Patient information factsheet

Glucagon test

Your doctor has recommended that you have a glucagon test. This factsheet aims to answer some of the initial questions you may have about what's involved. If you have further concerns or would like more information, please speak to your healthcare team.

What is a glucagon test?
The glucagon test is an investigation which may be performed following pituitary gland surgery, or if we suspect that your pituitary gland is not working properly. The pituitary gland is a small, pea-sized gland located below the brain, behind the bridge of the nose. It produces a lot of the body's hormones (chemical substances that help control and regulate processes in the body).

The test checks whether your pituitary gland is working normally, by measuring whether your body is able to produce enough growth hormone and cortisol (steroid hormone) when required.

Growth hormone is produced by the pituitary gland. It’s a ‘chemical signal’ which helps the body to grow and repair. As children we produce large quantities to grow, but as adults we require smaller amounts for wellbeing.

Cortisol is a steroid hormone. It’s produced by the adrenal gland (near the kidneys) in response to a hormone released by the pituitary gland. In times of illness, your body produces greater amounts of cortisol than usual. If your body is unable to produce enough cortisol, you may not be able to cope with illness and could become very unwell.

Preparation for the test
Advice regarding your medication

If you are taking:
• Steroid tablets: you will need to miss your dose the evening before and morning of your test, however this must be discussed with your endocrine doctor first.
• Steroid creams or inhalers: please contact the endocrine nurse (number over the page) for further instructions as you may need to stop using these medications for a short time if possible.
• Other medications: you can take your other regular medication as normal. Please bring all your medication with you.

If you are female
• You may need to stop oestrogen therapy including the contraceptive pill and HRT (hormone replacement therapy) for six weeks before your test as they can affect the results.
• If you stop taking the contraceptive pill, you must use alternative contraception if you wish to avoid pregnancy. Please discuss this with your endocrine nurse or doctor.

General advice to help you prepare
• The test will last for around four hours. You will be required to stay at the hospital for this time in order to give regular blood samples.
• Do not eat or drink anything apart from water after midnight before the test.
• If you have diabetes, please telephone the endocrine nurse before your test for advice about altering your medication.
• Bring something to read or listen to as there will be periods of waiting between blood tests.
• The test will be carried out by an endocrine nurse specialist who will be able to answer any questions you may have before the test begins.

**During the test**
A small, thin tube called a cannula will be inserted into a vein in your arm or hand. This allows your nurse to take blood samples directly from the cannula without further use of needles.

When the cannula is inserted, a blood sample for growth hormone, cortisol and glucose will be taken. We will then give you an injection of glucagon into the muscle of your upper thigh. If you weigh over 90kgs (14st) you may require two injections. Four further blood samples will be taken at 90, 120, 150 and 180 minutes after the glucagon injection.

**Side effects**
A common side effect of this test is feeling sick and occasionally vomiting. You may be given medicine to help with this if required.

**After the test**
When the test has finished, your cannula will be removed and we will give you something to eat and drink. You will then be allowed home.

**Results**
Results will either be sent to you by letter/a phone call or discussed with you at your next clinic appointment. We will also send a letter to your GP.

**Further information**
Please contact the endocrine nurse specialist if you require more information or if there is anything you do not understand. Please note however that this is not to discuss diagnosis. If you have a query about your diagnosis, talk to your doctor at your next clinic appointment.

**Contact the endocrine nurse specialist:**
Telephone: 023 8120 4710, Monday to Friday 8.30am to 4pm (answer phone service out-of-hours or if the nurse specialist is unavailable).

Email: endocrineneurse@uhs.nhs.uk

If you need a translation of this document, an interpreter or a version in large print, Braille or on audiotape, please telephone 023 8120 4688 for help.

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