

# Minimally invasive video-assisted parathyroidectomy

Information for the public

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[www.nice.org.uk](http://www.nice.org.uk)

## What has NICE said?

Minimally invasive video-assisted parathyroidectomy is safe enough and works well enough for use in the NHS. It should only be done by doctors with specific training and experience in the procedure.

### What does this mean for me?

Your health professional should fully explain what is involved in having this procedure, and discuss the possible benefits and risks with you. You should also be told how to find more information about the procedure. All of this should happen before you decide whether you want to have this procedure or not.

## Your healthcare team

A healthcare team experienced in parathyroid surgery should decide who should be offered this procedure, and should carry out the treatment.

## The condition

The parathyroid glands are in the neck. There are usually 4, each about the size of a grain of rice. The glands produce parathyroid hormone, which controls the levels of calcium and phosphate in the blood. Too much parathyroid hormone is called hyperparathyroidism. It can cause tiredness, depression, confusion, constipation, excessive thirst, kidney stones, excessive urination, bone pain and fractures. There are 2 main types: primary (caused by changes in the parathyroid glands) and secondary (due to other conditions such as kidney disease and vitamin D deficiency).

People with mild hyperparathyroidism may not need active treatment, but are regularly monitored. Severe hyperparathyroidism is usually treated by surgery to remove 1 or more parathyroid gland, depending on the underlying cause. The medical name for this is parathyroidectomy. Usually, this is done using an 'open' technique, in which a cut of about 3-6 cm long is made across the neck, or sometimes with an open minimally invasive technique, in which the cut is 2-3 cm.

NICE has looked at using [minimally invasive video-assisted surgery](#) to remove the parathyroid glands as another treatment option for severe hyperparathyroidism.

NHS Choices ([www.nhs.uk](http://www.nhs.uk)) may be a good place to find out more.

## The procedure

Minimally invasive (keyhole) video-assisted surgery to remove abnormal parathyroid glands is done under general anaesthesia. It involves making a tiny cut in the neck. The surgeon then inserts a thin flexible tube with a camera on the end through the cut. This sends pictures to a screen to help the surgeon see the parathyroid glands and surrounding tissue. Surgical instruments through the cut to find and remove any abnormal glands. The cut is usually made in the centre of the neck just above the breastbone to access glands on both sides. Sometimes, the cut is made on the side of the neck.

The aim of video-assisted keyhole surgery is to be able to use smaller cuts than with 'open' surgery, so that there is less pain and scarring after surgery.

## Benefits and risks

The evidence that NICE looked at for video-assisted keyhole surgery to remove abnormal parathyroid glands showed that the procedure was safe enough and worked well enough to be used on the NHS for this condition.

The 8 studies that NICE looked at involved a total of about 1180 patients treated by video-assisted keyhole surgery.

Generally, they showed the following benefits:

- 97-100% of patients with hyperparathyroidism were cured
- 5-14% of patients who started having video-assisted keyhole surgery had to change to have open surgery
- similar or better cosmetic results than open surgery
- less or similar amounts of pain than with open surgery.

The studies showed that the risks included:

- paralysis of 1 vocal cord in 3% of patients, which can affect ability to speak clearly or loudly and causing breathlessness, which got better within 3 months
- temporary or permanent damage to a nerve going to the voice box, each in 1% of patients, which can cause changes such as difficulty in speaking or swallowing
- bleeding after the operation in 1 patient, who needed more surgery
- low levels of calcium in the blood in 3–13% of patients, which caused symptoms in some and, in 2 patients, needed treatment with vitamin D.

If you want to know more about the studies, see the [guidance](#). Ask your health professional to explain anything you don't understand.

# Questions to ask your health professional

- What does the procedure involve?
- What are the benefits I might get?
- How good are my chances of getting those benefits? Could having the procedure make me feel worse?
- Are there alternative procedures?
- What are the risks of the procedure?
- Are the risks minor or serious? How likely are they to happen?
- What care will I need after the procedure?
- What happens if something goes wrong?
- What may happen if I don't have the procedure?

## About this information

NICE [interventional procedures guidance](#) advises the NHS on the safety of a procedure and how well it works.

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## Accreditation

