Dexamethasone-CRH test

Department of Endocrinology
Your doctor has recommended that you take this test to help with the diagnosis and the management of your condition. Please would you read this carefully and ask us about anything that is not clear or if you would like more information.

What is the purpose of the test?

This test will help us to know if you have Cushing’s syndrome. Cushing’s syndrome is a disease caused by excess cortisol production. Cortisol is a natural steroid hormone or chemical signal. It is produced by the adrenal glands, which are just above the kidneys, in response to instructions from the pituitary gland, which is a small gland beneath the brain.

How long will the test take?

The test will take about two hours. We will ask you to take some tablets at home for two days before the test.

Who will carry out the test?

The test will be carried out by an Endocrine Specialist Nurse.

What will I have to do?

We will give you a prescription for eight dexamethasone tablets (0.5 mg each). You should start taking these at 12:00 noon, two days before the test, at the following times:

- **Two days before the test**: 12 pm (noon); 6 pm; 12 am (midnight)
- **One day before the test**: 6 am; 12 pm (noon); 6 pm; 12 am (midnight)
- **Morning of the test**: 6 am

The timing of when you take these tablets is very important so that the results are accurate. It needs to be as close to the recommended times as possible.

We will ask you to come to the hospital for the test at 7.30am in the morning after you have taken the last dexamethasone tablet.
Is any drug or medicine used during the test?
We will give you eight dexamethasone tablets. Dexamethasone is a steroid tablet that reduces the production of cortisol (the natural steroid hormone). You will also be given an injection of CRH. This is a natural hormone (chemical signal) produced by the hypothalamus. The hypothalamus is part of the brain which controls hormone function by signalling to the pituitary gland. CRH stimulates cortisol production. Measuring how your hormones respond to the dexamethasone and the CRH will help us to know if you have Cushing’s syndrome.

What will happen during the test?
We will check your weight so that we know the correct dose of CRH to give to you. A nurse will use a needle to put a small plastic tube into a vein in your arm. We will use this to take blood samples and to give you an injection without the need for any more needles. After we have taken the first blood sample, we will give you an injection of CRH. Over the next hour we will measure your response to the test by taking more blood samples. After we have completed the test, you will be able to go home.

What are the possible risks or side-effects of the test?
Long-term dexamethasone treatment has many possible side-effects, but this short course of dexamethasone tablets is very unlikely to have any side-effects. If you have diabetes, you may find that your blood sugars are higher than usual whilst you are taking the dexamethasone tablets. If you have any concerns, please contact the endocrine specialist nurse.

What are the alternatives to the test?
It can be difficult to diagnose Cushing’s syndrome. A number of different tests may be necessary, including blood tests, urine
tests and scans. This varies from patient to patient, and depends on the results of your investigations. Your endocrinologist will advise you about this in more detail.

What will happen after the test?

We will send your blood samples to the laboratory for analysis. When your results are available, either the endocrine specialist nurse or your endocrinologist will discuss these with you. This will usually be at your next clinic appointment. They will advise you about other tests you might need.

Who do I contact if I have any questions?

Royal Sussex County Hospital 01273 696955
Endocrine specialist nurse Extension 4379
Princess Royal Hospital, Haywards Heath 01444 441881
Endocrine specialist nurse Extension 5660

If you have any urgent or emergency questions then your GP can advise you or they will contact the hospital on your behalf.

Patient self-help groups and further information:

The Pituitary Foundation 86 Colston Street, Bristol BS1 5BB
Website: www.pituitary.org.uk
Email: helpline@pituitary.org.uk
Support and Information Helpline: 0117 370 1320
Monday-Friday 10am-4pm
Pituitary Foundation Endocrine Nurse Helpline: 0117 370 1317
providing medical information and support
Monday 10am to 1pm; Monday 6pm to 9pm; Thursday 9am to 1pm.