Beaumont HEALTH

Information Relative to Sweat Chloride Testing

The sweat chloride test measures chloride ions, the negatively charged part of common salt (sodium chloride), in sweat. The test is performed primarily to rule out the possibility that cystic fibrosis is responsible for symptoms you or your child may be experiencing. It is normal in more than 98% of cases performed in our laboratory. In cystic fibrosis, the amount of chloride in sweat is increased, however, an increase in chloride may be found in other conditions, as well.

In order to stimulate production of enough sweat for reliable measurement, a substance called Pilocarpine is delivered into the skin of the arm or leg by a process called iontophoresis. This part of the test takes 5 minutes and may cause some mild tingling and temporary redness. Because the sensitivity of skin is unpredictable, there is a remote possibility that a rash or blister could occur. While we take precautions to prevent these problems, it is important that the system not be touched or manipulated during the test.

Once Pilocarpine stimulation has been completed, sweat must be collected for a period of 30 minutes and then tested for chloride in the laboratory. However, in a small number of cases (less than 1% in our experience) not enough sweat will be produced and the sweat collection process will have to be repeated. If you wish to wait about 5 minutes, we will be able to tell you if enough sweat has been obtained. If the collection process must be repeated, you may elect to have it done the same day or at some other time.

The test requires approximately 2 hours to complete in the laboratory. Results may be obtained from your physician.