

Patient information factsheet

Fundus fluorescein angiography (FFA) and indocyanine green angiography (ICGA)

We have given you this factsheet because you have been referred for a fundus fluorescein angiography (FFA) and/or an indocyanine green angiography (ICGA). It explains what FFA and ICGA are and what the tests involve, so that you know what to expect. 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 are fundus fluorescein angiography (FFA) and indocyanine green angiography (ICGA)?

FFA and ICGA are tests that provide information about the circulation of blood in the back of your eye.

- **FFA** – this test involves the use of fluorescein (a fluorescent yellow dye) to examine the condition of the tiny blood vessels in your retina (light-sensitive layers of nerve tissue at the back of the eye).
- **ICGA** – this test involves the use of indocyanine green (a fluorescent dye) to examine the layer of blood vessels beneath the retina, called the choroid.

Your doctor may request that you have one or both of these tests, so it is important that you read all the information below carefully.

Why have I been referred for FFA and/or ICGA?

There are many different conditions that can affect the circulation of blood in your eye.

These tests will give your doctor important information which will help them to better understand your eye condition and decide the best treatment option for you.

Are the tests suitable for everyone?

These tests might not be suitable if you have reduced kidney and/or liver function. We will discuss this with you in more detail on the day of your appointment, if applicable.

Are there any alternatives?

No other tests can provide as much information about the circulation of blood in the back of your eye as the FFA and ICGA can. However, if you are unable to have these tests, your doctor may recommend that you have an alternative imaging test called an optical coherence tomography angiography (OCTA). Unlike FFA and ICGA, OCTA is performed without the use of a dye.

If this is the case for you, your doctor will discuss this with you in more detail.

How should I prepare for the tests?

We advise not eating for two hours before your test(s). This is because some people may feel or be sick immediately after having the injection of dye (fluorescein and/or indocyanine green). You may continue to drink as normal up until your test(s).

You can continue to take your medication as normal on the day of your test(s).

Who will perform the tests?

The tests will be performed by a healthcare professional called a senior ophthalmic technician and either a nurse specialist or a doctor.

Where will the tests be performed?

The tests will be performed in the eye unit. For more information, please see your appointment letter.

What will happen before the tests?

When you come in for your appointment, we will explain the test(s) to you in detail and answer any questions you may have. If you are happy to go ahead with the test(s), we will then ask you to sign a consent form.

We will also:

- test your vision
- ask you about your general health (for example, if you have any kidney problems)
- ask you if you have any allergies (for example, shellfish or iodine)
- check your blood pressure and pulse
- give you eye drops to dilate your pupils (please note that these drops will blur your vision for four to six hours)

What will happen during the tests?

We will place a cannula (a small plastic tube) into a vein in your arm or the back of your hand. We will then ask you to sit in front of a scanning machine with your chin and forehead resting firmly on the frame of the machine. We will then inject indocyanine green and/or fluorescein dye into the cannula. The dye will travel quickly through your body to the vessels at the back of your eyes. While this happens, we will take a series of photographs of your eyes using a camera that has a flash. It is very important that you keep your eyes in the position that we ask you to.

Please note that we will not directly touch your eyes during either of these tests.

How long will the tests take?

The tests will take between 5 and 20 minutes. However, please expect to be in the eye department for a total of one to two hours. This is to allow time for us to perform any necessary checks before and after the tests.

Are there any side effects?

Common side effects include:

- nausea (feeling sick) for around 30 to 60 seconds after the injection (this tends to pass quite quickly if you take deep breaths)
- pain at the injection site
- dazzle from the camera flashes (this will last about 10 minutes)

If we have used fluorescein for your test, please note that the dye will give your skin a yellow tinge and your urine will be bright yellow for 24 to 48 hours after the test. We recommend drinking plenty of water after the test to flush the dye from your body.

Uncommon side effects include a skin rash or itching.

An extremely rare side effect of these tests is anaphylaxis (a severe allergic reaction) to the dyes. We will monitor you for any side effects during your test(s).

What will happen after the tests?

After your test(s), we will monitor you for side effects for 15 minutes. If you are feeling well, we will remove the cannula from your arm, and you will be able to go home.

You will not be able to drive or travel home on your own after the tests as you will have blurred vision for four to six hours. Please arrange for a responsible adult to come with you to your appointment and take you home.

When should I seek urgent medical attention?

If you feel unwell after you go home, please contact our eye emergency department for advice using the details at the end of this factsheet.

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Go to your nearest emergency department immediately or call **999** for an ambulance if you experience:

- swelling of your throat and tongue
- difficulty breathing or breathing very fast
- difficulty swallowing, tightness in your throat or a hoarse voice
- wheezing, coughing or noisy breathing
- feeling tired or confused
- feeling faint, dizzy, or fainting
- skin that feels cold to the touch
- blue, grey or pale skin, lips or tongue (if you have brown or black skin, this may be easier to see on the palms of your hands or soles of your feet)
- a rash that's swollen, raised or itchy

These can be signs of a serious allergic reaction and may need immediate treatment in hospital.

When will I receive the results?

Your results will be sent to the doctor who referred you for the test(s), and they will discuss these with you at your next clinic appointment.

Contact us

If you have any further questions or concerns, please contact:

Eye emergency department

Telephone: **023 8120 6592** (Monday to Friday, 8am to 7.30pm and weekends, 8am to 6pm)

Outside of these hours, call NHS **111**.

In an emergency, go to your nearest emergency department or call **999** for an ambulance.

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