

## What will the doctor do?

When PHPT is diagnosed your doctor will assess the risks to you due to the condition. You will have blood and urine tests to see what the level of calcium is in the blood and the urine and whether it has caused you any harm. You will be asked if you have had kidney stones or have fractured any bones. A DXA scan, that measures your bone density, might be arranged as may a scan of your kidneys. You will also be asked whether anyone else in your family has had a problem with their parathyroid glands as PHPT can occasionally be inherited from your parents.

Your doctor will also discuss the best way to deal with your PHPT. As stated above, if your level of calcium is very high, if you have symptoms from the high calcium or if you are below the age of 50 then surgery will normally be advised. Before surgery you might be sent for some additional scans to try to identify the position of the parathyroid adenoma before surgery. This might enable the surgeon to do a more focussed 'minimally invasive' operation.

## What happens in the long-term?

PHPT is normally curable with surgery and you should expect to resume a normal life after surgery. If surgery is not advised, or if you decide not to have surgery, regular follow up visits will be needed to make sure the level of calcium does not increase and to see if you have developed any new problems due to the PHPT. You will also be given lifestyle advice such as to avoid dehydration, to continue to take a reasonable level of calcium in your diet and to seek medical help if you develop persistent vomiting and diarrhoea.

## Further information/useful websites:

General PHPT information page from Hypoparathyroidism UK  
<http://hpth.org.uk/hpth.php?id=154>

General PHPT information leaflet from Patient UK  
<http://www.patient.co.uk/health/Hyperparathyroidism.htm>

General PHPT information from You & Your Hormones  
[http://www.yourhormones.info/Endocrine\\_conditions/Primary\\_hyperparathyroidism.aspx](http://www.yourhormones.info/Endocrine_conditions/Primary_hyperparathyroidism.aspx)

# Primary Hyperparathyroidism

## Information Sheet

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**This information sheet is for people who have primary hyperparathyroidism ('PHPT' for short). It will give some background information and advice on PHPT. It will also discuss when PHPT needs treatment and what types of treatments there are.**

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## What is Primary Hyperparathyroidism (PHPT)?

PHPT is a common medical problem caused by over-activity of the parathyroid glands. Most people have four parathyroid glands that are in the neck close to the thyroid gland. The parathyroid glands control the level of calcium in the blood. They do this by making a hormone called 'parathyroid hormone'. In PHPT one or more of the parathyroid glands starts working too hard and produces too much parathyroid hormone. This causes an increase in the level of calcium in the blood.

## How is PHPT diagnosed?

Doctors usually diagnose PHPT after finding a high level of calcium on a blood test. There are many causes of a high calcium level but PHPT is usually the cause when the level of parathyroid hormone is high. The most common reason why the parathyroid gland works too hard is the development of an 'adenoma' in the gland. An adenoma is a benign (non-cancerous) growth that only causes a problem because it makes too much parathyroid hormone. Less commonly one or more glands just get too big. This is called hyperplasia.

## What are the effects of PHPT on the body?

Most commonly, PHPT does not affect how you feel. You would not know you had a problem without a blood test. However, if the level of calcium in the blood rises too high this can make you feel unwell. The symptoms include just feeling tired, having nausea, indigestion or constipation, being thirsty and passing an abnormally high amount of urine. This can lead to dehydration. Since high levels of calcium in the blood can pass into the urine there is an increased risk of kidney stones forming. Even though the level of calcium is high in the blood the amount of calcium in the bones is often reduced in PHPT. This can lead to more brittle bones and an increased risk of bone fracture.

## What are the risks with PHPT?

The risk of having problems with PHPT will depend on the level of calcium in the blood. The higher the level of calcium the more likely that you will develop problems. It will also depend on your age. If you are less than 50 years old the chance of having a problem at some point in your life will be very high.

## Does PHPT need treatment?

If PHPT is not causing any symptoms, and the risk of having a problem in the future is low, then it is possible that no treatment will be needed. You will however need to have regular checks to make sure the level of calcium in the blood does not increase, that your kidneys are working normally and that the density of your bones remains normal. If you have symptoms from PHPT, or there is evidence that PHPT is affecting your health, then treatment will be required. If you have had kidney stones, have low bone density or are under the age of 50, you will usually require treatment.

The most commonly recommended treatment for PHPT is a surgical operation called a 'parathyroidectomy'. In this operation the abnormal parathyroid tissue is found and removed. This operation does not take very long and has a very high chance of curing the condition. The risk of complications is very low if done by an experienced surgeon.

## Other treatments:

A surgical operation is currently the only way of curing PHPT. In people where the only problem with PHPT is a reduction in bone density, bisphosphonates (drugs such as alendronate which are used for osteoporosis) might be recommended rather than an operation. In people who develop a very high level of calcium in the blood but are not well enough to have an operation a drug called cinacalcet might be given. This drug lowers the level of calcium back to a safe level but does not increase bone density or reduce the risk of developing kidney stones. Some patients taking this medication develop side effects, most commonly, nausea.