

Dry Eye

The surface of the eye is protected by tears. Tears are made up of 3 layers: a water layer, a lipid (fatty or oily) layer, and a mucous layer. When there are not enough tears being produced by the eye, or if the tears are lacking in 1 or more of these layers, the eye can feel dry. Dry eye is also called **xerophthalmia**. Dry eye is common and can be related to eye problems or disease affecting the whole body. Dry eye is a frequent adverse effect (side effect) of medications. Dry eye may lead to irritation or inflammation of the **cornea** (the eye's surface) and cause vision problems. Individuals who have dry eye are usually referred to an ophthalmologist. Ophthalmologists are medical doctors with specialized education in the treatment of eye diseases, including surgical procedures on the eye.

SYMPTOMS

- Dryness of the eye's surface
- A gritty or rough feeling in the eye
- Stinging or burning of the eye
- Lots of mucus on the eye's surface
- Few tears, often followed by times of excessive tearing
- Redness or irritation of the eye's surface
- Sensitivity to light
- Blurred vision or tired eyes when using a computer screen or reading for long periods
- Difficulty wearing contact lenses

Symptoms may be worse in places where the air is very dry, such as inside airplanes, in public spaces using heat or air conditioning, or in low-humidity climates (such as a desert). Exposure to irritants in the air, including cigarette smoke or pollution, can make the symptoms of dry eye worse.

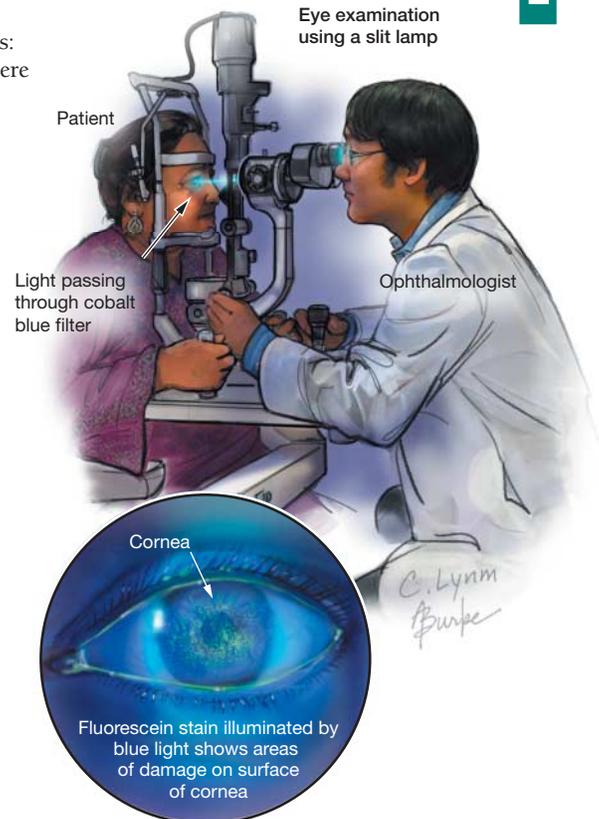
RISK FACTORS

- Many autoimmune disorders are associated with dry eye, including Sjögren syndrome, systemic lupus erythematosus, and rheumatoid arthritis.
- Hormonal changes in women, especially during and after menopause, are associated with dry eye.
- Older persons are more likely to have dry eye.
- Medications, such as beta-blockers and antihistamines, are associated with dry eye. Ask your doctor or pharmacist about the adverse effects of your medications.
- Changes in the cornea can cause dry eye. Some things that cause corneal changes include contact lenses, corneal irritation or infection, corneal surgery, and diabetes.

TREATMENT

Eyedrops, called artificial tears, can be used to help make the eye feel more moist. These are available without prescription. Some specialized eyedrop medications may be prescribed by an ophthalmologist. Lifestyle changes, especially avoiding cigarette smoke and other things that irritate the eyes, can be helpful. Humidifying the air at home or at work may ease dry eye symptoms. For some individuals, a procedure to block tear drainage may increase the amount of tears that stay in the eye.

Sources: National Eye Institute, American Academy of Ophthalmology, Mayo Clinic



FOR MORE INFORMATION

- National Eye Institute
www.nei.nih.gov
- American Academy of Ophthalmology
www.geteyesmart.org

INFORM YOURSELF

To find this and previous JAMA Patient Pages, go to the Patient Page index on JAMA's website at www.jama.com. Many are available in English and Spanish. A Patient Page on Sjögren syndrome was published in the July 28, 2010, issue; one on systemic lupus erythematosus was published in the August 10, 2011, issue; and one on rheumatoid arthritis was published in the May 4, 2011, issue.

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