Cortisol day curve test for Cushing’s syndrome / patients on hydrocortisone

Your doctor has recommended that you have a cortisol 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 cortisol?
Cortisol is a steroid hormone. It is produced by the adrenal glands in response to a hormone released by the pituitary gland. Hormones are chemical substances that help control and regulate processes in the body. In times of illness, your body produces greater amounts of cortisol than usual.

What is a cortisol day curve test?
The test measures your cortisol levels throughout the day. If you are currently on steroid treatment, this test will help your doctor to decide whether you are taking the appropriate amount of hydrocortisone, or if you have Cushing’s syndrome (meaning you produce an excess amount of cortisol), that it is adequately controlled.

The test will last for around six to eight hours and you’ll be required to stay at the hospital during this time in order to give regular blood samples.

Preparation for the test
You may eat and drink as normal on the day of your test. If you are currently taking hydrocortisone, please make a note of the time you take the morning tablet, as this will affect the time of the first blood test.

Please bring your tablets with you. You will need to take your other doses throughout the day as prescribed.

During the test
- The test will be supervised by an endocrine nurse specialist who will be able to answer any questions you may have. It’s a good idea to bring something to read or listen to as there will be periods of waiting between blood tests.

- A small needle called a cannula will be inserted into a vein in your arm or hand. This allows the nurse to take your blood samples directly.

- Several blood samples will be taken so that your cortisol levels can be checked at frequent intervals throughout the day.
Side effects
There are no side effects of this test but you may experience some discomfort from the cannula.

After the test
When the test is finished your cannula will be removed and you can go 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: endocrinenu@uhs.nhs.uk

Useful links
NHS Choices
www.nhs.uk/Conditions/Cushings-syndrome/Pages/Introduction.aspx