

IGF-1 generation test

Information for children, families and carers

We have given you this factsheet because your child's paediatric endocrinologist (doctor with expertise in looking after children and young people with hormone disorders) has referred your child for an IGF-1 generation test. It explains what an IGF-1 generation test is and what will happen at each of the appointments so that you know what to expect and can help to prepare your child. We hope it will help to answer some of the questions you may have. If you have any further questions or concerns, please contact us using the details at the end of this factsheet.

What is an IGF-1 generation test?

The pituitary gland is a small, pea-sized gland that is located at the base of the brain. It makes several hormones (chemical messengers) which act on other parts of the body. One of these hormones is called 'growth hormone', which is needed for normal growth during childhood.

Some people can make growth hormone, but their bodies do not respond to it very well. The IGF-1 generation test looks at how your child's body responds to growth hormone by measuring the level of IGF-1 (insulin-like growth factor-1) in their blood. IGF-1 is produced by the body when growth hormone is released.

Why does my child need this test?

We usually recommend this test for children who:

- have passed a growth hormone test but more information is needed about the way their bodies use growth hormone (this information can help us with diagnosis and/or treatment)
- already take growth hormone but are not responding to it the way we would expect (it is very unusual for growth not to improve on growth hormone treatment so if this is happening, it is important that we look at why this might be)

Your child's paediatric endocrinologist will have explained why they have referred your child for this test.

How should I prepare my child for the test?

No special preparation is needed.

During the test, your child can continue to:

- eat and drink as normal
- take their usual medications as normal
- go to school as normal

What will happen during the test?

During the test, your child will be given four doses of growth hormone over a period of five days (Monday to Friday) to see how sensitive their body is to growth hormone. Your child's paediatric endocrinologist will explain this test to you in more detail during your child's clinic appointment.

Some of the test will be performed in an outpatient setting. This means that your child will need to come into hospital for some of their appointments, but they will not need to stay in hospital overnight. Please see your child's appointment letter for more details (please note that the appointment location is not the same for each day of the test).

Monday (day 1)

On Monday, please bring your child to the children's outpatient department on C level at Southampton General Hospital (SGH). This first appointment will be with a paediatric endocrine nurse and usually takes around one hour.

At this appointment, we will:

- answer any questions you or your child may have
- ask if you're happy to go ahead with the test

We will then:

- take a blood sample from your child
- give your child a dose of growth hormone via an injection into their thigh or bottom (the needle we use is very fine so your child should not experience any pain)

Tuesday to Thursday (days 2 to 4)

Your child will then need to have three more doses of growth hormone over the next three days (Tuesday to Thursday). Your child will usually be given these injections at home by your local children's community nurse. The reason these injections must be given by a nurse, rather than yourself, is because the dose is very specific and needs to be closely monitored by a healthcare professional.

Each of these appointments should take no longer than 30 minutes.

Friday (day 5)

On Friday, please bring your child to the children's outpatient department on C level at SGH for a final blood test.

The length of this appointment can vary depending on how long it takes for us to take the necessary blood sample(s) from your child. However, it should take no longer than one hour.

This then completes the IGF-1 generation test.

Are there any risks or side effects?

The IGF-1 generation test is a very safe test. It would be unusual for your child to experience any side effects during or after the test.

Are there any alternative tests?

There are no alternative tests to measure how effectively your child's body is using growth hormone.

When will I receive my child's results?

Your child's results will usually be available within four to six weeks. We will contact you either by telephone or by letter when we receive the results.

At your child's next clinic appointment, we will discuss your child's results with you. We will also discuss whether any further tests or treatment would be beneficial for your child.

Contact us

If you have any further questions or concerns, please contact us.

Paediatric endocrine nurse specialists

Telephone: **023 8120 8719** (Monday to Friday, 8am to 4.30pm)

Email: pens@uhs.nhs.uk

Children's outpatient department

Telephone: **023 8120 4075** (Monday to Friday, 9am to 5pm)

Useful links

What? Why? Children in Hospital (WWCIH) - What happens in a blood test?

www.whatwhychildreninhospital.org.uk/blood-test

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For help preparing for your visit, arranging an interpreter or accessing the hospital, please visit www.uhs.nhs.uk/additionalsupport