

Preparing for an Endocrinology Function Test

What is an endocrinology function test?

An **endocrinology function test** is used to determine if you have a hormone problem. The test will either start (**stimulate**) or stop (**suppress**) your production of certain hormones so that your doctor can see how your body responds. This helps your doctor make the correct diagnosis for you.

During the test, we will give you a hormone or hormone-like substance and we will take blood samples during the test to measure your hormone levels.

There are different kinds of endocrinology function tests:

Name of test:	Purpose of test:
Clonidine Suppression Test	This 5-hour test is used to determine if you have an endocrine tumor. We give you a medicine to swallow called clonidine.
Cosyntropin Stimulation Test	This 2-hour test is used to check if your adrenal glands are releasing cortisol properly. We inject a hormone called cosyntropin into your muscle tissue.
Glucagon Stimulation Test	This 6-hour test is used to check if your body is producing enough growth hormone. We inject a hormone called glucagon into your muscle tissue.
Insulin Tolerance Test	This 6-hour test is used to determine if your body can produce cortisol and growth hormone. We give you insulin through an IV catheter.

Name of test:	Purpose of test:
Levothyroxine Absorption Test	This 8-hour test is used to find out if your body is absorbing the medication levothyroxine. We give you a medicine to swallow called levothyroxine.
Mixed Meal Tolerance Test	This 7-hour test is used to determine if your sugars drop after meals and if this is due to insulin production issues. We give you a liquid meal beverage to drink that tastes like a milkshake.
Oral Glucose Tolerance Test	This 3-hour test is used to identify if you have Type 2 diabetes or too much growth hormone. We give you a very sugary liquid (glucose) to drink.
Prolonged Hypoglycemia Fast	This 8-hour test is used find out if your blood sugar (glucose) levels drop when you don't eat (hypoglycemia). We ask you to stop eating before and during the test.
Saline Suppression Test	This 6-hour test is used to identify if your body is making too much of the hormone called aldosterone, which causes high blood pressure. We give you fluid (saline) through an IV catheter in your arm.
Water Deprivation Test	This 8-hour test is used to identify if your body is missing a hormone called ADH causing you to urinate a lot. We ask you to limit how much water you have before and during the test.
Adult Growth Hormone Deficiency	This 3-hour test is used to check if your body is producing enough growth hormone. You will drink an oral solution that will help stimulate growth hormone production.

When should I arrive for the test?

Please plan to be at the clinic at the **arrival time** on your appointment notice so that you can check in and we can get you set up for the test. If you arrive late, we may ask you to reschedule the visit.

Where will my procedure be performed?

Your test will be performed in the Metabolism, Endocrinology, & Diabetes Clinic at Domino's Farms. Detailed driving instructions, parking information, and maps are available on our website at: <https://michmed.org/mVnng>

How do I prepare for my test?

Clonidine Suppression Test:

1. 48 hours before the test:
 - You may need to stop taking your medicine for high blood pressure.
Check with your doctor for instructions before stopping any medicines.
2. Ten (10) hours before the test:
 - Do not eat any food.
 - Do not drink any liquids or water.

Cosyntropin Stimulation Test:

1. Stop taking these medications:
 - 24 hours before the test, stop taking prednisone.
 - 8 hours before the test, stop taking hydrocortisone.
1. You may eat and drink as normal.

Glucagon Stimulation Test:

1. One (1) month before the test:
 - Stop taking your growth hormone medicine. **Check with your doctor for instructions before stopping any medicines.**
2. At midnight the day before the test:
 - Do not eat any food. No liquids or water either.

Insulin Tolerance Test:

1. After midnight the day before the test:
 - Do not eat any food. Do not drink any liquids or water.
2. Stop taking these medications:
 - 24 hours before the test, stop taking prednisone.
 - 8 hours before the test, stop taking hydrocortisone.
 - Stop any growth hormone treatment a week before the test
3. If you take insulin for diabetes, check with your doctor to see if you need to change your insulin dose before this test.
4. You must have a responsible adult (age 18 years or older) drive you on the day of your test.

Levothyroxine Absorption Test:

1. Ten (10) hours before the test:
 - Do not eat any food. Do not drink any liquids or water.
2. **Do not** take your morning medications.

