

Cystic Fibrosis Oral Glucose Tolerance Test (OGTT)

What is an OGTT?

The OGTT is a blood test that measures how your body removes glucose (a kind of sugar) from the blood. Insulin is made in the pancreas and it helps change glucose into energy for your body. People with cystic fibrosis (CF) may have trouble making insulin or using insulin their body makes. This could lead to CF-related diabetes (CFRD) or impaired glucose tolerance (IGT). CFRD and IGT are not caused by eating too much sugar or carbohydrates. It is important to know that there is nothing a person with CF has done to cause his/her diabetes, nor is there anything specific a person can do to prevent his/her diabetes. Rather, some people with CF will develop CFRD or IGT, while others may not.

An OGTT can diagnose CFRD or IGT. The Cystic Fibrosis Foundation recommends that everyone who has CF and who does not already have CFRD get an OGTT every year after the age of 10 years old.

Why should I care about CFRD or IGT?

If your body is making enough insulin your blood glucose level will be normal. High glucose levels can lead to weight loss, inability to gain weight and a drop in pulmonary function. Blood glucose levels that stay high for a long time can cause problems with your nerves, eyes and kidneys.

What happens during the test?

A lab tech or nurse will take a sample of blood from your arm (fasting value). If your CF team has ordered other blood tests, such as those to measure vitamin levels, those test may be done at this time as well.

You will drink a special glucose liquid (75 gram Glucola). Blood samples will be taken at 30-minutes, 60-minutes, and 2-hours after finishing the Glucola. The results will be available within 2 days.

How do I get ready for the test?

- I do not need an appointment. I may have the test done at my convenience, as long as it is ordered by my CF team. The National Jewish Health lab opens at 7:00am.
- I may choose to have the lab done off-site at a lab closer to me. If this is so, I need an off-grounds lab order to take to a lab in order to have the test completed.
- I cannot eat, drink, or exercise hard for at least 8 hours. I can drink plain, unflavored water.
- I can take my usual morning medicines and do my treatments. But, I need to wait until after the test is completed to take these:

- If I have IGT, my CF team may want me to repeat the OGTT.
- If I am on Metformin, I need to stop this medicine for one week prior to my OGTT.

- The OGTT is done when I am feeling well.
- During the test I may drink plain, unflavored water or eat ice, but I cannot eat or drink anything else.
- I should bring something to keep me busy during the test, like a book or computer. I should be sitting quietly between lab draws.
- I may want to bring something to eat after the test is finished. The test will take 2 hours.
- To find out the results of my OGTT in 2-3 days, I need to call my CF center.
- If having OGTT completed at a lab other than National Jewish Health, be sure to have my results faxed to CF Clinic at 303-270-2257.

Will anything affect the test results?

Yes. These things will affect the test's accuracy: Eating or drinking anything but water before or during the test; smoking or exercising before or during the test; taking steroids (Prednisone or similar medicine) or being sick at the time of the test. If in doubt, call your CF team (303-270-2333) and they will let you know what to do.

What do the results mean?

Your CF team will go over the results with you. If your body needs help to better use blood glucose for energy, your CF team will work with you on a plan that is best for you.

Visit our website for more information about support groups, clinical trials and lifestyle information.

PTE.351 © Copyright 2016

NOTE: This information is provided to you as an educational service of National Jewish Health. It is not meant to be a substitute for consulting with your own physician.

National Jewish Health is the leading respiratory hospital in the nation. Founded 123 years ago as a nonprofit hospital, National Jewish Health today is the only facility in the world dedicated exclusively to groundbreaking medical research and treatment of patients with respiratory, cardiac, immune and related disorders. Patients and families come to National Jewish Health from around the world to receive cutting-edge, comprehensive, coordinated care. To learn more, visit njhealth.org.