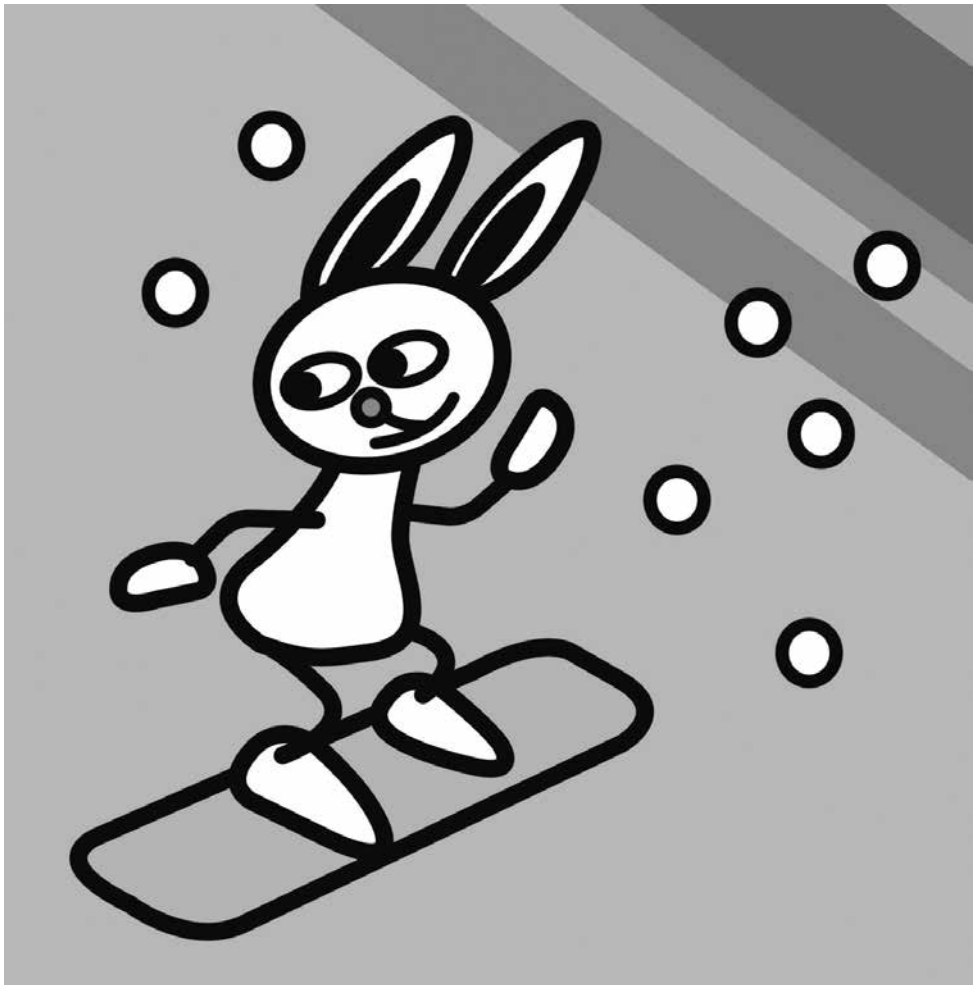


The Children's Hospital

Glomerular Filtration Rate (GFR) Test

Information for parents and carers



What is a Glomerular Filtration Rate (GFR) test?

This test is used to show how well your child's kidneys are working. The test involves injecting a dye (called iohexol) into a vein then taking blood samples to measure how well the kidneys' drainage tubes are filtering out the dye.

How long will it take?

You will need to arrive on the Children's Day Care Ward or Kamran's Ward at 8.30am. The test is usually finished by mid afternoon. Occasionally, we may need your child to stay longer for a further blood sample to be collected to make sure we get an accurate result.

Some simple preparation is needed.

We would prefer your child not to drink or eat certain foods before they come for the test and whilst they are at the hospital, as these can affect the test results. Your child should avoid the following foods on the day of the test until the last sample has been taken:

- **Tea, coffee, fizzy drinks, chocolate, ice cream and meat.**

If possible, your child should also try to avoid taking paracetamol or medicines containing paracetamol for 24 hours before the test. This medicine can also affect the test results.

Your child should carry on taking any prescribed medication.

