

## Endocrinology

# Short synacthen test

Your doctor has recommended that you have a short synacthen test to check how well your body can produce cortisol.

Cortisol is an essential steroid hormone which is required to keep you healthy and to enable your body to respond to stress and illness. Cortisol also has effects on your immune system, blood pressure and blood sugar levels.

Cortisol is produced by the adrenal glands and this is controlled by the pituitary gland. The pituitary gland produces a hormone called adrenocorticotrophic hormone (ACTH) that stimulates the adrenal glands to make cortisol. Low cortisol levels can indicate a problem with either the pituitary gland or the adrenal glands.

## Preparation for the test

- If you are taking **steroid medications** orally (e.g. hydrocortisone, prednisolone, plenadren or dexamethasone), you will need to stop these medications for at least 24 hours prior to the test. Please contact the endocrine unit to discuss further if this is not possible.
- If you are taking **medications containing oestrogen** (e.g. contraceptive pill or HRT), you will need to stop these medications for at least 6 weeks prior to the test as they can affect the results. If you are taking the oestrogen pill for contraception, it is essential that you consider alternative forms of contraception. If you are using an oestrogen patch, this can be continued as it will not affect the results of your test. Please contact the endocrine unit to discuss further if you have any queries.
- If you are using **steroid creams or inhalers**, please contact the endocrine unit for further instructions as you may need to stop using these medications for a short period of time prior to the test.
- You can take your other regular medications. Please bring all of your medications with you when you attend for your test.
- The test will last for approximately 2 hours. You will be able to drive home afterwards.



## What will happen during the test?

- You will be introduced to the doctor or nurse performing the test, who will provide an explanation as to what to expect during the test and obtain your informed consent.
- You will be seated for the duration of your test.
- A cannula, which is a small tube used to take blood samples, will be inserted into a vein in your arm, and an initial blood sample will be taken to measure the baseline level of ACTH and cortisol.
- You will then be given an injection of synthetic ACTH (synacthen) into the muscle in your buttock or arm. Synacthen stimulates your adrenal glands to produce cortisol.
- Further blood samples will be taken from the cannula at 30 minutes and 60 minutes after synacthen for measurement of cortisol levels. A rise in cortisol levels should occur after synacthen if the adrenal glands are working normally.

## What will happen after the test?

- You will be able to take your steroid medication as usual immediately after the test.
- Once the test is completed, the cannula will be removed and you will then be able to go home.
- Your results will be reviewed by the endocrinology doctor.
- You do not have to contact the department for your test result. We will inform you and your GP of your results and any changes to treatment or medication by letter.
- If necessary, you will be called back to clinic to discuss the result, especially if you need to start on any treatment.
- Sometimes it is also necessary for us to contact you by telephone, so please provide us with your home and mobile telephone numbers when you come in for your test.

## Are there any risks or complications?

The short synacthen test is very safe and it would be unusual for you to experience any side effects. As it involves insertion of a cannula and an injection into the muscle, you may develop redness or bruising at the site of injection or cannulation. However, you should not have any lasting side effects after the test. There is a risk of allergic reaction with this test, although this is rare. Please report any previous allergic reactions that you have had to the doctor or nurse.

Sometimes it is also necessary for us to contact you by telephone, so please provide us with your home and mobile telephone numbers when you come in for your test.

**Please remember that the timing of endocrine tests is important.** Please attend at the time specified on your appointment letter. If you are unable to keep your appointment please contact the department and we will rearrange it for you.

## Contacts

If you have any queries:

Phone the endocrine nursing team on **0161 446 3479**  
or email: **[the-christie.endocrinology@nhs.net](mailto:the-christie.endocrinology@nhs.net)**

If you need information in a different format, such as easy read, large print, BSL, braille, email, SMS text or other communication support, please tell your ward or clinic nurse.

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For information and advice visit the cancer information centres at Withington, Oldham, Salford or Macclesfield. Opening times can vary, please check before making a special journey.



Contact The Christie Hotline for  
urgent support and specialist advice  
**The Christie Hotline: 0161 446 3658**  
Open 24 hours a day, 7 days a week