

Corneal Abrasions

What is a corneal abrasion?

A corneal abrasion is a scratch on the outermost layer of the cornea. The cornea is the clear, dome-shaped part of the front of the eye. You can see the colored part of the eye (iris) and the pupil through the cornea. [See Figure 1]



Fig. 1: A corneal abrasion is a scratch or cut on the surface of the cornea.

Why are corneal abrasions so painful?

The cornea is a very specialized part of the eye. It contains many nerves that send information about pain to the brain. This lets us know that something is wrong, and that we might need care. In some cases, a foreign body on the surface of the eye may cause the corneal abrasion. A corneal foreign body can damage the eye if not removed by a healthcare professional.

How are corneal abrasions treated?

Most corneal abrasions are minor and heal on their own without treatment. Larger corneal abrasions should be treated with antibiotic drops or ointment to prevent infection. Depending on the size of the abrasion, your doctor might recommend a patch be placed over the eye, over closed eyelids on the affected side. An eye should not be patched for more than 24 hours at one time. The patch should be removed at least once a day, or more often, depending on how often antibiotic drops or ointment need to be put in the eye.

How fast do corneal abrasions heal?

In order for the abrasion to heal, a new superficial layer (the epithelium) must grow and cover the damaged area. Therefore, healing time depends on the size of the abrasion and the overall health of the cornea. An abrasion on a healthy cornea should heal in 1-5 days.

How is dye used to detect a corneal abrasion?

A yellow dye called fluorescein is put in the eye in the form of an eye drop. The dye stains the scratch and turns green when examined with a special blue light. [See Figure 2].



Fig. 2: Fluorescent dye can be used to detect a corneal abrasion.

What is a corneal erosion?

The new epithelium that grows when the abrasion heals might re-attach loosely to the deeper layers of the cornea. When this happens, the new epithelium can easily come off again in the area of the original abrasion. This can happen with little or no trauma to the eye. Erosions often occur upon waking up from sleep. They can be as painful as the original abrasion. If you experience pain after a corneal abrasion has healed, you should seek medical care.

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