Why does my child need this test?

Your doctor has asked for this test because they want to see how well your child's kidneys are working. This test is particularly useful:

- if your child has a disease that can affect the kidneys
- if your child has been taking a kind of medication that is known to cause changes in the kidneys
- if they are going to receive certain medicines that rely on the kidneys to eliminate (get rid of) them from the body.

The information from this test allows the doctors to plan your child's treatment better.

Are there any risks with this test?

If your child has a temperature of 38°C or higher, we will reschedule the test for a later date as the results could be affected.

The dye used is an iodine-based mixture routinely used in lots of other tests. The dose for the GFR test is much smaller than that used for most other tests. Your child will pass the dye out of their body in their urine.

The dye can interact with medicines such as amiodarone and metformin. The test can sometimes still go ahead if your child is taking one of these (perhaps by missing a few doses) but it is important that you let the nurses know all of the medicines your child is taking.

On very rare occasions during the injection the dye can leak out of the vein and into the surrounding tissues. This is called infiltration. If this occurs the nurses will stop the test immediately and monitor the injection site closely. The test will be rescheduled for a later date. The site may be sore for a few days but should gradually get better.

Are there any side effects?

The dye can very rarely cause allergic-type reactions, so it is important to remain on the ward for 15 minutes after the injection so that we can monitor your child for this. If you know your child is allergic to iodine please let the nurse know before the test.

Are there any alternatives?

The GFR test is a very safe way of checking how well your child's kidneys are working. Other tests may be used along with a GFR to build up a complete picture.

What does the test involve?

When you arrive on the ward, your nurse will measure your child's height and weight. This is recorded as the GFR result is related to growth. The nurse will take your child's temperature and may measure their blood pressure. Your child may also have a urine test. Your nurse and a play specialist will explain the test to you and your child and answer any questions you both may have.

Before the GFR test starts the nurse practitioner or doctor will place one or two cannulas into your child's veins, usually in their hand or arm. A cannula is a thin plastic tube that is placed under the skin, into a vein. Local anaesthetic cream (EMLA or Ametop, sometimes known as 'magic cream'), can be placed on their hand or arm before the cannulas are put in, so they do not hurt as much. This works well for 9 out of 10 children.

If your child has a double lumen central venous access device, we will give the injection through one lumen and then take the blood for testing from the other. If your child has a single-lumen central venous access device, PICC (peripherally inserted central catheter) or implantable port, we will give the injection into a vein and take the blood for testing from the central venous access device, PICC or port.

The test starts when your child has the first blood sample taken. After this, the nurse will inject the dye. The nurse will take another blood sample two hours, three hours and four hours after the injection of dye.

What happens in between blood samples?

You and your child will be free to leave the ward between the blood samples, but will need to make sure that you allow plenty of time to return to the ward for the blood tests. The accuracy of this test depends on the blood samples being taken on time. We will make sure you know the times you need to return to the ward.

What happens afterwards?

When the nurses have taken the last blood sample, the test will be finished and the cannulas will be removed. Your child will be able to start eating and drinking normally and you will be able to go home. We will give you the test results at your next outpatient appointment. If we need to take any action before the appointment, we will telephone you.

By the end of the day the dye should have passed out in your child's urine and they can return to their normal routine.

How to contact us if you have any concerns

If you have any worries or queries about your child once you get home, please telephone the ward and ask to speak to one of the nurses, or contact your GP.

Contacts and telephone numbers

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

John Radcliffe Hospital Switchboard Tel: 01865 741 166

Children's Day Care Ward Tel: 01865 234 148
(7:30am to 7:30pm)

Kamran's Day Care Tel: 01865 234 062
(24 hours)

Kamran's Ward Tel: 01865 234 068
(24 hours)

Further information

You may find the information on the following website helpful:

Great Ormond Street Children's Hospital – Information sheets

Website: www.gosh.nhs.uk/medical-information/

Please bring this leaflet with you on the day of
your child's admission.

We hope that this information is useful to you and would
welcome any comments about the care or information you
have received.

If you have a specific requirement, need an interpreter,
a document in Easy Read, another language, large print,
Braille or audio version, please call **01865 221 473**
or email **PALSJR@ouh.nhs.uk**

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www.ouh.nhs.uk/information

