

Sweat Test

A sweat test is used internationally to assist in the diagnosis of cystic fibrosis (CF). It measures the amount of chloride (from salt) in the sweat of people suspected of having CF. People with CF have a problem with transporting salt across cell membranes. This results in a higher concentration of chloride in sweat compared to those without CF.

The sweat test is painless, simple and usually accurate, and can be done on people at any age. Some infants may not produce enough sweat to be measured at the first test and it will need to be repeated.

How is the sweat test done?

A sweat sample is collected using a sweat stimulation procedure. No needles are used; a colourless, odourless chemical and a little electrical stimulation is applied to the person's arm or leg to encourage the production of sweat. There may be a slight tingling or sensation of warmth during this part of the procedure that lasts for about 5 minutes. The sweat is then collected using filter paper, gauze or a plastic coil. This collection process usually lasts about 30 minutes and the collected sweat is sent to the laboratory for analysis to measure the chloride concentration in the sweat. The whole procedure generally takes about an hour. The arm or leg area that has been stimulated may remain red for a few hours after the test.

When is the sweat test done?

Screening for CF is part of the Australian newborn screening program (Guthrie/heel prick test). The sweat test is usually done between 4 – 6 weeks of age in babies with a positive newborn screening test. Sometimes more than one sweat test is needed.

What to do before the test

It is best not to apply cream or lotion to the skin 24 hours before the test. Babies should be fed their usual feed at the regular time. No changes need to be made to the baby's routine.

The result of the sweat test

If your baby is being tested because of the newborn screening test result, the sweat test results will be explained to you by a doctor or genetic counsellor at the CF clinic. It is important to ask when and how you can expect to receive the results when scheduling your test.

Useful Resources

- Carrier Screening Factsheet www.cfwa.org.au/wp-content/uploads/2018/08/Carrier-Screening.pdf

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