

UPDATE THE SWEAT TEST FREQUENTLY ASKED QUESTIONS

Note to physicians: This is an update of the list of Frequently Asked Questions about the sweat test (originally published in 1998, last updated in 2005). Please provide a copy of this information to parents when ordering this test on your patients.

Your child's pediatrician has ordered a sweat test for your child. Please read 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?

Doctors order the sweat test to rule out the presence of Cystic Fibrosis (CF). CF is an inherited disease that affects the lungs, digestive system and sweat glands. About 30,000 children and adults in the United States have CF. An additional 10 million more - about 1 in every 31 Americans - are carriers of the defective CF gene but do not have the disease. CF is most common in Caucasians but it can affect all races. CF occurs in about one of every 3,500 live births - on average, less than one new case of CF per year is diagnosed in the Danbury area. [A reliable source of information is the Cystic Fibrosis Foundation (CFF), a nonprofit organization based in Bethesda, MD (see <http://www.cff.org/home/>).]

Based on a child's signs and symptoms and other information, it is not uncommon for doctors to order the sweat test to rule out CF.

Most children who are tested do not have CF.

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

The sweat test has been considered the "gold standard" diagnostic test for CF for over 50 years. It is a simple, painless procedure in which the amount of "salt" (measured as chloride) 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 it is also accompanied by clinical symptoms of CF. "Borderline" results may also be obtained. Borderline and high results require that the sweat test be repeated on a separate day.

[A short video that explains the sweat test and demonstrates how it is performed is accessible from the CFF website or directly at <http://www.youtube.com/watch?v=8UCWoz6gUp8>.]

What will happen during the sweat test?

Two sweat samples will be collected from your child, one from each arm. Two small electrodes with a gel containing a chemical called pilocarpine ("pie-low-CAR'-peen") that causes sweating are placed on the forearm. A weak electrical current is 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 is collected into a small coil of plastic tubing for 30 minutes. The sweat samples are taken to the

hospital laboratory, where the amount of chloride (pronounced “KLOR’-ide”), one of the chemical components of the salt contained in sweat, are measured using test procedures that are approved by the Cystic Fibrosis Foundation.

Will the sweat test be painful for my child?

The 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.

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 any 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 at 9:00, 10:00 and 11:00 am. The doctor’s office may schedule the sweat test for your child; if not, please call (203) 739-7686 to make an appointment.

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

Sweat tests are performed at the Danbury Hospital Laboratory located on the second floor of the Tower building at 24 Hospital Ave. Park in the Blue Parking area and enter at the Main Lobby. Come to the main Central Processing window and a technologist will meet you shortly. It is important to be on time for your appointment. If you must cancel your appointment, please call the Laboratory at (203) 739-7686 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 as we are authorized to release these only 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) 739-7686. For questions about interpretation of the test results or about cystic fibrosis, please consult with your child’s pediatrician.

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