

Foreign Body

Overview

Anyone who has felt as if there was a grain of sand in his or her eye has probably had a foreign body. Foreign bodies might be superficial, or in more serious injuries, they may penetrate the eye. Fortunately, the **cornea** has such an incredible reflex tearing system that most superficial foreign bodies are naturally flushed out with our natural **tears**. But if the object is more deeply embedded, medical attention is required.



This photo-illustration shows a foreign body in the iris tissue. The patient was hammering a nail (without wearing eye protection) and was struck in the eye by a chip from the nail. Note how the nail chip tore the iris.

Signs and Symptoms

The symptoms of a foreign body may range from irritation to intense, excruciating pain. This is dependent on the location, material, and type of injury.

In rare situations where an object penetrates the eye, there may be few or no symptoms. If you have no symptoms, but suspect an object may have penetrated your eye, it's always best to seek medical attention. The entry point of an intraocular foreign body is sometimes nearly invisible. Depending on their location, foreign bodies inside the eye may or may not cause pain or decreased vision.

- Mild to extreme irritation
- Scratching
- Burning
- Soreness
- Intense pain
- Redness
- Tearing
- Light sensitivity
- Decreased vision
- Difficulty opening the eye

Detection and Diagnosis

The evaluation includes vision testing along with careful examination of the surface of the eye with a **slit lamp microscope**. When a superficial foreign body is suspected, the upper lid should be gently turned up to check underneath for trapped particles. If the foreign body is difficult to see even with a microscope, the doctor may instill a drop of fluorescein dye to highlight the area.

An examination inside the eye with **ophthalmoscopy** may also be indicated depending on the severity of the injury.

Treatment

If a foreign object becomes embedded within the **cornea**, **conjunctiva**, or **sclera**, a medical professional must remove it. Attempting to remove it yourself is dangerous and could result in a permanent scar that could affect your vision.

Superficial foreign bodies are usually treated in the office. After numbing the eye with topical anesthetic, the particle is carefully removed using a microscope. Afterward, antibiotic medications are generally prescribed to prevent infection. In some cases, foreign bodies become trapped underneath the **eyelid**. It is extremely important to examine under the eyelid for any remnant particles.

Intraocular foreign bodies typically must be removed in the operating room using a microscope and special instruments designed for working inside the eye. These injuries are often vision threatening and should be treated quickly.

Wearing appropriate safety glasses is the best way to prevent this type of injury. Protecting the eyes is especially important when working with machinery that could cause chips of wood or metal to splinter, as well lawn equipment such as hedge and line trimmers.

If a particle of wood, glass, metal or any other foreign substance becomes trapped in your eye, here are some tips:

1. Do not touch or rub your eye! This can embed the object more deeply, making it more difficult to remove.
2. Keep your eye closed as much as possible. Blinking only increases the irritation.
3. Do not try to remove the object yourself. This is very dangerous and may make the problem worse.
4. Seek professional help immediately.
5. Tell your doctor what you were doing at the time of the injury, or what materials you may have been working with.