

Fundus fluorescein angiography

Your child's eye specialist (ophthalmologist) would like them to have a test called a fundus fluorescein angiogram. This is a test to look at the blood vessels and lining (retina) at the back of the eyes. The leaflet explains the benefits, risks, other options and what you can expect when your child comes to hospital. If you have any questions, please speak to a doctor or nurse caring for your child.

Fundus fluorescein angiography

Fundus fluorescein angiography helps us to diagnose and monitor various eye conditions that affect the blood vessels or retina. It is a common procedure to investigate conditions like inflammation, swelling and poor blood supply at the back of the eyes. Your child's eye specialist has recommended this test to:

- check their eye health
- get more information about the condition of the back of their eyes
- plan the best treatment

We inject a small amount of yellow fluorescein dye into a vein in your child's arm. This dye travels to your child's eyes, where it highlights the blood vessels. The test is particularly useful to show:

- leaking blood vessels
- areas where the blood supply at the back of the eyes is poor

We then take photographs of your child's eyes.

The test takes place in the eye (ophthalmology) department at St Thomas' Hospital. It lasts 10 to 15 minutes.

Using an unlicensed medicine

The use of fluorescein (a yellow fluorescent dye) in this test is not officially approved for children (unlicensed). It is licensed for use in adults and has been used successfully in children for decades.

If you want to know more, you can ask to see our information about unlicensed medicines. There is also information in the manufacturer's leaflet about the use of fluorescein dye in adults. Otherwise, you can call our Evelina London medicines helpline (please see the details at the end of this leaflet).

Benefits of the test

Fundus fluorescein angiography gives your child's eye specialist important information to:

- help understand their eye condition
- plan the best way to treat it

Side effects and risks of the test

After we have given your child the injection of fluorescein dye, their skin and pee (urine) turn yellow for about 24 to 48 hours. Try not to worry because this is normal and not harmful. If your child drinks plenty of water afterwards, this can help to flush the dye through their system.

Some of the other more common side effects (that affect about 1 in 10 people) include:

- **Feeling sick (nausea) or being sick (vomiting):** This usually happens in the first 1 or 2 minutes after we give your child the injection. In most cases, it passes within seconds. If your child takes deep breaths, this will often help.
- **A rash, itching or tingling feeling on your child's skin:** We may prescribe an antihistamine medicine to help with the itching.

Very rare risks

Some very rare possible risks of the test include:

- **The tube used to inject the fluorescein dye coming out of position:** If dye leaks into the skin around the tube, your child may get a burning feeling. We would then stop the injection and the burning feeling should disappear by itself within a few days.
- **A serious allergic reaction (anaphylaxis) to the fluorescein dye:** This is thought to happen in less than 2 in 1,000 cases. It can cause breathing or blood circulation problems. We are equipped to deal with this emergency and will contact the emergency medical team if it happens.

It is important to tell us before the test if your child has previously had a reaction to fluorescein dye or has any other allergies, particularly to shellfish or seafood.

Other options

Your child's eye specialist thinks that fundus fluorescein angiography is the best way to get a detailed picture of the condition of their eyes.

If you do not want your child to have the test, we might not be able to diagnose or monitor the condition of their eyes so accurately. However, the eye specialist will continue to care for your child and talk to you about other options.

Giving your permission (consent)

We want to involve you in decisions about your child's care and treatment. If you decide that your child should have the test, we will ask you to sign a consent form. This says that you understand what is involved and agree for your child to have the test.

If you would like more information about our consent process, please speak to a member of staff caring for your child.

Preparing for the test

Before the test, we put drops in your child's eyes to make the pupils (central openings) bigger

(dilate them). If your child wears contact lenses, they will need to remove them before we put in the drops. For this reason, it is helpful to bring your child's glasses to the appointment.

The drops give us a clearer view of the retina at the back of your child's eyes (also called the fundus).

We ask a few questions about your child's general health.

During the test

Fundus fluorescein angiography is made up of these steps:

1. We put a small tube (cannula) into a vein in your child's arm.
2. We inject the fluorescein dye through the tube into your child's bloodstream. Within seconds, the dye travels through the blood vessels to reach your child's eyes.
3. We take a series of quick photographs. It is important that your child keeps as still as possible for this. The nurse or photographer may help your child to keep their eyes open by gently holding their eyelids.
4. We ask your child to sit back for a few minutes to rest.
5. We take another series of photographs.

The test should take no longer than 15 minutes.

Your child needs to tell the nurse if they feel unwell at any time. It is common to feel slightly sick (nauseous) as the dye enters the body, but this passes quickly. If your child takes deep breaths, this can help.

Extra tests on the same day

Your child may need to have extra tests on the same day as fundus fluorescein angiography.

One of the possible tests is called indocyanine green angiography. This is similar to fundus fluorescein angiography but uses a different dye. The dye can highlight the blood vessels in the layer underneath the retina (the choroid). In this way, the test may give your child's eye specialist more information about the health of their eyes.

Your child's eye specialist tells you whether they need this extra test before the procedure. The side effects of indocyanine dye are similar to using fluorescein dye. However, indocyanine dye does not have the short-term yellowing effect on your child's skin and pee (urine).

The risk of a severe allergic reaction is much less with indocyanine dye compared with fluorescein dye. However, it should be used with caution in anyone who is allergic to iodine.

Other tests that may happen on the same day include photographs and eye scans. These are non-invasive tests that do not have any risks.

After the test

We ask that your child stays in the department for about 30 minutes after fundus fluorescein angiography. This allows us to check that they do not have any late side effects. We remove the small tube before your child goes home.

As your child's pupils are still widened (dilated), their eyes will be sensitive to sunlight for at least 2 hours. They need to wear sunglasses or a hat to ease the discomfort. Your child also needs to bring someone who can help them to get home.

Getting your child's results

Your child's eye specialist may be able to give you the results of the test on the same day. Otherwise, they may ask you to make another appointment to come and talk about the results at a later date.

Contact us

If you have any questions or concerns about your child's fundus fluorescein angiogram, please call the orthoptic answerphone and a member of the team will aim to contact you as soon as possible, **phone** 020 7188 4299
email gst-tr.paediatricophthalmologyenquiries@nhs.net

If your child is in serious pain at any time or their discomfort continues for more than 3 days, please get medical advice from a GP.

For more information on conditions, procedures, treatments and services offered at our hospitals, please visit **web** www.evelinalondon.nhs.uk/leaflets

Evelina London medicines helpline

If you have any questions or concerns about your child's medicines, please speak to the staff caring for them or contact our helpline, **phone** 020 7188 3003, Monday to Friday, 10am to 5pm
email letstalkmedicines@gstt.nhs.uk

Your comments and concerns

For advice, support or to raise a concern, contact our Patient Advice and Liaison Service (PALS), **phone** 020 7188 8801 **email** pals@gstt.nhs.uk. To make a complaint, contact the resolution department **phone** 020 7188 3514 **email** complaints2@gstt.nhs.uk

Language and accessible support services

If you need an interpreter or information about your child's care in a different language or format, please contact the department where they have the appointment.

NHS 111

This service offers medical help and advice from fully trained advisers. They are supported by experienced nurses and paramedics. The service is available by phone 24 hours a day, **phone** 111 **web** www.111.nhs.uk (111 online is for people aged 5 or over, and you need to call 111 to get help for a child under 5)

NHS website

This website gives information and guidance on all aspects of health and healthcare. It can help you to take care of your child's health and wellbeing, **web** www.nhs.uk



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