

Scottish Paediatric Endocrine Group (SPEG)

Arginine test – Information for patients, parents, and carers



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Arginine stimulation test

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An arginine stimulation test is used to measure the body's ability to make growth hormone (GH). Growth hormone is one of the hormones produced by the pituitary gland. It is only produced intermittently, mostly during the night, so a blood sample during the day on its own is not helpful. Hormone levels can also be affected by exercise, stress, sleep, and puberty.

How does the test work?

The test involves giving your child a medicine called arginine. This makes the pituitary gland release growth hormone.

This test can sometimes be combined with other tests so that we can measure several hormones at the same time.

What happens on the day of the test?

Your child will need to fast from midnight the night before the test. This means they cannot have breakfast. They can still take their regular medications. Your child can drink plain bottled or tap water that does **NOT** have any additives such as flavourings, diluting juice or, sweeteners.

Drinking water can make the test easier for your child.

Your child will not be able to eat or drink during the test except plain bottled or tap water. We will give them a meal and drinks once the test is finished.

To do the test, we will need to insert a small plastic tube (cannula) into a vein in your child's arm or hand. We will offer some numbing cream (or an alternative) to make this procedure more comfortable.

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The cannula will stay in place for the whole of the test. This allows us to give the arginine and collect the blood samples throughout the test. The test could last approximately 2-3 hours.

We will remove the cannula before your child goes home.

After the test

Following the test your child must have a meal or something to eat before leaving the hospital. We recommend a quiet day (no sporting activities). You should encourage your child to eat regularly for the rest of the day and have snacks between meals.

The results will not be available immediately, but we will discuss them with you at your next clinic appointment (if we have not already contacted you before then).

Possible side effects

During the test your child should feel well but occasionally may feel a little sick or hungry.

Your child may experience low blood sugar during the test; however, this is monitored throughout.

Who to contact?

Please contact your local nurse or hospital doctor if you need more advice.

Doctor’s name:

Contact number:

Nurse’s name:

Contact number:

If you require this leaflet in an alternative format, please email:
NSS.EqualityDiversity@nhs.scot or telephone **0131 275 6000**
For support with British sign language, please visit their [website](#)