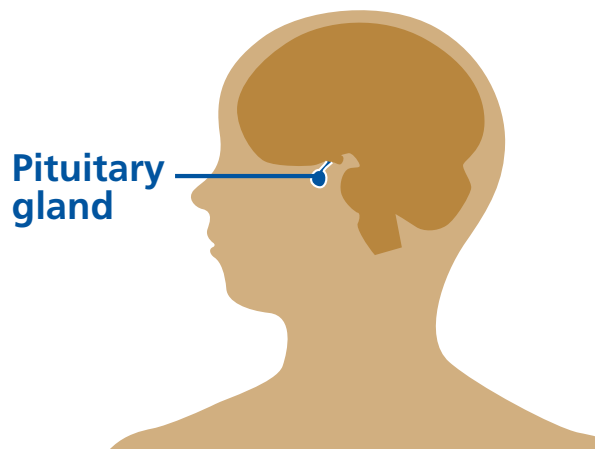




Glucagon Test

This leaflet explains about the glucagon test and what to expect when your child comes to Great Ormond Street Hospital to have one.



What is a glucagon test?

The pituitary gland, at the base of the brain, produces growth hormone. This is a “chemical signal” which stimulates normal body growth and development. Growth hormone is only released when blood sugar levels are relatively low. The glucagon test helps us to find out how well the pituitary gland is working.

The test itself lasts for four hours, but you will probably be asked to bring your child in at 8.30am and will then be able to take them home later in the day.

Why is it needed and are there any alternatives?

Your child needs this test to check whether their pituitary gland is releasing the correct amount of growth hormone, and it is the only way to do this.

What happens before the test?

You will already have received information about how to prepare your child for the test in the ‘Welcome to our hospital’ booklet and your admission letter. If the doctor has given you tablets, your child should take them each morning for three days before the test. Tablets are not necessary for all children. Your child will not be able to eat or drink anything other than water from midnight the night before the test. It is important to follow these instructions, or your child’s test may need to be delayed or cancelled.

The doctors and nurses will explain about the test in more detail, discuss any worries you may have and ask you to sign a form giving your consent (permission) for your child to have the test. If your child has any medical problems, particularly allergies, please tell the doctors about these. Please also bring in any medications your child is currently taking.

Your child will need to have a cannula (thin, plastic tube) inserted into a vein, so that blood samples can be taken more easily. A nurse will apply some local anaesthetic cream first so that the skin is numb. If your child is over five years old, he or she may like to have a cold numbing spray before the needle.

What does the test involve?

Your child will not be allowed to eat anything during the test, and will only be allowed to drink water. It is important to follow these instructions, otherwise the test will need to be stopped and repeated at another time.

The test starts when the nurse takes the first small sample of blood from the cannula, and gives your child an injection of glucagon into his or her thigh. This injection raises their blood sugar levels.



Your child's blood sugar level will then be checked every half hour by taking a small sample of blood from the cannula. This will continue for three hours before the final test is taken. During this time, your child will need to stay on the ward so that the nurses can monitor him or her.

What happens afterwards?

Once the nurses have taken the final blood sample, your child will be able to eat and drink as usual. The nurses will give them a choice of food and drink, to replenish their sugar supplies.

Your child will need to stay on the ward for an hour after eating so that the nurses can continue to check the blood sugar level. Once it has returned to normal, the nurses will remove the cannula and you will be able to take your child home.

Are there any risks?

There is a very small risk that your child's blood sugar level could drop to a dangerously low point, but as he or she will be closely watched on the ward, this is unlikely to happen. The nurses will stop the test if they are at all concerned about your child.

Your child may feel tired and miserable during the test because he or she will not be allowed to eat as usual. It is important to continue the test so that we can get accurate results. However tempting it is, giving your child anything other than water will mean the test will need to be stopped and done again at a later date.

There is a small risk that your child's blood sugar level could fall when you get home, especially if he or she is refusing food and/or vomiting. This is called 'rebound hypoglycaemia'.

Signs of hypoglycaemia include:

- vomiting
- irritability
- sweating
- pallor
- change of mood or behaviour
- tiredness
- generally not being well

Seek medical advice or go to your local Accident and Emergency Department if your child has any of these symptoms of hypoglycaemia.

You can prevent rebound hypoglycaemia by giving your child regular carbohydrate snacks and sugary drinks to refill his or her energy stores. It is important to give a high carbohydrate meal for tea-time, such as pasta, rice, bread, potatoes or pizza, as well as a milky, sugary drink with a biscuit before bedtime.

How long will it take to get the results?

It can take six to eight weeks for the laboratories to analyse your child's blood samples as there are so many chemicals to check. Your child's test results will be given to you at your next outpatient appointment at the hospital. However, if there is a need for your child to start on treatment before the appointment, the hospital will contact your GP.

If you have any questions, please telephone Kingfisher Ward on 020 7813 8221. At weekends, please call the switchboard on 020 7405 9200 and ask for endocrine doctor on-call, stating your child has had a glucagon test.