

# CHILDHOOD EYE INJURIES

Trauma is a significant cause of visual loss in children in Jamaica. Eye injuries can be very costly to treat, and often leave children with a lifelong disability, or the possibility of developing complications later on in life. Prevention of eye injuries can go a long way to reducing the incidence of visual impairment, without being very expensive.

The most common causes of childhood eye injuries may be classified as follows:

## Blunt Eye Trauma

Blunt trauma is due to a direct blow to the eye, by a blunt object. Usually the eye ball remains intact, but there can be very serious internal damage to the eye, which can result in visual loss. It can cause damage, not only to the eye, but also to surrounding tissues, e.g. eye lids, orbital bones, sinuses.

Common causes of blunt trauma to the eye are cricket, tennis and squash ball injuries, fist or elbow injuries, stones, and other missiles, belt buckle and bungee cord injuries.

ALL cases of blunt trauma should be seen by an ophthalmologist, who can examine the eye and identify any serious damage. Sometimes, the damage may not present until days, weeks, months or even years after the injury. A child with a history of blunt eye trauma, even after they are feeling better, should have their eye examined by an ophthalmologist at least annually, for the rest of their life.



Cricket, tennis, squash ball injuries



Fist, elbow injury



Belt buckle, bungee cord injuries



Stone, missile injuries

## Penetrating Eye Injury

A penetrating eye injury is one which breaches the wall of the eye ball. It is usually caused by a sharp object. These injuries are often very serious, because apart from the damage that they cause to the ocular structures, they can also cause infection to get into the eye ball. Even when these injuries heal, they almost always heal with a scar, which can reduce vision considerably, especially if the cornea, the clear window in the front of the eye, is affected.



Objects that commonly cause penetrating eye injuries include sticks or twigs, nails or screws, pencils, pens, ice picks, compasses, fish hooks, scissors, knives, metal coat hangers.

## Chemical Eye Injury

Chemical injuries are common, and easily prevented. They are caused by chemical agents spilling or splashing into the eye. These can cause burns and scarring on the front of the eye, resulting in blindness, if severe.

Common agents that cause chemical eye injuries include bleach, acid, gas or kerosene. In chemical eye injuries, first aid is most important, and can affect the final outcome. The most important part of treatment, is to flush out the chemical with as much clean water as possible, usually for a period of 15 minutes, even before seeking medical attention.



## Motor Vehicle Accidents

Motor vehicle accidents account for a large percentage of childhood eye trauma. All three types of childhood eye injuries can be caused by motor vehicle accidents, blunt trauma, penetrating injuries and chemical injuries. By having children travel in a car seat, or using a seatbelt, may eye injuries as a result of motor vehicle accidents can be minimized.

# Prevention of Childhood Eye Injuries

- Keep all sharp objects out of the reach of children.
- Keep all chemicals out of the reach of children. For older children who will be handling chemicals e.g. chemistry students, protective goggles are advised.
- Check all toys for sharp or pointed parts.
- Take precautions when using pointed implements eg. scissors, knives, ice picks, hangers.
- Avoid games with missiles e.g. bows and arrows, darts.
- Insist on eye protection i.e. goggles, protective glasses, in ball and contact sports.
- Teach children never to throw stones, and especially not at other people.



- Avoid fireworks.
- Ensure that children are in age appropriate car seats, boosters or seat belts, when travelling in motor vehicles.
- Never hit a child with a belt; many children have lost vision permanently because they were hit with a belt, and accidentally caught in the eye.

## First Aid

In the event that there has been an eye injury,

- Do not rub or put pressure on the eye.
- Do not try to remove an object, which is stuck or protruding from the eye.
- Do not apply ointment or medication to the eye.
- Gently cover any cut or puncture wound with clean gauze.
- If there is a chemical injury, flush the eye with clean water.
- Seek medical help as soon as possible.



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