ensuring the best possible care. Our team provides:

- Advanced imaging and diagnostic tests to accurately locate parathyroid adenomas
- Minimally invasive surgical techniques for faster recovery and minimal scarring
- Personalised treatment plans tailored to your condition
- Comprehensive post-surgical care to monitor recovery and long-term health

Contact Us

If you have been diagnosed with a parathyroid adenoma or have concerns about high calcium levels, we are here to help.