



Information for
patients and
carers

Insulin Tolerance Test

What is an Insulin Tolerance Test?

This is a diagnostic test to assess if your pituitary gland is producing sufficient amounts of growth hormone and/or regulating your production of 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 must have nothing to eat or drink except water from midnight prior to your test the following day. **If you are on replacement steroid tablets you may be asked to stop taking these after your morning dose the day before your test is scheduled. This will be the case if we are testing the regulation of cortisol production by the pituitary, but if we are just testing the production of growth hormone you should continue with your normal steroid treatment.** You will need to have an ECG (heart rhythm tracing).

What the test involves

The test starts at 9am as cortisol levels are generally higher in the morning. The nurse will need to insert a cannula (narrow tube) into your arm so that blood tests can be taken and the Insulin can be given through this. A first blood test 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 Insulin will then be given through the cannula which will make your blood sugar drop quickly (hypoglycaemia). Samples of blood will then be obtained from the cannula.

Once the nurse is certain adequate hypoglycaemia has been achieved diet and fluid will be offered. The test will take approximately 3 hours.

If the initial dose does not lower blood sugar levels adequately a second dose of Insulin is required. This will mean taking additional blood samples and subsequently the test will take slightly longer than normal. Very occasionally the usual doses of insulin fail to lower your blood sugar adequately and a second test needs to be arranged at a separate time.

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

Side effects

During the test you may feel

- Light headed
- Shaky
- Sweaty and may notice a faster heartbeat
- Sleepy

These side effects are normal symptoms of hypoglycaemia and should only last a short time (approx 15 minutes). A nurse will be with you throughout to reassure you.

Contact details

Should you require further advice or information please contact:-
Endocrine Specialist Nurse 01772 523533

Sources of further information

www.lancsteachinghospitals.nhs.uk

www.nhs.uk

www.patient.co.uk

www.accessable.co.uk

www.pituitary.org.uk

www.labtestsonline.org.uk

All our patient information leaflets are available on our website for patients to access and download:

www.lancsteachinghospitals.nhs.uk/patient-information-leaflets

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

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

Gujarati:

આ માહિતીને સમજવામાં સહાયતા જોઈતી હોય તો કૃપા કરીને પૂછો. આ માહિતી મોટા છપાણામાં અને અન્ય ભાષામાં ઉપલબ્ધ કરી શકાય છે.

Romanian:

Vă rugăm să întrebați dacă aveți nevoie de ajutor pentru înțelegerea acestor informații. Aceste informații pot fi puse la dispoziție în format mare și în alte limbi.”

Polish:

Poinformuj nas, jeśli potrzebna jest ci pomoc w zrozumieniu tych informacji. Informacje te można również udostępnić dużym drukiem oraz w innych językach

Punjabi:

ਜੇ ਤੁਸੀਂ ਇਹ ਜਾਣਕਾਰੀ ਸਮਝਣ ਵੱਲ ਮਦਦ ਲੈਣੀ ਚਾਹੋਗੇ ਤਾਂ ਕਰਿਪਾ ਕਰਕੇ ਇਸ ਬਾਰੇ ਪੁੱਛੋ। ਇਹ ਜਾਣਕਾਰੀ ਵੱਡੇ ਪ੍ਰਿੰਟ ਅਤੇ ਹੋਰਨਾਂ ਭਾਸ਼ਾਵਾਂ ਵੱਲ ਮੁਹੱਈਆ ਕੀਤੀ ਜਾ ਸਕਦੀ ਹੈ।

Urdu:

دو سر ی زبانوں او ر بڑی اگر آپ کو ہی معلومات سمجھنے کے لیے مدد کی ضرورت ہے تو یی چھپا یں ییہ ابی دست بو یسکت ہے برا ے مہر یان پو ے یچہ ہی۔ معلومات

Arabic:

مطبوعة بأحرف كبيرة و بلغات إذا كنت تريد مساعدة في فهم هذه لمعلومات يُرجى أن تطلب أخرى يمكن تو فسير هذه المعلومات

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