

# The short synacthen test

Information and advice for parents and carers

## *Paediatrics*

### **What is the short synacthen test?**

The short synacthen test measures the amount of cortisol your child's body produces.

Cortisol is a hormone that is released by the adrenal glands, which sit at the top of the kidneys. Hormones are chemicals which carry messages to different parts of the body through the bloodstream. Cortisol is needed to maintain good blood pressure, control blood sugar levels and for general wellbeing.

When we experience physical or emotional stress, the pituitary gland in the brain produces a hormone called ACTH. ACTH travels in the bloodstream to the adrenal glands and makes them produce cortisol. The cortisol then travels to our organs and tissues where it has its effect.

Synacthen is a medicine which has a similar effect as ACTH; stimulating the adrenal glands to make cortisol.

### **What is the benefit of the short synacthen test?**

The benefit of this test is that it will tell us if your child is making enough of the hormone cortisol. This will help your child's consultant to plan their treatment.

### **What are the risks of having the short synacthen test?**

There is a risk that your child may get a headache, facial flushing or feel a bit sick when the synacthen is given. However these symptoms are rare and do not last for long.

### **What are the risks of not having the test?**

If your child does not have this test then their consultant will not be able to find out if your child is making enough cortisol and plan treatment.

### **Are there any alternative tests my child can have?**

There are no recommended alternatives to this test.

### **Preparing for the test**

Your child can eat and drink as normal before the test. If your child is also having another test you will be told if they need to stop eating and drinking for this.

You may be asked to miss some doses of your child's steroid medication for 24 hours, but we will tell you if this is necessary because it depends on the type of medication your child takes.

You should explain the test to your child before they come to the hospital so they understand what will happen.

We have a playroom but please feel free to bring your child's favourite toy or comforter with you.

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### How the test is performed

Please arrive on Priory Ground Ward at Sandwell General Hospital at 8.30am. You will have to spend the full morning and early afternoon in hospital. If your child is having any other test at the same time you may have to stay longer.

When you arrive on the ward the nurse will check a few details like your child's name, address etc. They will also ask about your child's current state of health, and whether they have any medical problems, or have recently had or been in contact with anyone who has had an infectious illness. This is to check your child is well enough to have the test. The nurse will also give you the opportunity to ask any questions you may have about the test.

Do not worry if your child becomes upset during the test, this is normal and will depend on your child's age and how much they understand about what is happening. Your child can eat and drink as normal during the test.

This is what will happen:

1. Your child's height and weight will be measured so we can work out the right amount of synacthen to give.
2. 'Magic cream' (called Emla) will be placed on the back of your child's hands and on the inside of their elbows. This is a local anaesthetic cream which numbs the area so that it won't hurt when they have a cannula (small plastic tube) put in. Magic cream takes about 1 hour to work so we will place a clear dressing over the cream to keep it in place.
3. Your child will have their cannula put in by a doctor. The cannula will be put into one of the areas that have been numbed either back of their hand or inside of their elbow. Your child may get anxious or upset when the cannula is being inserted. It will help if you stay with them for comfort.
4. Your child will then need to play quietly or rest for 30 minutes.
5. The doctor will then take a small sample of blood from the cannula.
6. The doctor will give the synacthen into the cannula.
7. After 30 minutes and then again after 1 hour the doctor will take another sample of blood from the cannula.
8. The blood samples will be sent away for testing in the laboratory.

### After the test

You will be able to go home once your child has had their cannula removed. Your child should eat and drink as normal when they go home.

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### **How do I get the results of the test?**

Your child's doctor will discuss the results of the test with you at your child's next outpatient appointment.

### **How to find us**

The test will be carried out on Priory Ground Ward at Sandwell General Hospital. This is on the ground floor of the main hospital in the Children's Unit. You can ask for directions at the main reception desk near the main entrance to the hospital. Staff will be happy to direct you to where you need to go.

#### **Address:**

Sandwell General Hospital  
West Bromwich  
West Midlands  
B71 4HJ

### **Contact details**

If you have any questions or concerns about the short synacthen test please contact:

**Dr Agwu - Consultant Paediatrician**  
0121 507 3358 (secretary)

### **Further information**

For more information about our hospitals and services please see our websites [www.swbh.nhs.uk](http://www.swbh.nhs.uk) and [www.swbhengage.com](http://www.swbhengage.com), follow us on Twitter @SWBHnhs and like us on Facebook [www.facebook.com/SWBHnhs](http://www.facebook.com/SWBHnhs).

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### Sources used for the information in this leaflet

- Patient UK Professional Reference, 'Pituitary function tests', June 2011
- 'Diagnostics of Endocrine Function in Children and Adolescents', M.B. Ranke, 2003

If you would like to suggest any amendments or improvements to this leaflet please contact the communications department on 0121 507 5495 or email: [swb-tr.swbh-gm-patient-information@nhs.net](mailto:swb-tr.swbh-gm-patient-information@nhs.net)



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