
GROWTH HORMONE STIMULATION TEST

Your doctor would like to find out more about the functioning of the hormones affecting your child's growth.

What is growth hormone?

Growth hormone is produced by the pituitary gland, a pea-sized gland, located under the brain. Growth hormone is important for bone growth and strength, muscle development, as well as sugar and fat metabolism.

What is a growth hormone stimulation test?

A stimulation test involves using various stimulating agents to trigger the release of growth hormone from the pituitary gland. Two stimulating agents (medications) are given, and then blood samples are collected over a period of time. The response to the stimulating agents will help to determine if enough growth hormone is being released.

Is there any special preparation for this test?

These instructions will help you to prepare for the test. Not all children require the same preparation; please follow the instructions that are checked off for your child.

Your child's growth hormone test has been booked for **8:00 AM** on _____ .

This is a fasting test. Have a snack at bedtime on the night before the test (no later than 10:00 PM.) No breakfast on the morning of the test. No food, medications or fluids other than water until after the test is completed, unless otherwise instructed by your doctor or nurse.

- Your child needs to take a medication called Estrace® (17β-estradiol) on the two nights before the test. This medication helps to stimulate the release of growth hormone. It is best to take this medication with food as it may make some children feel nauseated.

Take _____ tablet(s) of Estrace® at bedtime on _____ .

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If your child is afraid of needles, you can buy EMLA®, a non-prescription cream or patch to numb the skin where the needle will be inserted. These are available at most pharmacies and should be applied as instructed, upon awakening on the morning of the test (no later than 7:00 AM). The testing room also has a spray, Pain Ease®, which can be used just prior to the needle insertion.

Where is the testing room?

Your child will be pre-registered by the clinic prior to the day of the test. Proceed directly to the testing room (Medical Investigation Facility, MIF), Room 2C30 in the Medical Day Unit (MDU) area of the hospital (main red building), arriving no later than 8:00 AM. Take the elevator from the BC's Children's Hospital lobby to the 2nd floor. Upon exiting the elevator turn left, then right, and follow the signs to MDU/MIF.

If your child is unable to keep this appointment, please notify the testing room at 604-875-3680 as soon as possible, as the room could be arranged for another patient.

What can we expect during the test?

- The testing room nurse will insert an intravenous needle (IV). This IV will be used to collect the blood samples and give the medicines (stimulating agents) for the test.
- The stimulation test takes about 4 hours once the IV catheter is in place. Additional time before or after the test may extend your child's stay in the testing room; please take this into account when making plans for the day. The test is 4 hours, and it is preferable to arrange childcare for other young family members if possible.
- Your child needs to remain fairly inactive during the test. You may wish to bring books or other quiet activities (music, games). A substantial number of DVDs are available for viewing.
- At the end of the test your child will be provided with a snack to ensure that the blood sugar remains stable. If your child is on a special diet, please bring a snack with you.

When will the doctor have the results?

The doctor will have the results in about a week. If the results are different than expected, your doctor will call you to discuss these in detail.