

Fireworks and Eye Safety:
Don't be a Spectacle

M. Todd Brown, MD
Gaston Eye Associates

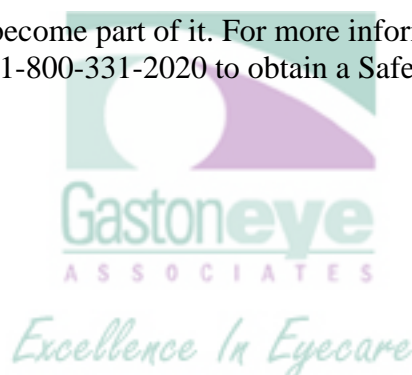
Summertime is not school time but pool time! Enjoying your independence as well as that of Uncle Sam on July 4th, Independence Day is what summer is all about. What better way to celebrate than with fireworks? People of all ages gather to watch the spectacular displays. Some even purchase their own fireworks to set off and display, potentially turning celebration into tragedy. Fireworks are dangerous and should be handled with caution or better yet left to the professionals.

The eye is the second most injured part of the body in fireworks accidents. Such injuries range from the mild-burns, abrasions, foreign bodies to the extensive- loss of eyesight, complete blindness, even loss of the eye itself. Due to the unpredictability of firework devices common sense and even protective eye wear should be considered for prevention of such injuries.

The U.S. Consumer Product Safety Commission offers these eye-opening statistics :

- > Fireworks were involved in an estimated 9,800 injuries treated in U.S. hospital emergency rooms in 2007
- > An estimated 6,300 injuries were treated in hospital emergency rooms during the one-month period surrounding the Fourth of July
- > An estimated 1,400 fireworks-related eye injuries were treated in the same one-month period of 2007
- > Firecrackers accounted for 1,300 injuries, sparklers (1,000)(which can reach 1800 degrees F) and roman candles (800)
- > Males accounted for 70% of fireworks injuries
- > Firecrackers caused the greatest number of injuries in children 14 and younger, followed by sparklers and rockets.
- > Of the 1,100 estimated sparkler injuries, 200 were to children age 4 and younger.
- > 2,600 of the fireworks injuries were to children under age 15.
- > Bystanders are more often injured by fireworks than operators themselves
- > Contusions, lacerations and foreign bodies were the most common eye injuries
- > There were 11 fireworks-related deaths in 2007

Therefore enjoy the show, don't become part of it. For more information contact www.preventblindness.org or call 1-800-331-2020 to obtain a Safe Summer Celebrations booklet.



In case of eye injury it is important to know how to respond properly to prevent further damage to the eye. The severity of the injury needs to be assessed before placing anything in the eye, avoid direct pressure and rubbing of the eye, and place a protective shield over the eye if available. Go to your local Emergency Room or call your eye doctor for evaluation. Prevent Blindness America offers the following quiz for proper procedures:

If one of your children was hit in the eye, would you know what to do?

1. Glass or metal from a bottle rocket strikes a child's eye. There is no bleeding, and the pain goes away quickly.

- a. Ignore it. There is nothing wrong.
- b. Apply ointment or rinse out the eye.
- c. Take the child to the emergency room.

2. After an accident, the child is in terrible pain and wants to rub the eye. What should you do?

- a. Let the child rub the eye.
- b. Do not let the child rub the eye and go immediately to the emergency room.
- c. Give a pain reliever as soon as possible.
- d. Apply ointment right away.

3. The child's eye has been hit by an exploding bottle rocket, sparkler or another type of fireworks device. First:

- a. Tape or secure some type of protective patch against the bones around the eye area and go immediately to the emergency room.
- b. Apply ointment right away.
- c. Rinse out the eye right away.

4. What is the best pain reliever to give to the child on the way to the hospital?

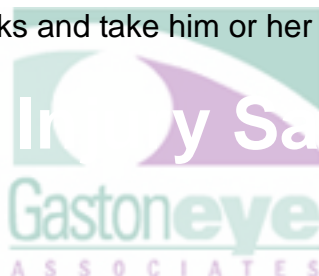
- a. Aspirin.
- b. An ibuprofen-based pain reliever.
- c. Do not stop for pain relief medication.

5. Which of these is the wrong thing to do for a child's injured eye?

- a. Apply ointment.
- b. Keep the child calm.
- c. Tape a patch against the bones surrounding the eye.

6. Your child's friends are going to set off fireworks, and your child wants to play too. You:

- a. Remember that bottle rockets can stray off course or throw shrapnel when they explode.
- b. Keep in mind that about half of all fireworks injuries happen to bystanders.
- c. Insist that the child avoid fireworks and take him or her to a professional fireworks display.



Excellence In Eyecare

ANSWERS:

1. c. Get the child to the emergency room. An impact injury, caused by something slamming into the eye can lead to damage that your child cannot immediately feel and you cannot see. Vision loss, even blindness, could occur within hours or days. Only an eye doctor's examination of the interior eye can reveal the result of an impact injury.
2. b. Do not let the child rub the eye. Rubbing the eye may increase bleeding or worsen the injury.
3. a. Tape or hold a protective shield against the bones surrounding the eye. Do not apply pressure to the eye itself. Using a foam cup or the bottom of a paper juice carton are just two tips. Protecting the eye from further contact with any item, including the child's hand, is the goal.
4. c. Don't stop for medication. Over-the-counter pain relievers will not do much to alleviate pain. Aspirin (which should never be given to children) or ibuprofen can thin the blood, increasing bleeding. Take the child to an emergency room right away; this is more important than stopping for a pain reliever.
5. a. Do NOT apply ointment. Ointment makes the area around the eye slippery and harder for the doctor to examine. Ointment may also not be sterile.
6. a-c. All of the answers are correct.



Excellence In Eyecare