

# Fluorescein Angiography

*In order to examine the retina more closely, your ophthalmologist will use a diagnostic technique called fluorescein angiography.*

A harmless fluorescent dye is injected into a vein in your arm, where it travels throughout the blood vessels in your body, illuminating them. As the dye passes through the blood vessels in the eye, a special camera takes photographs of the retina.

## Why is fluorescein angiography performed?

Fluorescein angiography helps your ophthalmologist see what is happening in your retina, highlighting any abnormalities that may be present. The images from fluorescein angiography help your doctor decide on the best course of treatment for your condition. The procedure will also be performed to monitor progression of your condition and the effectiveness of treatment. It is used most often to monitor two conditions: **age-related macular degeneration (AMD)** and the effects of **diabetes** on the eyes.

Age-related macular degeneration (AMD) is the leading cause of blindness in Caucasian patients over the age of 65. There are two types of AMD: the **atrophic (dry) form** and the **exudative (wet) form**.

- The **atrophic form** (also called **non-neovascular**) of this condition usually begins with the appearance of drusen (deposits) under the retina. When drusen are present for an extended period of time, the macula (center of the retina) may become thin and stop working properly.
- The **exudative form** (also called **neovascular**) of AMD occurs when abnormal blood vessels begin to grow underneath the retina. These abnormal blood vessels can leak fluid or blood, causing blurred or distorted central vision. Fluorescein angiography helps to pinpoint the leaking blood vessels.

Diabetes, the leading cause of blindness in patients under the age of 65, can also cause the blood vessels of the retina to leak fluid or blood. Fluorescein angiography helps your ophthalmologist identify these defective vessels.

## How is fluorescein angiography performed?

1. Special drops will be put into your eye to make your pupil dilate (open).

2. Your ophthalmologist or an assistant will insert a small needle into a vein in your arm and inject the dye.
3. A special camera will take pictures of your retina. The camera will shine a dim blue light into your eye, which causes the dye traveling through the blood vessels in the retina to appear fluorescent green. A series of pictures will be taken, which your ophthalmologist reviews later.

### **Are there any side effects?**

You may experience some of the following symptoms after fluorescein angiography:

- Your eyes may be sensitive to light due to the dilation of your pupils. Bring sunglasses with you to your appointment.
- Your vision may be blurry due to the eye drops you received. It is a good idea to have someone drive you home afterwards.
- Your vision may appear darker or have a colored tint afterwards. This will last only a few minutes.
- After the fluorescein dye is injected, your skin may turn yellowish for several hours.
- Because your kidneys remove the dye from the body, your urine will turn dark orange or yellow for up to 24 hours following the test.

### **Note:**

Allergic reactions to fluorescein dye are rare. If they occur, they may cause a skin rash, itchy skin, or breathing difficult. This is usually treated with oral or injectable antihistamines, depending on the severity of the symptoms.