Contradictions

- Patients under the age of 48 hours. It may be difficult to obtain an adequate sweat sample during the first two weeks after birth.
- Patients receiving oxygen by open delivery system
- Patients feeling ill the day of the test, with a fever, bad cold, or flu
- Patients with a rash or inflammation which covers a large area on the arms or legs.

Sweat chloride tests are conducted at the ProMedica Laboratories location in the Conrad Jobst Tower at ProMedica Toledo Hospital.

No appointment is required but tests are performed Mon. – Fri., 7 a.m.– 3 p.m.
What is Cystic Fibrosis?
Cystic Fibrosis is an inherited disease that affects the lungs and digestive system. Symptoms of Cystic Fibrosis include:
- Salty tasting skin
- Persistent cough, sometimes with phlegm
- Frequent lung infections
- Shortness of breath or wheezing
- Slow growth and weight gain, in spite of eating well
- Frequent bowel movements that may be greasy and bulky

How is Cystic Fibrosis Diagnosed?
The sweat chloride test is the “gold standard” for diagnosing Cystic Fibrosis. Additional testing may be used for diagnosing Cystic Fibrosis, including:
- Newborn infant screening at birth (all children born in the U.S. are screened)
- Genetic testing
- Chest X-rays and lung function testing
- Stool sample analysis

Sweat Chloride Testing
The sweat chloride test is a non-invasive, needleless test that can aid in the diagnosis of Cystic Fibrosis.

What to Expect During the Test
There are no needles involved in the procedure. The sweat chloride test takes about one hour from start to finish. The test determines the amount of chloride in the patient’s sweat. It is usually performed on the forearm but can be performed on the legs of infants.

During the first step, a laboratory technician washes the patient’s forearm or thigh with alcohol and distilled water and applies two small gelatin disks. The disks are coated with pilocarpine, a medicine that causes sweating. Each disk is covered with small metal plates, called electrodes, and strapped to forearm or thigh. The electrodes are attached to a small box that transmits a slight electrical current to the skin; this may tingle or itch, but is not painful. After five minutes, the electrodes and disks are removed. The site will be red and diaphoretic or sweaty.

Next, macroducts are applied to the stimulated areas to collect the sweat for 30 minutes. If the patient does not produce enough sweat the first time, the test should be repeated.

The sweat is then transported to the laboratory where it will be tested to determine the chloride concentration. The results, which will aid the physician in determining whether the patient has Cystic Fibrosis, will be reported to the physician the next business day after the test is performed.

Patient Preparation
The patient should not use creams, oils or lotions on arms and legs for 24 hours prior to testing. The patient should eat and drink normally and may take all medications the day of the test. You may bring warm clothes and/or blanket for the patient to wear during the test.