

## Neurosurgery

# Pituitary tumours

Most pituitary tumours are non-cancerous (benign). They are often called adenomas and are usually slow growing.

The pituitary is a small oval-shaped gland found at the base of the brain below the optic nerve. The gland releases hormones that control other glands in the body, such as:

- growth hormone - which controls growth
- prolactin - stimulating milk production after childbirth
- ACTH - stimulates the adrenal glands to produce hormones
- TSH - stimulates the thyroid gland
- FSH and LH - influence the production of hormones from the ovaries and testes
- ADH - controls the concentration of urine
- Oxytocin - stimulates the contraction of the womb in childbirth and the production of milk for breast feeding

## Symptoms

Most of the symptoms are a result of a hormone imbalance and can take a long time to develop.

Prolactin-releasing tumours are most common. These tumours result in an absence of monthly periods and production of breast milk. Infertility can be common in both men and women and men may experience impotence.



## Patient Information

Tumours releasing the hormones FSH or LH are rare. These would cause infertility.

Tumours release excess growth hormone may cause a condition called gigantism or acromegaly. This is noticeable by the enlargement of the hands and feet.

Tumours releasing ACTH can cause symptoms such as weight gain, increased facial hair growth and depression.

If the levels of the hormone ADH are disrupted, this can cause diabetes insipidus. The main symptoms of diabetes insipidus are passing large amounts of urine and being continuously thirsty.

Pituitary adenomas can cause pressure on the optic nerve. This can lead to problems with vision and cause headaches.

## Diagnosis

### Blood test

If large amounts of hormones are detected in the blood, more tests may be arranged, such as a:

- CT brain scan
- MRI Brain scan
- Eyesight check with Visual Field charting

If you have a pacemaker, you cannot have an MRI scan. If you have any other metallic implant, inform the doctor of this well before the test.

The scan will show the exact position of the tumour.

## Patient Information

### Treatment

Treatment is planned for each individual. There are different types of treatment, including surgery, medicines, and radiotherapy.

#### Surgery

This is a common treatment for pituitary tumours. Your surgeon aims to remove most of the pituitary gland.

If the pituitary gland does not recover after surgery, medicine is prescribed to replace missing hormones. This is not a major problem and is usually managed by an endocrinologist.

#### Medicines

Some medicines can be given to shrink the tumour. The medicine depends on the hormones being released. For example, a prolactin-releasing tumour can be treated with bromocriptine or cabergoline.

#### Radiotherapy

This is the use of high energy X-rays to destroy tumour cells.

### Results

The results of surgery depend on the size of the tumour.

- If the tumour is 1cm in diameter, about 9 in 10 people are cured
- If the tumour is less than 2cm, about 8 in 10 people are cured
- If the tumour is more than 2cm, between 4 and 5 in 10 people are cured

### More information

Pituitary Foundation: 0845 450 0375

Or contact Mr Shad's (consultant) secretary on 024 7696 5208.

## Patient Information

This leaflet gives you general information about your treatment. The details might vary to meet your individual medical needs. Always follow your consultant's advice.

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