

Children's Services

Sweat test – information for parents

Your doctor has asked for your child to have a sweat test. At Addenbrooke's Hospital many children are screened using this test. This leaflet tells you what the test is for and what will happen during the test.

What is a sweat test?

It is a test used to exclude the diagnosis of cystic fibrosis (CF). Children born within the UK have been screened at birth for cystic fibrosis since 2007 with the heel prick test, so there is only a very small chance that your child will have cystic fibrosis.

The sweat test measures the amount of salt (usually measured as chloride) in sweat. This is done by collecting a small amount of sweat from the arm, or sometimes the upper part of the leg in a small baby.

In people with CF, there is a problem with the transport of chloride across cell membranes (how salt moves in and out of some cells in the body). This results in higher amounts of salt (chloride) in sweat, compared with those who do not have CF.

Why is it used?

If there is a family history or a possibility of CF, the sweat test is part of the special tests that help make, or exclude, a diagnosis of CF.

As part of the investigations to look for possible causes of illness, the sweat test may be done in children, and in some cases, adults, with no family history of CF, but who are having lots of chest infections, unexplained diarrhoea, or who are not putting on weight normally. In these circumstances, the test is often used to exclude a diagnosis of CF.

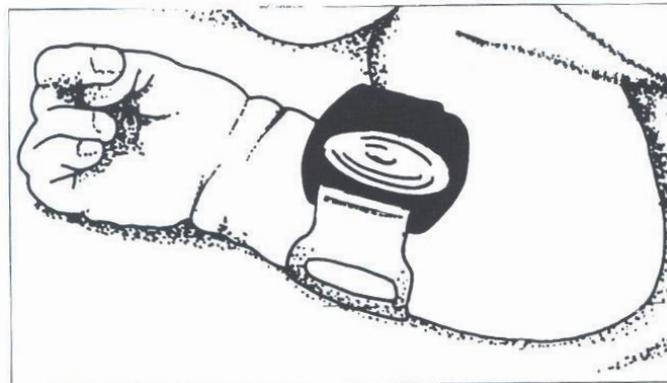
What is cystic fibrosis?

Cystic fibrosis is an inherited condition, which causes some of the glands in the body to produce thicker and stickier secretions than normal. It may increase the likelihood of your child getting chest infections. Cystic fibrosis may also affect the digestive system and make it harder for your child to absorb their food. Consequently, they might not put on weight very easily and may suffer from diarrhoea. However, some children who are affected may present with no more symptoms than an occasional chest infection, polyps (swellings) in the nose, or mild diarrhoea. The severity of the symptoms of the disease varies greatly.

What is involved in the test?

- You will be able to stay with your child throughout the test.
- Please be prepared to be at the hospital for about one hour.
- Please bring some warm clothing with you as this may help your child to sweat.

- Firstly the forearm or leg is cleaned with sterile water. Special gel pads containing a substance called Pilocarpine are placed inside two small metal discs, one negative (black), and one positive (red), and then placed on the skin. These are attached to a small metal box which stimulates the sweat glands for a period of five minutes by passing a low electrical charge between the discs.
- **There are no needles involved**; all your child may feel is a mild tickling sensation, if anything at all. Your child will need to stay still and should be encouraged not to touch the discs.
- The area where the gel pads have been is cleaned again with sterile water, dried and a collecting duct is applied to the skin. This is a small watch-like disc, which contains a coiled tube and a small amount of blue dye so we can see at a glance how much sweat is being collected. This is left in position for 25 to 30 minutes. You will be able to go and have a coffee during this time and return when the disc is to be removed.



- It is usually necessary for this procedure to be carried out on both arms, one at a time, in order to obtain sufficient sweat for the test.
- Once the collecting ducts are removed they are sent to the laboratory for analysis. The salt (chloride) within the sweat is measured and you will be informed of the result within 24-48 hours. If there is not enough sweat to give a result then the test will be repeated as soon as possible. Occasionally we do not get a conclusive result, and then the test will also need to be repeated.
- The doctor who organised the original sweat test will discuss the results with you. Please do not hesitate to ask questions at any time regarding the test.
- The area of the arm or leg which was stimulated may stay red for a few hours after the test, but this is normal and nothing to worry about. The test is very safe, and the risk of any problems is extremely small.

If you have any further questions, please contact:

CF nurse specialists on 01223 216277



We are now a smoke-free site: smoking will not be allowed anywhere on the hospital site.

For advice and support in quitting, contact your GP or the free NHS stop smoking helpline on 0800 169 0 169.

Other formats:



If you would like this information in another language, large print or audio, please ask the department where you are being treated, to contact the patient information team:

docteam@addenbrookes.nhs.uk.



Please note: We do not currently hold many leaflets in other languages; written translation requests are funded and agreed by the department who has authored the leaflet.

Document history

Authors	Children's Services
Department	Cambridge University Hospitals NHS Foundation Trust, Hills Road, Cambridge, CB2 0QQ www.cuh.org.uk
Contact number	01223 245151
Publish/Review date	January 2021/January 2024
File name	PIN0004_sweat_test_V6
Version number/Ref	6/PIN0004 / Document ID 2964