NHS
Scarborough Hull York
Pathology Service

Sweat Tests

Information for patients, relatives and carers

Department of Clinical Biochemistry

ⓘ For more information, please contact:

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Providing pathology services at:
York and Scarborough Teaching Hospitals NHS Foundation Trust
Hull University Teaching Hospitals NHS Trust

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This booklet has been produced to provide information for people who have been referred for a sweat test. In addition, it explains what the results may mean and how you can get the results of your test.

What is a sweat test?

A sweat test measures the amount of salt (as chloride) that is in the sweat. To do this, a small amount of sweat is collected from the lower arm.

Why does this need to be carried out?

The test is carried out on children or adults:

- Who have recurrent chest infections.
- Who have frequent and unexplained pale stools.
- Who have problems gaining weight or growing properly.
- As part of a screening programme.
- Other less common indications.

The test is performed to determine if a condition called Cystic Fibrosis (CF) is the cause. People with CF have a high amount of salt in their sweat. A positive test result may mean that the child, or you (if you have had the test) has CF, but a final diagnosis will take into account other symptoms, clinical findings and test results.
A normal result can be helpful in ruling out CF.

Who performs this test?

A registered and trained Biomedical Scientist will carry out the test in one of the following locations:

- The Child Assessment Unit at York Hospital
- The Outpatient Department in York Hospital (adults).
- The Children's Outpatient Department at Scarborough Hospital (children)
- The Paediatric Outpatient department at Hull Royal Infirmary (children).

How do I prepare for the test?

No preparation is required, however you must stay with children for the duration of the test. Please allow one hour for the procedure to be carried out.

Please bring a warm jacket or jumper with loose sleeves. You may also wish to bring a favourite book or toy to entertain children during the test. Babies can be breast or bottle fed during the test.

What will happen during the test?

The test involves the following steps:

1. Special gel pads are placed on the lower arm or leg and secured in place by velcro straps. These pads are soaked in a chemical called pilocarpine, which stimulates sweat production.

2. A small electric current is passed through the pads from a battery box to further stimulate the sweating process. This is not painful, although a tingling sensation may occur. The pads are left in place for five minutes and then removed.

   There should be a red mark where the pilocarpine has stimulated the skin. This is normal and should fade within a few hours.

3. The skin is then carefully washed with pure water and dried.

4. A plastic coil is placed over the stimulated area and secured.

5. You will then be asked to wait for about 30 minutes for the sweat to be absorbed into the coil device. During that time, you (or the child) are free to read, play or eat, although salty foods such as crisps should be avoided to minimise any risk of contamination of the sweat sample with salt.

6. The coil is then removed and taken to the laboratory for analysis.

   There may be a blue spot left on the skin. This is a vegetable dye that is used to colour the sweat. It will fade with time.

Can there be any complications or risks?

There is a very little risk of complications from this test. The electric current may cause skin redness and excess sweating for a short time after the test is done.

Some people experience a tingling sensation on the arm or leg where the sweat has been collected. No needles are involved.

What are the benefits in having the test?

This test helps doctors to make a decision about whether symptoms are likely to be caused by CF. It is important to diagnose this condition as soon as possible in order to begin appropriate treatment.

Is there an alternative to having a Sweat Test?

Currently there is no alternative to having a sweat test.

What will happen afterwards?

Sweat samples are analysed in the laboratory and results are usually ready within 48 hours. They will be sent to the doctor who requested the test. They will write to you or discuss these with you during a clinic appointment and explain what will happen next.

In most cases the results will clearly show either a high (abnormal) or normal salt level in the sweat. Sometimes the results can be borderline and the test will need to be repeated. In a few cases, the test may need to be repeated for technical reasons, for example if not enough sweat has been collected. This does not mean you/your child has CF. Some doctors also like to confirm an abnormal sweat test with a second sweat test.

If a repeat test is required, this is generally performed on another day so not to cause undue distress and inconvenience for you or the child.

What if I would like further information?

If you have questions about the process of carrying out the sweat test, please contact one of the Senior Biomedical Scientists:

For York and Scarborough, please contact Rachel Navin on telephone number 01904 721312.

For Hull and the East Riding, please contact Tom Salter on telephone number 01482 607753.

If you have further questions regarding the need for a sweat test on yourself or the child, please speak to the doctor who has referred you for this test as they can give you further information.

Additional information on the sweat test procedure and what the results may mean can be obtained from the Lab Tests Online website: http://labtestsonline.org/understanding/analytes/sweat-chloride/tab/glance.

Additional information on Cystic Fibrosis may be obtained from www.cysticfibrosis.org.uk.

Tell us what you think of this leaflet

We hope that you found this leaflet helpful. If you would like to tell us what you think, please contact:
Katie Allen, Principal Clinical Scientist
Clinical Biochemistry, Hull Royal Infirmary, Anlaby Road, Hull, HU3 2JZ, telephone 01482 607716 or email Katie.allen57@nhs.net.

Teaching, training and research

Our Trust is committed to teaching, training and research to support the development of health and healthcare in our community. Healthcare students may observe consultations for this purpose. You can opt out if you do not want students to observe. We may also ask you if you would like to be involved in our research.

Patient Advice and Liaison Service (PALS)

PALS offers impartial advice and assistance to patients, their relatives, friends and carers. We can listen to feedback (positive or negative), answer questions and help resolve any concerns about Trust services.
To contact PALS:

In York or Scarborough
dial 01904 726262 or email
yhs-tr.patientexperienceteam@nhs.net

In Hull & the East Riding
dial 01482 875875 or email hyp-tr.pals.mailbox@nhs.net

Leaflets in alternative languages or formats

If you would like this information in a different format, including braille or easy read, or translated into a different language, please speak to a member of staff in the ward or department providing your care.

This leaflet was produced by Scarborough, York and Hull Pathology Services (SHYPS)

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