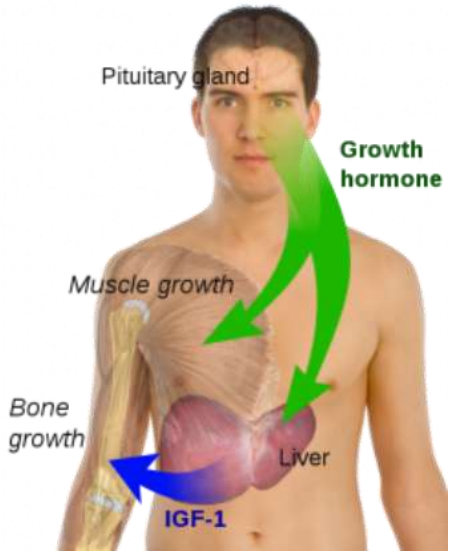
Information for patients with Acromegaly

In children and adolescents, growth hormone controls growth and development. In adults, growth is complete, but GH remains important for maintaining normal energy levels, muscle strength, metabolism and general well being.

In children, a pituitary tumour making too much GH causes **gigantism**, in which affected children grow excessively tall. In adults, too much GH from a pituitary tumour causes a condition called **acromegaly**. Adults with high GH don't grow tall in the way children do, but can develop other symptoms.

What are the symptoms of acromegaly?

- Headache
- Sweatiness
- High blood sugar (diabetes)
- High blood pressure
- Tingling of the fingers
- Increase in size of hands and feet (e.g. rings and shoes don't fit properly any more)
- Altered facial appearance (e.g. more prominent nose, spaces between teeth)
- Excessive snoring



In addition to symptoms due to high GH levels, patients can also describe altered vision due to the pituitary tumour itself pressing on the nerve supply to the eyes or symptoms of an underactive pituitary gland.

How is acromegaly diagnosed?

Growth hormone tells the liver to make a special protein called insulin-like growth factor-1 (**IGF-1**), which with GH, is involved in certain aspects of growth and metabolism. Measuring a high IGF-1 in the blood can be a helpful screening test for acromegaly. A special test called an **oral glucose tolerance test** (OGTT) is performed to confirm the diagnosis of acromegaly. This involves drinking a sugary drink and measuring GH levels at intervals for a few hours afterwards. Normally, blood GH levels will fall after taking this sugary drink. However, in patients with a tumour making too much GH, GH levels will not fall and may even rise.

How is acromegaly treated?

The aim of treatment in acromegaly is to normalise levels of GH and IGF-1 in the blood. There are several treatment options and these vary, often according to the size of the pituitary tumour at the time of diagnosis. Patients with acromegaly often present when the tumour is quite large and therefore, the pituitary surgeon is unable to remove all of the tumour tissue. If that is the case, and assessment after surgery shows that your blood levels of IGF-1 and /or GH are still higher than normal, you may be offered medical treatment (tablets and/or injections) or radiotherapy (high energy x ray treatment). With pituitary radiotherapy, this can take several years to take effect and so usually, patients take medical treatments to improve blood IGF-1 and GH levels whilst we wait for this.

What are the types of medical treatment?

- Dopamine agonists eg cabergoline (tablet)
- Somatostatin analogue eg octreotide, lanreotide (injection usually given every month)
- GH receptor antagonist eg pegvisomant (once daily injection)

Sometimes, due to the size of the tumour, or following surgery or radiotherapy, the pituitary gland may not make enough of the other pituitary hormones. We will monitor you regularly for this. If we identity this to be the case, start you on medications to replace these hormones.