



Information for patients  
and carers

# Glucagon stimulation test

## What is a glucagon stimulation test?

This is a diagnostic test to assess if your pituitary gland is producing sufficient amounts of growth hormone and/or cortisol.

## Why do we need growth hormone in adulthood?

Growth hormone (GH) controls the amount of fat, muscle and water present in the body. Bone structure and heart function are also influenced by GH. Our general well-being is also thought to be controlled by GH.

## Why do we need cortisol?

Cortisol is one of the body's main steroid hormones which is vital for life. It enables us to cope with stresses such as illness, infection, surgery/traumas. It also regulates blood pressure, the body's fluid balance and metabolises fats, carbohydrates and proteins.

## Preparation for the test

You will need to fast from midnight the day before your test. You may drink water. If you are on replacement steroid tablets you must stop taking these 24 hours prior to the test. Take the normal morning dose the day before your test and then omit further steroid tablets until after the test is completed.

## What the test involves

The test starts at approximately 9 am as cortisol levels are generally higher in the morning. The nurse will need to insert a cannula (narrow tube) into a vein in your arm so that blood samples can be taken. The first blood sample is taken approximately 30 minutes after the cannula has been inserted. This is because cortisol levels will be slightly higher immediately following insertion of the cannula. A dose of glucagon (this is to increase growth hormone and cortisol levels) will then be given subcutaneously (into the skin). Samples of blood will then be obtained from the cannula. The test will take approximately 4 hours to complete.

You will need to recommence previous steroid therapy on completion of the test.

## Side effects

You may experience mild nausea (feeling sick) and occasional vomiting. It may occur during the test and may persist until shortly after the test has been completed.

## Results

Your results will be discussed with you at your next clinic appointment. However, you can contact the endocrine specialist nurse prior to this if you are concerned.

## Contact details

Should you require further advice or information please contact:

Endocrine specialist nurse: 01772 523533

Clinical investigation unit (Royal Preston Hospital): 01772 522960

## Sources of further information

[www.lancsteachinghospitals.nhs.uk](http://www.lancsteachinghospitals.nhs.uk)

[www.nhs.uk](http://www.nhs.uk)

[www.patient.co.uk](http://www.patient.co.uk)

[www.patient.co.uk/doctor/pituitary-function-test.htm](http://www.patient.co.uk/doctor/pituitary-function-test.htm)

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

[www.labtestsonline.org.uk](http://www.labtestsonline.org.uk)

**Lancashire Teaching Hospitals NHS Foundation Trust is not responsible for the content of external internet sites.**

Please ask if you would like help in understanding this information. This information can be made available in large print and in other languages.

### **Lancashire Teaching Hospitals is a smoke-free site**

On 31 May 2017 Lancashire Teaching Hospitals became a smoke-free organisation. From that date smoking is not permitted anywhere on any of our premises, either inside or outside the buildings. Our staff will ask you about your smoking status when you come to hospital and will offer you support and advice about stopping smoking including Nicotine Replacement Therapy to help manage your symptoms of withdrawal.

If you want to stop smoking you can also contact the Quit Squad Freephone 0800 328 6297.

#### **Cantonese:**

如果你希望以另外一種格式接收該資訊，請和我們聯絡，不必猶豫。

#### **Gujarati:**

જો તમને આ માહિતી બીજી રચના કે ફોર્મેટમાં મેળવવાની ઈચ્છા હોય, તો કૃપા કરી અમારો સંપર્ક કરતા અચકાશો નહિ.

#### **Hungarian:**

Kérjük, vegye fel velünk a kapcsolatot, ha más formában kéri ezt az információt.

#### **Polish:**

Jeżeli chciał(a)by Pan/Pani otrzymać niniejsze informacje w innym formacie, prosimy o kontakt.

#### **Punjabi:**

ਜੇ ਤੁਸੀਂ ਕਿਸੇ ਹੋਰ ਫਾਰਮੈਟ ਵਿਚ ਇਹ ਜਾਣਕਾਰੀ ਲੈਣਾ ਚਾਹੁੰਦੇ ਹੋ ਤਾਂ ਸਾਡੇ ਨਾਲ ਸੰਪਰਕ ਕਰਨ ਤੋਂ ਨਾ ਝਿਜਕੋ।

#### **Urdu:**

اگر آپ اس معلومات کو کسی اور صورت میں حاصل کرنا چاہتے ہیں تو برائے مہربانی ہم سے رابطہ کرنے میں ہچکچاہٹ محسوس نہ کریں۔

**Department:** Endocrinology

**Division:** Medicine

**Production date:** June 2019

**Review date:** June 2022

JR224 V1

