



# Glucagon Test

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**This leaflet is for parents and carers and explains what to expect when your child is recommended to have a test to find out how much growth hormone their pituitary gland is producing.**

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## **Why does my child need this test?**

This test helps us find out how well your child's pituitary gland is working. The pituitary gland is a pea-sized gland attached to the base of the brain. It makes and releases important hormones including growth hormone, which is essential for normal growth and development. Growth hormone levels vary throughout the day so can be difficult to measure. The role of glucagon in this test is to stimulate growth hormone in your child's body, which we can then measure. Glucagon is a hormone that helps regulate blood sugar levels. However, in this test, it is used to check whether the pituitary gland is making enough growth hormone.

## **Does my child need to do any preparation before this test?**

Your child will not be able to eat or drink anything other than water from midnight the night before the test. However, we do encourage them to drink water frequently. Some children may need to take a tablet each morning for three days before the test. This will be discussed with you by the doctor or nurse caring for your child in more detail, if required.

## **What does the test involve?**

The glucagon test takes several hours to complete. Please attend Kempton Day Bed Unit on Level 3 Centre Block at the Royal Berkshire Hospital at 8am. Your child will need to have a cannula (a small plastic tube) inserted into a vein in their arm or hand before the test starts. This is so that blood samples to be taken from the cannula at specific times during the test. Your child will be offered a local anaesthetic cream or a cold spray to help numb the skin. Local anaesthetic cream takes about 45 minutes to work. Once the cannula is in place, the first blood sample is taken and your child will be given an intra-muscular injection of glucagon, usually into their thigh. Levels of growth hormone are then measured every 30 minutes for 3 hours from blood samples taken from the cannula. Your child will not be allowed to eat anything during the test but can drink water.

## **What shall I bring?**

Some children find it reassuring if they can bring something familiar from home, such as a comfort toy, book or iPad. We also have an amazing Play Team, who can be involved in your child's care; they will be able to provide a range of suitable toys and activities. Please also bring in any medication that your child is currently taking.

## Side effects

Your child will need to remain on Kempton ward throughout the test, as their blood sugar level will drop. Some children may feel tired, irritable or drowsy and may experience mild nausea or vomiting. This is closely monitored by the nurse and doctor looking after your child. Your child will be encouraged to drink water during the test. It is important to continue the test until results are obtained. However, the test will be stopped if your child is not coping well during the test.

## After the test

Once the last blood sample is taken, your child can eat. We can provide toast or cereal for them, or you can bring in your child's favourite sandwich or snacks. They will need to stay on the ward for an hour or so after the test has finished so the nurse can continue to check your child's blood sugar levels. Once these is normal and your child feels well, the cannula will be removed and you will be able to take your child home.

## When you get home

Your child should spend the rest of the day quietly and not participate in any sports or strenuous activities. They may feel sleepy. We advise them to eat a carbohydrate rich meal like rice, bread, potatoes, pizza or pasta at teatime. There is a small risk that yours child's blood sugar level could drop again. If there are worrying symptoms, such as vomiting, sweating, paleness, generally not being well, we advise you to seek medical attention immediately. They should be back to normal the following day.

## Results

The doctor will contact you with the test results within a few weeks. If the glucagon test indicates that your child is not producing enough growth hormone, a second test may be required. You will be given the opportunity to discuss growth hormone treatment with the paediatrician (doctor) and the nurse can show you the different growth hormone injection devices available.

## Contacting us

You can contact the paediatric endocrine nurse on 07900 662 522 Monday-Friday or the Clinical Admin Team on 0118 322 7531 Option 2 or email [rbb-tr.cat7@nhs.net](mailto:rbb-tr.cat7@nhs.net)

To find out more about our Trust visit [www.royalberkshire.nhs.uk](http://www.royalberkshire.nhs.uk)

**Please ask if you need this information in another language or format.**

RBFT Paediatric Unit, January 2025.

Next review due: January 2027.