



NATIONWIDE CHILDREN'S

When your child needs a hospital, everything matters.™

Helping Hand™

Health Education for Patients and Families

Growth Hormone Stimulation Test Outpatient

A growth hormone stimulation test is done to find out if the pituitary gland is releasing growth hormone into the bloodstream in the right amounts. The pituitary is a small gland (about the size of a pea) in the brain.

For this test, your child will get medicines to stimulate the pituitary gland to release growth hormone. The medicines used are L-arginine (EL AR jah neen) and:

- ☐ Clonidine (KLON uh deen) or
- ☐ Glucagon (GLU ka gon)

Your provider may also use a medicine called Cortrosyn™ (COR tro sin) to know about cortisol, a stress hormone, in the blood.

Samples of blood are then taken and sent to the laboratory to measure the amount of growth hormone.

For Outpatient Use Only

Child's name _____

APPOINTMENT:

Date _____ Time _____

Please bring your child to:

- ☐ Crossroads Registration
First floor, Main hospital.
700 Children's Dr.

Please come 15 minutes early to allow time to register.

The night before the test

- Your child should **NOT** have anything to eat or drink after midnight the night before the test, except tap water. This means **NO** breakfast, breath mints, chewing gum, flavored or bottled water.
- Your child should not take any medicine before the test unless the health care provider tells you they can have it. You may bring their medicine with you to the test so it may be given after the test is over.
- Tell the health care provider if your child has recently or is currently taking steroids.

- Tell the health care provider if your child has had any allergies or reactions to medicine, food preservatives or dyes in the past. Signs of a reaction can be a rash, hives, itching, shortness of breath, wheezing, coughing and swelling of face, lips, tongue or throat.
- Your child should go to bed at their usual time.

The day of the test

- On the day of the test, your child should feel well and not have a fever.
- Bring your child to the clinic 15 minutes before the appointment, dressed comfortably. It would be best if your child wears a short-sleeved shirt.
- Bring books, toys or games for your child to use during the test. The clinic has a TV with a DVD player. Feel free to bring a movie from home.
- If you think your child will be hungry, bring a snack to give after the test is over.

How the test is done

The test will be done in the Infusion Clinic. This test may take up to 6 hours. Parents are asked to stay with their child during the test. Since there is limited seating, other family members may be asked to sit in the waiting room.

- The nurse will start an intravenous line (IV). The nurse may offer to put lidocaine-prilocaine cream on your child's arm before starting the IV. The cream takes about 20 minutes to numb the skin where the IV will go.
- The IV will be used to draw blood samples, to give L-Arginine and, if ordered, Cortrosyn (Picture 1).
- Your child will then get either Clonidine or Glucagon. Clonidine is a pill that is swallowed. Glucagon is given by injection (needle) under the skin in the upper arm and not in the IV.
- Blood samples will be drawn for growth hormone studies every 30 minutes for up to 4 hours. Your child should not feel any pain since the blood will be drawn from the IV. The total amount of blood drawn is small (about 5 teaspoons).



Picture 1 A nurse will start an IV. The IV will be used to draw blood and to give medicines.

After the test

- You may give your child a snack if you brought one. They can now eat what they want.

- Have your child drink plenty of liquids the rest of the day.
- Your child's health care provider will contact you about the test results and explain the plan for their medical care.

Side effects of medicines

- **L-Arginine:** This medicine can cause low blood sugar, which can make your child lightheaded or nauseated. Side effects from L-Arginine are rare and usually pass by the time your child goes home.
- **Clonidine:** Clonidine lowers blood pressure. The most common side effect is feeling dizzy and lightheaded. Your child should get up slowly after sitting or lying down and be extra careful climbing stairs. They should not go to school and should not play any sports, swim or exercise for the rest of the day. Activities that require them to be alert or have clear vision should be avoided. They may also feel very sleepy for a few hours or have dry mouth, dry eyes or blurry vision. These side effects can last up to 24 hours. Your child should be fine the following day after a good night's sleep.
- **Glucagon:** This medicine can cause low blood sugar, which can lead to nausea and vomiting. After the test is done, a snack or meal will help make your child feel better.
- **Cortrosyn:** Although rare, Cortrosyn can cause a flushing, warm feeling in the face and a metallic taste in the mouth.

Parent information for Crossroads Registration

- **Crossroads Registration** is located on the main level near the Crossroads Welcome Desk, between the Crossroads elevators and the Tower elevators. Follow the Blue Path to the Crossroads lobby where the Green Path meets the Blue Path.
- **The Infusion Clinic can be accessed from the Tower elevators** (between Crossroads Registration and Urgent Care along the Blue Path). Take the Tower elevators to **level 4** and **turn right into Suite D**.

Parking options:

- **Hospital Garage on Children's Drive.** Once inside, turn right and follow the Blue Path. It meets the Green Path at the Crossroads Registration Area.
- **Outpatient Care Garage on 18th Street.** Enter the hospital and follow the Blue Path. It meets the Green Path at the Crossroads Registration Area.
- **Valet parking on Children's Drive or 18th Street.** Enter the hospital and follow the Blue Path. It meets the Green Path at the Crossroads Registration Area.

If you have any questions, contact your child's health care provider in the endocrinology department.