

Parathyroid Surgery

Surgery is often recommended for people whose blood calcium is moderately elevated. Surgery is also recommended for people who are excreting a significant amount of calcium through their urine and for people with signs of impaired kidney function or decreased bone density.

It is also recommended if the person is less than 50 years old or if periodic follow-up would be difficult (e.g., if a person lived a great distance from a healthcare provider or travels to places where it is difficult to find medical care).

Traditional surgery

The surgery is usually performed while the person is under anesthesia. An incision is made in the lower neck measuring 5 to 10 cm (2 to 5 inches). All four parathyroid glands are found and examined; usually, at least one abnormal-appearing gland is removed while the normal-appearing glands are left in place. The patient's blood level of PTH (parathyroid hormone, made by the parathyroid gland) is tested before and immediately after removal to confirm that the PTH level drops significantly after the abnormal tissue is removed, to ensure that all of the abnormal tissue has been removed.

Minimally-invasive surgery

Minimally-invasive surgery can be performed in cases where one abnormal parathyroid gland has been located by a pre-operative imaging study.

The surgery can be performed under local nerve block, and is an alternative when one abnormal gland has been localized pre-operatively. This procedure is also a good alternative for patients who are at high-risk for general anesthesia. A probe is used to localize the hyperactive parathyroid gland that is causing the high calcium levels. The surgeon makes a small incision (2 to 4 cm or 0.8 to 1.8 inches) over that one gland in the neck and just the abnormal gland is removed. The patient's blood level of PTH is tested before and immediately after removal to confirm that the PTH level drops significantly after the abnormal tissue is removed.

The advantage of minimally invasive surgery compared with traditional surgery is that it requires a smaller incision, less time under anesthesia, and a shorter hospital stay. This approach allows the surgeon to quickly remove the appropriate parathyroid without risking injury to the other parathyroids, which can cause "Hypoparathyroidism," or injury to other important structures in the neck. This procedure is only available for people with certain characteristics and it requires an experienced surgeon and medical center.

Risks of Parathyroid Surgery Include (but not limited to):

- Injury to small nerves in the neck, which can cause problems with the vocal cords, and can cause a change in your voice
- Bleeding/ Hematoma (blood collection under the skin at surgical area)
- Seroma (collection of simple fluid under the skin)
- Hypocalcemia (low calcium level due to removal of the parathyroid glands attached to the thyroid gland, which control your body's calcium level)
- Infection

- Hypoparathyroidism (low level of parathyroid hormone) and Hypocalcemia (low calcium levels in the blood which is controlled by the parathyroid hormone) – this is usually temporary but can be permanent. You will need to take calcium and vitamin D supplements
 - Need for further surgery or other procedures
-

Recovery from Parathyroid Surgery

You will likely be hospitalized for 1-3 days following surgery to watch closely for any complications or bleeding. You may have a small surgical drain in your neck after surgery to collect any fluid, and to prevent fluid from building up under the skin. Most people are able to return to their normal activities within a week. Ask your doctor about any specific restrictions after surgery.

You will be started on a calcium and vitamin D supplement before leaving the hospital to prevent low calcium levels after surgery. You will likely be on calcium and vitamin D supplements for at least 6 weeks. Your primary care doctor will test your calcium levels and decide when you can stop taking the calcium.