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Fluorescein eye stain

This is a test that uses orange dye (fluorescein) and a blue light to detect foreign bodies in the eye. This test can also detect damage to the cornea. The cornea is the outer surface of the eye.

How the Test is Performed

A piece of blotting paper containing the dye is touched to the surface of your eye. Sometimes the dye comes in a drop form which also contains anesthetic. You are asked to blink. Blinking spreads the dye and coats the tear film covering the surface of the cornea. The tear film contains water, oil, and mucus to protect and lubricate the eye.

The health care provider then shines a blue light at your eye. Any problems on the surface of the cornea will be stained by the dye and appear green under the blue light.

The provider can determine the location and likely cause of the cornea problem depending on the size, location, and shape of the staining.

How to Prepare for the Test

You will need to remove your eyeglasses or contact lenses before the test.

How the Test will Feel

If your eyes are very dry, the blotting paper may be slightly scratchy. The dye may cause a mild and brief stinging sensation if there is no anesthetic used.

Why the Test is Performed

This test is to:

- Find scratches or other problems with the surface of the cornea
- Reveal foreign bodies on the eye surface
- Determine if there is irritation of the cornea after contacts are prescribed

Normal Results

If the test result is normal, the dye remains in the tear film on the surface of the eye but does not show any abnormal areas.

What Abnormal Results Mean

Abnormal results may point to:

- Abnormal tear production (dry eye)
- Blocked tear duct
- Corneal abrasion (a scratch on the surface of the cornea)
- Foreign bodies, such as eyelashes or dust (foreign object in eye)
- Infection
- Injury or trauma
- Severe dry eye associated with arthritis (keratoconjunctivitis sicca)

Often the test is done to check for any of the conditions listed above.

Risks

If the dye touches the skin, there may be a slight, brief, discoloration. It may stain your clothing or other fabric.

References

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