



**University  
Hospitals Sussex**  
NHS Foundation Trust

# GHRH-arginine test

Department of Endocrinology

Patient information

**Your doctor has recommended that you take this test to help with the diagnosis and the management of your condition. Please would you read this carefully and ask us about anything that is not clear or if you would like more information.**

## **What is the purpose of the test?**

This test is used to assess your body's ability to make growth hormone. In children, growth hormone is important for growth! In young adults, it is important for the maturation of bones and muscles. In older adults, a lack of growth hormone sometimes affects quality of life or mood. NICE (the National Institute of Clinical Excellence) have issued guidelines about GH treatment in all age groups, and specified that it should only be given to patients who meet certain criteria.

## **How long will the test take?**

The test will take a full morning: you will be free to go home after lunch.

## **Who will carry out the test?**

The test will be carried out by the endocrine specialist nurses.

## **What will I have to do?**

Please have nothing to eat or drink except water for 10 hours before the test. You **SHOULD** take all your regular tablets and medicines.

## **Is any drug or medicine used during this test?**

You will be given an injection of GHRH. This is a natural hormone (chemical signal) produced by the hypothalamus.

The hypothalamus is part of the brain which controls hormone function. GHRH stimulates growth hormone production by the pituitary gland, which is a small gland beneath the brain. You will also be given an injection of arginine, a natural amino acid (the building blocks of proteins) that also stimulates growth hormone release.

## **What will happen during the test?**

We will find out your weight so that we can work out the correct dose of GHRH for you. The nurse will use a needle to insert a small plastic tube into a vein in your arm. We will use this to take blood samples and to give you the injections. After we have taken the first blood samples, we will give you the injection of GHRH, followed by the arginine. This takes about 30 minutes. We measure your response to the test by taking more blood samples over the next two hours.

## **What are the possible risks or side effects of the test?**

The GHRH may make you flush. If this does happen it will only last a short time (less than five minutes).

## **What are the alternatives to the test?**

There is another test (the insulin tolerance test) but the GHRH-arginine test is safer and patients who have had both usually prefer the GHRH-arginine test. NICE guidelines state that patients must have a growth hormone stimulation test to qualify for GH treatment.

## What will happen after the test?

We send your blood samples to the laboratory for analysis, which may take up to two weeks. The results will be reviewed by your endocrinology Consultant, who will write to you about them.

If you are growth hormone deficient, the endocrine specialist nurse will contact you regarding growth hormone replacement therapy. The whole process may take up to a month.

## Who do I contact if I have any questions?

Endocrine Specialist Nurses [uhsussex.ens@nhs.net](mailto:uhsussex.ens@nhs.net)

### Royal Sussex County Hospital

Endocrine specialist nurse 01273 696955 Ext. 64379

### Princess Royal Hospital, Haywards Heath

Endocrine specialist nurse 01444 441881 Ext. 65660

If you have any urgent or emergency questions then your GP can advise you or they will contact the hospital on your behalf.

## Patient self-help groups and further information:

### The Pituitary Foundation

Website: [www.pituitary.org.uk](http://www.pituitary.org.uk)

This leaflet is intended for patients receiving care in Brighton & Hove or Haywards Heath

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