

## Fireworks: Celebrate with Caution!

It is appropriate that June is deemed Fireworks Eye Safety Month by the American Academy of Ophthalmology as the Fourth of July looms on the calendar meaning spectacular displays of color and noise courtesy of fireworks. Unfortunately, decades of accidents have demonstrated that celebratory fireworks can be dangerous. Fireworks were responsible for 19 fatalities in 1999.

According to the United States Eye Injury Registry, approximately 12,000 Americans are seen annually in emergency rooms for fireworks-related injuries. Thirty percent of the trauma consists of burns to hands, wrists, and arms and twenty percent of injuries to the eye. Fifty percent of these accidents occur around the Fourth of July holiday.

About one-half of the victims are bystanders, and nearly 400 individuals lose vision in one or both eyes each year. Children (15 years and younger) suffer more than fifty percent of all fireworks injuries. Ten percent of them sustain permanent damage such as loss of an eye, finger or hand.

Most injuries occur with legal fireworks. Currently, legal fireworks bear the manufacturer's name, the words "class C common fireworks", and a warning label. If any of these items are missing from the packaging, the fireworks are illegal and NOT to be used.

Illegal fireworks, bottle rockets and roman candles account for the most fireworks injuries. One study suggested that bottle rockets cause more than 70% of eye injuries with about two-thirds occurring at home. Even seemingly harmless fireworks such as sparklers are dangerous. Sparklers cause more than fifty percent of all fireworks injuries in children under 5 years old who love to play with these sticks of fire which can heat up to 1800° F (sufficient to

melt gold!). As an eye injury can be a life-altering event, it's a devastating price to pay for a few moments of fun.

Since fireworks-related eye injuries are preventable, here are a few guidelines to follow to ensure a safe celebration. NEVER allow children to play with fireworks and ALWAYS provide adult supervision when older youths use fireworks. NEVER use illegal or homemade fireworks and avoid bottle rockets. DO NOT put fireworks in glass containers, clay pots, tin cans or other objects that can similarly shatter. There should ALWAYS be a fire extinguisher or large source of water in the immediate vicinity in case of a misfire. Whether you are an operator or spectator, ALWAYS wear safety glasses or goggles. And if you are a spectator, view the display from a minimum of 500 feet while respecting any erected barriers.

If an accident involving the eye occurs, please follow these steps to minimize damage. DO NOT rub or rinse the eye as more bleeding or worsening of the injury can ensue. DO NOT apply direct pressure to the eye; instead, protect the eye by holding or taping a foam cup or bottom of a juice carton to the area around the eye. The victim should be immediately transported to an emergency room or physician's office; DO NOT stop for an over-the-counter analgesic (e.g. Aleve®, Advil®, etc.) as they can increase bleeding.

If heeded, these educational tips will help minimize the risk of fireworks-related eye injuries during the Fourth of July and other celebrations throughout the year. Of course, the safest way to enjoy a fireworks display is to attend a professionally run event.

So this Fourth of July season, remember that old adage "don't play with fire (works)!"