The Morgan® Lens
MorTan® Inc.
An ISO Registered Company

Ocular Irrigation Fact Sheet #4

Pediatric Use of the Morgan Lens

Ocular chemical burns in children often result from splashes, sprays, or from fingers and other contaminated objects. Any exposure (or suspected exposure) to an acid or alkali should be irrigated until the pH of the eye returns to neutral.

Capsules of concentrated detergent have become a major source of ocular chemical burns in young children. The packets resemble candy and are frequently stored in accessible locations. They contain alkalis and may cause serious ocular burns if squeezed or punctured.

Other common sources of alkalis include cleaning products and exploding automobile airbags.

Acid burns often result from car batteries, nail polish removers, and certain cleaners.

Glass polishes contain hydrofluoric acid and injuries are very serious and should be treated like alkali burns.

For Additional Information visit:
www.morganlens.com

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Can the Morgan Lens be used on children?

Yes. Dr. Morgan used the Morgan Lens on children as young as six months of age. Although eye irrigations are traumatic for patients of all ages, they're especially hard for young children who are often unable to understand the procedure and can't cooperate.

Many doctors and nurses have shared their stories of how the use of the Morgan Lens makes eye irrigation with children much less stressful and can actually soothe the child.

Why is the Morgan Lens preferred by pediatricians?

Due to blepharospasms and photophobia, the natural response to an ocular chemical injury is to squeeze the eye shut. The Morgan Lens is the only method of eye irrigation that allows the eye to be closed, even tightly, while solution is being delivered to all regions of the eye and inner eyelids.

Irrigation with the Morgan Lens is calming for the patient, and allows the irrigating solution to quickly soothe the injured eye.

"One Size Fits All"

Eyes grow relatively little throughout our lifetimes, with the length of the palpebral fissure (the horizontal opening between the eyelids) only increasing about 3 or 4 mm (infants: 24-25 mm; adults: 28-30 mm). Since the Morgan Lens is 23 mm long, it is able to fit through the palpebral fissure even in a child.

If necessary, the lens can be rotated slightly when inserting to help it slip between the eyelids more easily.

Lactated Ringer's may increase comfort

Lactated Ringer's (LR) Irrigation solution (very similar to Hartmann's solution and also called Ringer's lactate) is a buffering solution with a pH similar to that of the eye.

Studies have shown that LR is more comfortable for the patient, especially when used with the Morgan Lens.

"The Morgan Lens has never let me down. It does exactly what it's supposed to do and I have had absolutely no problem with it. **It's especially appreciated when caring for young children."**
Physician, California

Children can be held in a parent's lap while irrigation is underway with the Morgan Lens, further calming the child

pH comparison:

Human tears:
6.5 to 7.6
(average: 7.1)

lactated Ringer's:
6.0 to 7.5

Normal Saline:
4.5 to 7.0

Tap Water:
5 to 8

Additional ocular anesthetic may be added without removing the lens--pinch the tubing and instill drops into the cul-de-sac.

A Case Study:

Titus, the 16-month-old son of an ER nurse, received an ocular chemical burn when his 3 1/2 year old brother discovered a cleaning solution (above the washing machine!), the only bottle in the house without a child-proof lid. Both eyes were flushed at home for 3 to 5 minutes before he was taken to the ED. Once there, Alcaine drops were instilled, Morgan Lenses inserted into both eyes and irrigation started with lactated Ringer's. Titus promptly fell asleep.

To quote his mom, "If I can use it on my own child and trust it--so can anyone!"

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