

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 sensitive 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 need care. In some cases, a small piece of metal or plastic on the surface of the eye may cause the corneal abrasion. A corneal foreign body can damage the eye and should be removed by a healthcare professional.

HOW ARE CORNEAL ABRASIONS TREATED?

Most corneal abrasions are small and heal on their own without a lot of 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 eyelids to close the eye with the abrasion. An eye should not be patched for more than 24 hours at one time. Even after the abrasion heals, your ophthalmologist may recommend an ointment to prevent the corneal abrasion from coming back. Over-the-counter pain medications may help a corneal abrasion feel better while it is healing.

HOW FAST DO CORNEAL ABRASIONS HEAL?

In order for the abrasion to heal, a new top surface layer (called 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 within 1-5 days.

HOW IS DYE USED TO DETECT A CORNEAL ABRASION?

A yellow dye called fluorescein is put on the eye with an eye drop or a thin paper strip. The dye stains the scratch and turns green when a special blue light is shined on the eye. [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 be fragile and easily come off again in the area of the original abrasion. This can happen with little or no trauma to the eye. Erosions often happen when 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.

Updated 03/2023