Synacthen test

The Synacthen test checks how well your adrenal glands can make the steroid hormone cortisol. Synacthen is a synthetic form of ACTH (adrenocorticotropic hormone). ACTH is naturally produced in your body to stimulate your adrenal glands to make cortisol.

The ideal time to perform this test is between 8 am and 10 am in the morning. The test is done at the Endocrine Test Centre. The Endocrine Test Centre is on the ground floor of the Christchurch Outpatients building, 2 Oxford Terrace. Please call (03) 364–0934 to make an appointment.

Preparation

You can eat and drink normally on the morning of the test. You can also take all your normal medications except the following:

- hydrocortisone
- dexamethasone
- prednisone
- cortisone.

These medications are all steroids. Ideally you shouldn’t take them for 24 hours before the test. You mustn't take them for at least eight hours before the test.

If you aren't sure if you can go without these medications, check with your doctor first.

Bring your steroid medication to your appointment. You can take your normal steroid dose straight after the test has been completed.

Procedure

A cannula (small plastic tube) is inserted into a vein in your arm. This reduces your discomfort. The blood samples are taken and the Synacthen is given through the cannula. If it isn't possible to insert a cannula, blood samples are taken as usual and Synacthen is injected into your arm muscle. The procedure is:

- a 4 ml blood sample is taken
- you are given Synacthen
- another 4 ml blood sample is taken 30 minutes later.

Risks

The test is performed daily in the Endocrine Department. Occasionally, some patients have minor reactions. These include minor pain or bruising at the injection site, nausea, vomiting and flushing. As with any medication, there’s a small risk of an allergic reaction. If you've previously had a Synacthen test and had a bad reaction, please tell the doctor or nurse before the test is done.

Developed by the Hormone Measurement and Consultation Centre, Endocrine Department, Christchurch Hospital. Adapted by HealthInfo clinical advisers. Last reviewed March 2020.