

# **Corneal Abrasion and Erosion**

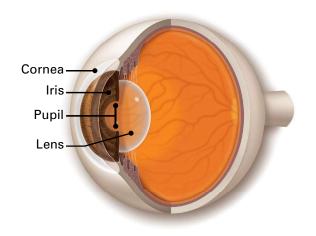
### What is a corneal abrasion?

A corneal abrasion is a scratch, scrape or cut on the surface of your cornea. Fingernails, makeup brushes and tree branches are common culprits of corneal abrasions. Some other causes of corneal abrasion are rubbing your eye and having very dry eyes.

# Eye Words to Know

Cornea: Clear, dome-shaped window of the front of your eye. It focuses light into your eye.

**Epithelium:** Layer of cells that covers the surface of the cornea.



# What are corneal abrasion symptoms?

- The feeling that something is stuck in your eye.
- Red, painful, watery eyes.
- Blurry or hazy vision.
- Being extra sensitive to light.

# How is a corneal abrasion diagnosed?

Your ophthalmologist will put dye called fluorescein on your eye's surface. Then they will look at your cornea with an instrument called a slit lamp. The dye will highlight a cut or scratch on the cornea.

## How is a corneal abrasion treated?

Your ophthalmologist will treat your eye based on what they find in the exam. Following are some options.

- You might wear a patch over your injured eye. This is to keep you from blinking and making the corneal abrasion worse.
- You may use moisturizing eye drops or ointment. This adds a soothing layer over the cornea.
- Your ophthalmologist may prescribe antibiotic eye drops or ointment to prevent an eye infection.

- You may be given special eye drops to dilate (widen) your pupil. This can help relieve pain.
- You may be given a special contact lens to reduce pain and speed healing.

If your corneal abrasion is small, it probably will heal in 1–2 days. A larger corneal abrasion may take about a week to heal.

# Why do corneal abrasions and corneal erosions hurt so much?

The cornea has many nerve cells. Cells called pain receptors transmit pain to tell us about possible damage to the eye's surface. In fact, there are hundreds of times more pain receptors in our cornea than there are in our skin!

#### What is corneal erosion?

Corneal erosion is when the layer of cells on the surface of the cornea, called epithelium, loosens from the layer underneath. This is painful and makes your vision blurry or hazy.

Corneal erosion pain may start suddenly, often when you first wake in the morning. Your eyes get dry while you sleep, and your eyelid might stick to the cornea. If the epithelium is not firmly attached, opening your eyelids might peel the epithelium off.

#### Who is at risk for corneal erosion?

You are more likely to have corneal erosion if you:

- have very dry eyes
- have eyelids that do not close completely when you sleep
- had a corneal abrasion or injury to the cornea
- have a corneal disease (like corneal dystrophy)
- wear contact lenses that are not fitted properly
- wear contact lenses that have not been cared for properly

#### How is corneal erosion treated?

Corneal erosion is treated like a corneal abrasion (see above).

If you get corneal erosion two or more times, your ophthalmologist may recommend other treatment. This could include:

- placing a bandage lens and starting topical antibiotics
- surgery (superficial keratectomy) or laser treatment to remove corneal tissue
- surgery called anterior stromal puncture. Your ophthalmologist will make tiny holes on the surface of your cornea. The scar tissue from these holes binds the epithelium to the layer underneath.

If your eyes are dry and corneal erosion happens often, talk with your ophthalmologist. He or she will discuss ways to keep your eyes moist. This may help prevent corneal erosion.

# Help your eyes heal from corneal abrasion or erosion

Do not rub your eye while it is healing. Rubbing can slow down healing, or even make the problem worse.

Avoid wearing your usual contact lenses while your eye is healing. Ask your ophthalmologist when you can wear your lenses again.

## Protect your corneas.

- Wear safety goggles or other eye protection when mowing the lawn and trimming bushes. Also use them when cutting wood and steel.
- Always wear safety glasses when playing sports.
- Clip your child's fingernails. Babies and children can accidentally scratch their corneas with their fingernails.
- Pay attention when putting on eye makeup or using a hairbrush or curling iron.
- If you wear contact lenses, follow directions for caring for them.

# **Summary**

A corneal abrasion is a scratch, scrape or cut on the surface of your cornea. Corneal erosion is when the top layer of cells on your cornea (epithelium) loosens from the layer under it. Sometimes a corneal abrasion can lead to corneal erosion. Both conditions are painful and make your vision blurry or hazy.

Your ophthalmologist may treat your corneal abrasion or erosion with certain eye drops or ointment. If you continue to have corneal erosion, laser treatment or surgery may be recommended. With both corneal abrasion and erosion, avoid rubbing your eyes.

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 corneal abrasions from EyeSmart—provided by the American Academy of Ophthalmology—at aao.org/corneal-abrasion-link.

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