Mixed Meal Tolerance Test:

1. Three (3) days before the test:
 - **Do not** limit the amount of carbohydrates you eat (have an unrestricted carbohydrate diet).
2. After midnight the day before the test:
 - Do not eat any food. Do not drink any liquids or water.
3. Take all your medicines as normal with sips of water.

Oral Glucose Tolerance Test:

1. Three (3) days before the test:
 - **Do not** limit the amount of carbohydrates you eat (have an unrestricted carbohydrate diet).
2. Twelve (12) hours before your test:
 - Do not eat any food. Do not drink any liquids other than water. You may drink water up until the time of the test.
3. Take all your medicines as normal.

Prolonged Hypoglycemia Fast:

1. Three (3) days before the test:
 - **Do not** limit the amount of carbohydrates you eat (have unrestricted carbohydrate diet).
2. After midnight the day before the test:
 - Do not eat any food. Do not drink any liquids or water.
3. Take all your medicines as normal with sips of water.
4. You must have a responsible adult (age 18 years or older) to drive you on the day of your test.

Saline Suppression Test:

1. After midnight the day before the test:
 - Do not eat any food. Do not drink any liquids or water.
2. If you take any medicines for high blood pressure, you may need to change or stop these before the test. **Check with your doctor for instructions before stopping any medicines.**
3. You cannot have this test if you are taking eplerenone, spironolactone, or a diuretic medicine. **Check with your doctor for instructions before stopping any medicines.**

Water Deprivation Test:

1. After midnight the day before the test (or any other time specified by your doctor, this could be after dinner for example):
 - Do not eat any food. Do not drink any liquids or water.
2. Two (2) hours before the test:
 - Do not drink caffeine or alcohol. Do not use any tobacco products.
3. Take all your medicines as normal with sips of water only

Adult Growth Hormone Deficiency test:

1. Ten (10) hours before the test:
 - a. Do not eat any food. Do not drink any liquids or water.
2. You may need to discontinue a few medications before the test. Please discuss this with your doctor
3. You may need to have an EKG tracing of your heart done before the test. Please discuss this with your doctor
4. No growth hormone injection for at least 1 week before the test.

What will happen during the test?

A Registered Nurse (RN) trained in endocrinology function testing will perform the test.

1. After you check in, we will take you to the testing room and you will lay on an exam bed while the nurse gives you the hormone. We may take a blood or urine sample at this time.
2. The nurse will let you know if you will be in the testing room for the entire test, or if you can wait in the clinic lobby for some of the time. You can bring something to read or watch while you are waiting.
3. The nurse will draw your blood at specific times during the test.
4. The nurse will tell you when the test is over, and you can leave.

What will happen after the test?

You can leave the clinic and continue with your daily activities and meals as usual when the test is done. We will send your blood and other samples to the lab to be analyzed.

You will see the results in your MyUofMHealth account. If you do not have an account, we will send your results to you by mail. Your doctor will call you with any urgent results and will discuss any non-urgent results with you at your next visit.

To sign up for a MyUofMHealth patient portal account, visit

<https://michmed.org/MxKAK>

Who do I call with questions, or to cancel or reschedule?

- To cancel or reschedule this appointment, please call 48 hours in advance:
 - Metabolism, Endocrinology, & Diabetes Clinic at (734) 647-5871
- For other questions Monday – Friday, 8 am to 5 pm., call:
 - Metabolism, Endocrinology, & Diabetes Clinic at (734) 647-5871
- After business hours, call:
 - Hospital Operator at (734) 936-4000 and ask for the endocrinology fellow on call

Disclaimer: This document contains information and/or instructional materials developed by Michigan Medicine for the typical patient with your condition. It may include links to online content that was not created by Michigan Medicine and for which Michigan Medicine does not assume responsibility. It does not replace medical advice from your health care provider because your experience may differ from that of the typical patient. Talk to your health care provider if you have any questions about this document, your condition or your treatment plan.

Authors: Sandouk Zahrae, MD
Reviewers: Jennifer Wyckoff, MD
Last Revised: 12/2021

Patient Education by [Michigan Medicine](#) is licensed under a [Creative Commons Attribution-NonCommercial-ShareAlike 4.0 International Public License](#).