

Synacthen tests



Information for patients Endocrinology

What is a synacthen test?

A synacthen test is used to check that your adrenal glands are working properly. Your adrenal glands produce a steroid hormone called cortisol. The test shows how much cortisol your body produces.

How does the test work?

Adrenocorticotrophic hormone (also known as ACTH or corticotrophin) stimulates your adrenal glands (situated just above the kidney) to produce cortisol. If your glands are working properly your adrenal glands should respond by producing more cortisol. Synacthen is a synthetic form of ACTH that we use to stimulate your adrenal glands.

The synacthen tests measures how much cortisol you produce after receiving synacthen.

Where possible it is best to perform the test in the morning as this is when normal cortisol production is high.

Why is cortisol important?

Adrenal hormones including cortisol are vital for maintaining your health. They perform many functions including:

- Regulating your blood pressure
- Regulating the immune system
- Helping your body cope with stress
- Helping to regulate your blood sugar levels by supporting the release of insulin

What does the test involve?

The test involves attending the Endocrine Unit at the Royal Hallamshire Hospital for an hour in the morning. You will be assessed by a nurse before the test starts.

1. A small needle will be used to insert a fine hollow plastic tube (a cannula) into a vein in your arm. This will be used to provide a blood test to measure the amount of cortisol you are producing.
2. An injection of synacthen will be given into the cannula to stimulate the release of cortisol from the adrenal glands.
3. 30 minutes after the synacthen injection a final blood sample is taken to measure your body's production of cortisol.

Is there anything I need to be aware of before having the test?

If you are taking any type of steroids (oral, inhalers, creams, nasal, intraarticular etc.) or pain killers described as opioids please **do not** take them on the evening before the test and the morning of the test. This includes:

- codeine
- morphine
- fentanyl
- buprenorphine
- tramadol
- oxycodone

You will be able to take your medication after completing the test so please bring your medications with you to the unit.

If you are on oestrogens, pregnant or breast feeding, please do inform us as we may need to consider measuring salivary cortisol.

If you are on steroids for asthma we may only take the first blood sample but it is still necessary not to use any steroid inhalers on the morning of the test.

If at any time before arriving on the ward for your test you feel unwell, take your normal medication and inform the admitting nurse on arrival.

Are there any risks with this test?

The synacthen injection does not usually cause any problems or side effects.

Some people may experience slight nausea or dizziness following the injection but this usually only lasts for a few minutes and does not require any treatment.

The test is suitable for women who may be pregnant but please inform the nurse if this is a possibility.

What if I have any questions or concerns?

If you have any questions or concerns about the test, or if the date is inconvenient, please telephone the Endocrine Unit, Royal Hallamshire Hospital on **0114 271 3714**.



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