

Information for patients and carers

**Fundus Fluorescein (FFA) and
Indocyanine Green (ICG)
Angiography**

A decorative graphic at the bottom of the page consisting of three overlapping, wavy bands of blue. The top band is a light blue, the middle is a medium blue, and the bottom is a dark blue.

Name: _____ Date of birth: _____

Please answer the questions below about your health and bring this leaflet with you to your appointment.

Do you have any allergies? Please give details:

Are you allergic to iodine or iodide?

Do you suffer or have you suffered from any of the following conditions?

- | | | |
|---|-----|----|
| 1. Heart problems | Yes | No |
| 2. Irregular heart rate | Yes | No |
| 3. High blood pressure | Yes | No |
| 4. Respiratory conditions | Yes | No |
| 5. Diabetes | Yes | No |
| 6. Epilepsy | Yes | No |
| 7. Kidney problems | Yes | No |
| 8. Liver problems | Yes | No |
| 9. Do you have hyperthyroidism
or a thyroid adenoma? | Yes | No |
| 10. Are you pregnant or breast feeding? | Yes | No |

Please bring a list of any medication you are currently taking to your appointment.

What are fundus fluorescein (FFA) and indocyanine green (ICG) angiography?

FFA are a series of scans of your retinal blood vessels (the blood supply at the back of your eyes) taken after having an injection of yellow fluorescein dye into a vein (intravenous injection).

ICG are a series of scans after an injection of indocyanine green dye which shows the deeper blood vessels of the choroid layer which lies underneath the retina. You will only need an ICG if your ophthalmologist requires information about the choroid layer of your eyes.

If you require both Angiography tests, they can be completed during the same appointment.

What are the benefits of the FFA/ICG procedure?

- To help diagnose your eye condition and decide on best management
- To check on the progression of your eye condition
- To pinpoint areas in need of laser treatment

What do FFA and ICG involve?

When you attend your appointment, a nurse will explain the procedure and ask you to sign a consent form agreeing to the procedure. Please feel free to ask any questions.

Your blood pressure and pulse will be checked before starting the procedure.

You will then have drops put into your eyes to dilate (enlarge) the pupils so that we can get the best possible photographs of the back of the eyes.

A cannula (small plastic tube) will be inserted into a vein in your arm or the back of your hand.

You will be seated at a camera with your chin on a rest. The nurse or doctor will inject one or both dyes in sequence (if required) into your bloodstream through the cannula.

A series of scans (concentrating mainly on the eye you are having problems with) will be taken off the back of your eyes as the dyes pass through the blood vessels. You will see bright flashes of light from the camera. No X-rays or radioactive material is used.

Are there any side effects or risks with FFA and ICG?

- Blurring of vision and light sensitivity due to the dilating drops
- The fluorescein dye will cause your skin to have a yellow tinge, and your urine will be bright yellow, orange or green for 24-48 hours (the indocyanine green dye does not discolour the skin or urine)
- 1 in 10 patients experience nausea 30-60 seconds after the dye injection, however, this tends to pass quite quickly in most people especially if you take deep breaths
- Vomiting (uncommon)
- Fainting or feeling faint 1:100
- Leakage of the dye into the skin from the cannula may cause some discomfort or skin damage
- Skin rash or itching (uncommon)
- Anaphylaxis (a severe allergic reaction) causing breathing or circulatory problems is extremely rare 1:10,000

Are there any alternatives to having FFA or ICG?

Other types of photographs and scans of your eyes are available; however, FFA and ICG provide specific information that is often vital to give the doctor the most accurate information possible. They provide detailed views of the blood vessels at the back of your eyes that are not possible with other types of images. This information can be essential for the most accurate diagnosis to help guide the best treatment for your condition.

How long does the FFA and ICG take?

The fluorescein injection and scans take about 10 -15 minutes to complete; the photographs for ICG can take up to 30 minutes. It is advisable to allow approximately 2 hours for the whole appointment.

Preparation for the procedure

On the day: Please bring sunglasses as your pupils will be dilated and eyes may be light sensitive after. Following FFA, your skin will be sensitive to light for a day. Please bring a hat and long-sleeved clothing to protect your skin from sunlight and possible sunburn. 1 in 100 patients may lose consciousness during the procedure (faint). It is advised to attend with a friend/relative in case you do not feel well enough to go home on your own.

Driving: Do not drive yourself to the appointment as the eye drops may cause blurring of your vision for up to 12 hours.

Eating/drinking/regular medications: You can eat, drink and take your medication as you usually would. After the test, drinking plenty of fluids will help to flush the dye from your body. If you have diabetes, ensure to have your meals and medications as normal and bring a snack with you in case the clinic is very busy and there are delays.

What happens after the angiograms?

You will be asked to stay in the clinic for 30 minutes after the test to ensure that you have not experienced any side effects. The cannula will then be removed, and you may then go home.

The scans will be reviewed by your ophthalmic doctor after the appointment. You will be informed of the results either at a follow-up clinic appointment or by letter.

You should avoid having radioactive iodine uptake tests for at least a week after having an ICG as it may affect the results.

Contact details

Should you require further advice or information please contact:

Ophthalmology telephone triage service: **01257 245346**
Monday to Friday 9.00am to 4.30pm

Sources of further information

www.lancsteachinghospitals.nhs.uk

www.nhs.uk

www.accessable.co.uk

www.patient.co.uk

www.lancsteachinghospitals.nhs.uk/veteran-aware

<https://bepartofresearch.nihr.ac.uk/>

All our patient information leaflets are available on our website for patients to access and download:

www.lancsteachinghospitals.nhs.uk/patient-information-leaflets

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If you want to stop smoking, you can also contact Smokefree Lancashire on Freephone **08081962638**

Please ask a member of staff if you would like help in understanding this information.
This information can be made available in large print, audio, Braille and in other languages.

Our patient information group review our leaflets regularly, if you feel you would like to feedback on this information or join our reading group please contact on email address:

patientexperienceandinvolem@LTHTR.nhs.uk

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Division: Surgery

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