# Retinal Angiography

## What is a retinal angiography?

Retinal angiography is when your ophthalmologist takes pictures of your **retina** and **choroid**. He or she can see these parts of your eye more closely with these pictures. This helps them find certain eye diseases, track changes over time and target treatment areas.

### Eye Words to Know

**Retina:** Layer of nerve cells lining the back wall inside the eye. This layer senses light and sends signals to the brain so you can see.

**Choroid:** Part of your eye between the sclera and the retina. The choroid contains blood vessels and connective tissue.

## What happens during retinal angiography?

Retinal angiography is usually done in your ophthalmologist's office. It often takes less than 30 minutes. Here is what will happen:

- Your ophthalmologist or an assistant will put drops in your eyes to dilate (widen) your pupil.
- A colored dye is injected in a vein, usually in your arm. It takes about 10–15 seconds for the dye to travel throughout your body. The dye eventually reaches the blood vessels in your eye.

A patient having fluorescein angiography.

- To look at blood vessels in your retina, your ophthalmologist uses **fluorescein**, a yellowish dye. To look at your choroid, your ophthalmologist uses a dye called **indocyanine green (ICG)**. This is because green is visible through the cells that cover the choroid.
- As the dye passes through your retina and choroid, a special camera takes pictures. These pictures help your ophthalmologist see any problems or where to focus treatment.

## What to expect after retinal angiography

You should have someone drive you home from the doctor's office after retinal angiography. Your vision will be blurry for a couple of hours. This is from the eye drops used to dilate your pupils. Also, your eyes will be very sensitive to light. Bring sunglasses to your appointment.

## Retinal angiography risks and side effects

- When you look at objects, they may seem dark or tinted. This side effect goes away in a few minutes.
- Your skin may look a bit yellow. This happens because the dye travels to all your veins in your body. Your skin will return to its normal color in a few hours.
- Your urine may look orange or dark yellow for up to 24 hours after angiography. This is because your kidneys will filter the dye from your blood.
- You may feel a burn on your skin if dye leaks during the injection. This side effect goes away in a few minutes.
- Although it is rare, you could have an allergic reaction to the dye. People who are allergic to the fluorescein dye may get hives or itchy skin. Very rarely, a person may have breathing or other serious problems. Your doctor can treat allergic reactions with pills or shots.

**People who are allergic to iodine may react to the ICG dye.** Before your retinal angiography, tell your ophthalmologist if you are allergic to things with iodine in them. These include shellfish and the dyes used to take X-rays.

## Summary

Retinal angiography is when pictures are taken of the back of your eye. With these pictures, your ophthalmologist can closely see your retina and other parts of the eye.

A colored dye is injected into your arm, where it travels to blood vessels in your retina. A special camera takes pictures of these retinal vessels when they are lit up with dye. This way your eye doctor can see where there may be problems. He or she also may use these images to help guide treatment.

If you have any questions about your eyes or your vision, speak with your ophthalmologist. He or she is committed to protecting your sight.

Get more information about eye health from EyeSmart—provided by the American Academy of Ophthalmology—at **aao.org/eyesmart**.

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