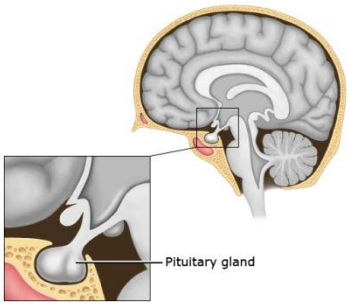
# ACROMEGALY

Acromegaly is the medical name referring to the condition caused by excessive growth hormone production. Growth hormone is normally produced by the pituitary gland. The pituitary gland is located below the brain in the middle of the head. It is not part of the brain but is an endocrine organ (gland). It is the "master gland" and produces multiple hormones which control other glands such as the thyroid, adrenal glands, ovaries in women and testicles in men.

Acromegaly is rare (only 3-4 cases per million people per year are diagnosed).




**Signs & Symptoms**

Growth hormone stimulates the production of another hormone called Insulin-like Growth Factor-1. It stimulates growth and metabolism of skin, bone and soft tissues such as cartilage and other soft tissues. Signs and symptoms of acromegaly include:

- Enlargement of hands & feet. Ring size may increase and shoe size may increase
- Enlargement of head – hat size may increase
- Protrusion of the jaw
- Splayed teeth
- Overgrowth of soft tissues in the back of the throat causing snoring and occasionally sleep apnoea, in which the sleep is interrupted by intermittent obstruction of the airway, causing airflow to stop temporarily
- Enlargement of organs, such as liver and spleen
- Diabetes (elevated blood sugar levels)
- High Blood Pressure
- Excessive sweating
- Arthritis
- Long term untreated acromegaly is associated with an increased risk of tumours, such as benign (non-cancerous) bowel polyps and uterine fibroids

**Causes**

The most common cause of acromegaly is benign tumours of the pituitary gland, known as adenomas. If the adenoma of the pituitary is large, it may cause pressure effects on the rest of the pituitary gland (see info on Panhypopituitarism) as well as loss of vision in the peripheral visual fields

of both eyes. This is due to upward pressure on the optic nerves, the main nerves responsible for vision.

**Diagnosis**

Acromegaly is diagnosed using blood tests, and possibly a glucose tolerance test measuring growth hormone (fasting blood glucose levels and growth hormone levels are checked, then a glucose load is given orally, and then blood glucose and growth hormone levels are checked again after 1 and 2 hours). Growth hormone production should be suppressed after a glucose load is given. If its production continues and is not suppressed, it suggests acromegaly.

MRI of the pituitary is likely to be required to visualise the pituitary gland/ check if adenoma is present.

**Treatment**

Treatment is individualised in each case and depends on levels of growth hormone, complications of acromegaly and size of the adenoma. The goal of treatment is to lower levels of growth hormone and IGF-1 to normal. This results is gradual resolution of complications of acromegaly. Treatment may include:

- Surgery.
- Medications eg. Somatostatin analogs or Dopamine agonists
- Radiotherapy