Corneal Foreign Bodies

This will help you understand corneal foreign bodies and how they are diagnosed and treated.

What is a corneal foreign body?
A corneal foreign body is a foreign object on or in the cornea, like a piece of metal, wood, plastic, glass or sand. The cornea is the clear domed window in the front of the eye (see picture on the right). Its main job is to help focus light as it enters the eyes.

What causes a corneal foreign body?
Most often, a foreign object enters the cornea through some type of eye trauma during an accident. For example, sand may enter the eye because of wind. When metalworkers are grinding metal, small flecks of metal can fly off and get stuck in the cornea. If someone is chopping wood, a piece can fly off and get stuck in the cornea.

Most often, tearing and blinking will remove foreign material from the eye. However, sometimes a small fragment gets stuck in the cornea. This may lead to scratches on the cornea (abrasion), or possibly eye inflammation. If it is not removed and treated with antibiotics, it may also lead to an eye infection.

Those who have a corneal foreign body may notice:

- Eye pain
- Foreign body sensation, as if a grain of sand is in the eye
- Excessive tearing
• Redness
• Light sensitivity
• Decreased vision

How are corneal foreign bodies treated and prevented?
Your eye doctor will examine your eye using a slit lamp microscope. S/he will find where the foreign body is located and how deep it has entered the cornea. S/he will then remove it with special instruments in the office. This helps to prevent any further injury or infection. If your eye doctor is worried that the foreign body may have entered into the eye, s/he may order imaging studies such as X-rays, ultrasound or CT scans to further evaluate the inside of the eye.

Antibiotic eye drops or ointment are then prescribed to help with healing, and to prevent or treat infection.

To prevent corneal foreign bodies in the future, it is important to always wear protective eyewear when there is risk of an eye injury. Wearing protective eyewear is especially important for outdoor activities. The wind can also blow small particles into the eye.

Activities that put you at risk of something getting into the eye:
• using equipment such as a metal grinder or wood saw
• mowing the lawn or using a snowblower (going over a stick or stone)
• working under a car
• working on anything above you, such as ceiling tiles

Proper eyewear should be made of polycarbonate, a shatter-resistant plastic found in many safety glasses and goggles. Safety goggles can be found at hardware stores and sports goggles can be found at sporting goods stores.