

## Information for patients with Pituitary Tumours

- A lump in the pituitary gland is called a pituitary tumour or pituitary adenoma.
- These tumours are almost always non-cancerous (benign).
- They are very common, occurring in about 10% of the population.
- A pituitary tumour can produce too much pituitary hormone (functioning)
- Or not make hormone and just slowly grow in size (non-functioning). Often, these tumours may present later since there are not many symptoms to flag up to a doctor.

### What problems do pituitary tumours cause?

A tumour can grow to a size where it presses on nearby structures, including the nerve supply to the eyes.

A large tumour may squash the normal cells in the pituitary gland and stop them working properly, causing certain pituitary hormone levels to be low.

The tumour may produce high levels of one or more of the pituitary hormones.

In addition to describing pituitary tumours according to what hormones they are making, pituitary tumours are also classified according to their size. Tumours greater than 1cm in diameter are called macroadenomas and less than 1 cm are called microadenomas.

### How would I know if I had a pituitary tumour?

Overproduction of certain pituitary hormones can cause specific clinical syndromes:

- High levels of growth hormone (GH) can cause **acromegaly**.
- Too much adrenocorticotrophic hormone (ACTH) produces Cushing's disease.
- Prolactinomas increase blood levels of prolactin.

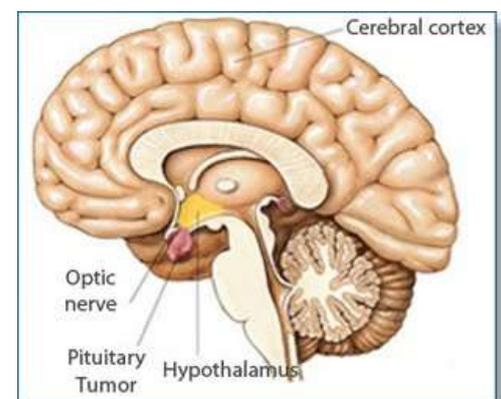
In terms of the pituitary tumour itself, particularly if a tumour is large (macroadenoma), patients can complain of **headaches** or difficulty with their **eyesight**.

If a large tumour is preventing the rest of the pituitary gland working properly, there may be symptoms of an underactive pituitary gland including **tiredness**, **light-headedness**, **irregular periods** (women), and **difficulty with erections** (men) or a low sex drive (libido).

### How are pituitary tumours diagnosed?

Here at **Imperial College Healthcare NHS Trust**, our multidisciplinary pituitary service has enormous experience in the management of all types of pituitary tumour.

Evaluation of a patient with a pituitary tumour is performed by an endocrinologist, a doctor who specialises in hormones. Sometimes, patients may be seen in the first instance by a number of healthcare professionals depending on their symptoms eg eye doctors (ophthalmologists), neurologist (headaches, dizziness), before being referred to an endocrinologist. After assessment of a patient's symptoms and a careful clinical examination, one of our endocrinologists will arrange some blood tests to measure levels of the various pituitary hormones.



Sometimes more complex blood tests will need to be performed, where patients may be given an injection or a sugary (glucose) drink before further hormones are measured. These complex endocrine tests are carried out in our dedicated Clinical Investigation Unit.

The best type of scan to study a pituitary tumour is called an Magnetic Resonance Imaging (MRI) scan. This involves lying still on a bed in a long tube for up to an hour. If the scan suggests that the tumour may be touching the nerve supply to the eyes, we will also ask you to have a test of your visual fields in the eye clinic.

### **What happens if I have a pituitary tumour?**

Pituitary tumour patients are discussed at our weekly pituitary multidisciplinary team meeting. This ensures that all the healthcare professionals involved in the care of these patients discuss the best way to manage their pituitary condition and a clear treatment plan is made for each patient.

Treatment options depend on the type of pituitary tumour and how big it is.

- Prolactinomas usually do not need any surgery, since they respond very well to medication.
- Patients with pituitary tumours causing Cushing's disease or acromegaly are usually offered pituitary surgery. This is performed by one of our dedicated, experienced pituitary surgeons. Usually, the tumour can be removed by a trans-sphenoidal approach which means that the surgeon accesses the pituitary tumour by going up the nose through one of the facial air spaces behind the nose (sphenoid sinus).
- Sometimes, large tumours may interfere with the normal secretion of the pituitary hormone prolactin, causing levels of this hormone to be elevated. If this is the case, you may require regular medication to lower blood prolactin levels back to normal.

Where possible, the aim of pituitary surgery is to remove the tumour and therefore prevent further pituitary hormone over-production. If the tumour involves other structures and cannot be totally removed, you may be offered additional treatment, including medication and radiotherapy (high energy x rays).

### **How will I be monitored?**

Your follow up care depends on the type of tumour, but generally will involve clinical review in endocrine clinic, further blood tests, MRI scans and visual field assessment.

Sometimes, a pituitary tumour can be associated with underproduction of pituitary hormones, either due to the size of the tumour itself, or as a consequence of surgery or radiotherapy. You will be monitored for this regularly in endocrine clinic, and specific blood tests may be performed to assess your pituitary hormone production.