



Danbury Hospital
Department of Pathology & Laboratory Medicine
Technically Speaking

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REPRINT

THE SWEAT TEST ANSWERS TO COMMONLY ASKED QUESTIONS

Note to physicians: We have updated our list of commonly asked questions about the sweat test (originally published in December 1998). We request that you provide a copy of this information to parents when ordering this test.

Your child's pediatrician has ordered a sweat test on your child. Please review the following information before you bring your child to Danbury Hospital for this test.

Why did my pediatrician order a sweat test for my child?

Pediatricians order the sweat test in order to rule out the presence of Cystic Fibrosis (CF). CF is a relatively uncommon inherited disease that affects the lungs, digestive system and sweat glands. CF occurs in one of every 3,500 live births - on average, less than one new case of CF per year is diagnosed in the Danbury area. Based on your child's symptoms and other information, the doctor feels it is necessary to perform this test to rule out CF.

It should be emphasized that most children who are tested do not have CF.

[A good source of information about CF is the Cystic Fibrosis Foundation, a nonprofit organization based in Bethesda, MD (<http://www.cff.org/home/>.)]

What is the sweat test and what do the results mean?

The sweat test has been considered the "gold standard" diagnostic test for CF for almost 50 years. It is a simple, painless procedure in which the amount of salt in a sweat sample is measured. A low salt level is considered a negative test and indicates the absence of CF. A high salt level is considered a positive test and is consistent with the presence of CF if accompanied by clinical symptoms of the disease. "Borderline" results may also be obtained. Borderline and high results require that the test be repeated on a separate day.

What will happen during the sweat test?

Two sweat samples will be obtained from your child, one from each arm. Two small electrodes with a gel containing a chemical called pilocarpine (pronounced "pie-low-CAR'-peen") that causes sweating will be placed on the forearm. A weak electrical current will be applied to the electrodes for 5 minutes, causing the pilocarpine to move into the sweat glands and stimulate them. *The amount of electricity used is very small and harmless to the child.* The sweat from the stimulated glands will be collected into a small coil of plastic tubing for 20-30 minutes. The sweat samples will be taken to the hospital laboratory, where the amount of chloride (pronounced "KLOR'-ide"), one of the chemical components of the salt contained in sweat, will be measured using test procedures that are approved by the Cystic Fibrosis Foundation.

Will this test be painful for my child?

No, the sweat test is a painless procedure that does not involve needles or skin pricks. During the 5-minute sweat stimulation step of the procedure, your child will feel a slight “tingling” or warm sensation in his/her arm from the weak electric current applied to the electrodes. Some children may find this a little uncomfortable, but most do not complain.

How long will the test take?

The sweat stimulation and collection procedure takes about one hour or less.

How should I prepare my child for the sweat test?

No fasting or special diet is required. Ideally, your child should be well hydrated, free of acute illness or severe skin conditions like eczema, and should not be taking medications that contain mineralocorticoids (this is unusual; if unsure, ask your doctor or pharmacist). Please do not apply any creams, lotions or ointments to your child’s skin for 24 hours before the test. Dress your child in comfortable, loose-fitting clothing (preferably short sleeves) to allow easy access to the forearms. Children are allowed to drink and eat during the test (salty foods are not recommended). We also suggest that you bring one of your child’s favorite toys or books.

When is the sweat test performed and how do I make an appointment?

Sweat tests are performed by appointment only on Tuesdays between 9:00 am and noon. The doctor’s office may schedule the sweat test for your child; if not, please call (203) 797-7337 to make an appointment.

Where do I take my child to have the sweat test performed?

Sweat tests are performed at the Danbury Hospital Test Center located on the first floor of the Stroock building at 95 Locust Avenue (between the Pharmacy and the Emergency Room). It is best to park in the Red Parking Lot on Locust Avenue (free valet parking is available). It is important to be on time for your appointment. If you must cancel the appointment, please call the Laboratory at (203) 797-7337 as soon as possible.

How long will it take for the doctor to get the test results?

We will perform the sweat analysis and report the results by telephone to the doctor’s office by the end of the same day the samples are collected. Please do not call the laboratory for the test results, since we are only authorized to release these to the doctor who ordered the test.

What if I have additional questions about the sweat test?

If you have technical questions about the sweat test, please call the Danbury Hospital Clinical Chemistry Laboratory at (203) 797-7337. For questions about interpretation of sweat test results or about cystic fibrosis, please consult with your child’s pediatrician.

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