The American traditions of parades, cookouts, and fireworks help us celebrate the summer season, especially our nation's birthday on the Fourth of July. However, fireworks can turn a joyful celebration into a painful memory when children and adults are injured or killed while using fireworks. Although legal consumer fireworks that comply with U.S. Consumer Product Safety Commission (CPSC) regulations can be relatively safe when used responsibly, all fireworks, by their nature, are hazardous and can cause injuries. Fireworks are classified as hazardous substances under the Federal Hazardous Substances Act (FHSA). Some fireworks, such as illegal firecracker-type devices (M-80s, quarter sticks) and professional display fireworks should never be handled by consumers, due to the risk of serious injury and death.

Following are a few examples of recent deaths caused by legal and illegal fireworks:

A 14-year-old victim was discovered lying on the ground with a significant head injury after individuals set two launch tubes about 8 inches apart, lit them and ran away during a holiday celebration at a private residence. After what witnesses described as a “blinding light,” the attendees realized that one of the devices had been shot into the crowd of people. The victim was airlifted to a trauma hospital, and he died 9 days later from his injury.

A 19-year-old female died from smoke inhalation in an apartment fire. The fire started when an 18-year-old male threw a sparkler through a second floor window to get the victim’s brother’s attention. The victim’s brother was actually sleeping downstairs at the time.

A 25-year-old male died of blunt force trauma head injuries. According to witnesses, the victim lit a shell and placed it in a launching tube and held it over his head. The shell went off and hit the victim in the top of the head. The victim fell to the ground instantly. He was transported to a local hospital by emergency responders and was pronounced dead. The victim had been drinking alcohol before the incident.

A 44-year-old male was killed when a mortar shell firework exploded. According to witnesses, after successfully launching three shells with the launching tube on the cement ground, the victim decided to launch the fourth shell while holding the launch tube with his arms extended and the tube pointed in an upward angle. The tube blew up from the back and hit the victim directly in the chest, knocking him backwards eight to ten feet into a fence. He died shortly after the explosion. Medical examiners found the tube’s base plug, which measured 1-7/8” in diameter and 2-1/8” tall, deep inside the victim’s chest.

To help prevent incidents like these, the federal government, under the FHSA, prohibits the sale to consumers of the most dangerous types of fireworks. These banned fireworks include: large reloadable mortar shells, cherry bombs, aerial bombs, M-80 salutes, and larger firecrackers containing more than two grains of powder. Mail-order kits designed to build these fireworks are also banned.

The CPSC lowered the permissible charge in firecrackers to no more than 50 milligrams of powder in a regulation that went into effect on Dec. 6, 1976. In addition, CPSC regulations provide performance requirements for fireworks other than firecrackers intended for consumer use, including a requirement that fuses burn at least three seconds, but no longer than nine seconds. All fireworks must carry a warning label describing necessary safety precautions and instructions for safe use.

CPSC estimates that in 2014, about 10,500 people were treated in hospital emergency rooms for injuries associated with fireworks. Sixty-seven percent of these estimated injuries occurred in a one-month special study period (June 20, 2014 –
July 20, 2014) around July 4. During the 2014 special study, more than half of the fireworks-related injuries were burns. Most of the injuries involved hands and fingers, the head (including face, eyes, and ears), legs and arms. Children under the age of 15 years old accounted for 35 percent of the estimated injuries. Fireworks should be used only with extreme caution. Older children should be closely supervised, and younger children should not be allowed to play with fireworks, including sparklers.

Before using fireworks, make sure they are permitted in your state or local area. Regardless of location, consumers who intend to use fireworks have to comply with federal regulations. Many state and local governments also prohibit or limit consumer fireworks, formerly known as “class C fireworks,” which are common fireworks, and firecrackers sold for consumer use. Consumer fireworks include: shells and mortars, multiple tube devices, Roman candles, rockets, sparklers, firecrackers with no more than 50 milligrams of powder, and novelty items, such as snakes, airplanes, ground spinners, helicopters, fountains, and party poppers.

To help consumers use fireworks more safely, the CPSC offers these recommendations:

-- Do not try to relight or handle malfunctioning fireworks. Soak them with water and throw them away.

-- Be sure other people are out of range before lighting fireworks.

-- Never light fireworks in a container, especially a glass or metal container.

-- Keep unused fireworks away from firing areas.

-- Store fireworks in a cool, dry place.

-- Check instructions for special storage directions.

-- Observe local laws.

-- Never have any portion of your body directly over a firework while lighting.

-- Do not experiment with homemade fireworks.

MAIL-ORDER “MAKE- YOUR-OWN” FIREWORKS KITS AND COMPONENTS -- DESIGNED TO BUILD BANNED FIREWORKS -- ARE PROHIBITED BY LAW.

Following is a summary of state regulations as of June 1, 2015, according to the American Pyrotechnics Association.

Fireworks are regulated by both states and local jurisdictions. To ensure full compliance with state and local laws, check with your local government (such as your police or fire department) for detailed requirements. Please note that local requirements may supersede state laws.

I. STATES THAT ALLOW SOME OR ALL TYPES OF CONSUMER FIREWORKS (formerly known as class C fireworks), APPROVED BY ENFORCING AUTHORITY, OR AS SPECIFIED IN LAW (43 states, District of Columbia and Puerto Rico):

Alabama  Montana
Alaska    Nebraska
Arizona   New Hampshire
Arkansas  New Mexico
California New York
Colorado  Nevada
Connecticut  North Carolina
Florida  North Dakota
Georgia  Oklahoma
Hawaii  Oregon
Idaho  Pennsylvania
Indiana  Rhode Island
Kansas  South Carolina
Kentucky  South Dakota
Louisiana  Tennessee
Maine  Texas
Maryland  Utah
Michigan  Virginia
Minnesota  Washington
Mississippi  West Virginia
Missouri  Wisconsin
Wyoming

(The District of Columbia and Puerto Rico, in addition to the above states, enforce the federal regulations and applicable state restrictions.)

II. STATES THAT ALLOW ONLY SPARKLERS AND/OR OTHER NOVELTIES (Total of 4 states):
Illinois  Ohio
Iowa  Vermont

III. STATES THAT BAN ALL CONSUMER FIREWORKS (including those that are allowed by CPSC regulations) (Total of 3 states):
Delaware  Massachusetts
New Jersey

To report a dangerous product or a product-related injury, log on to: www.saferproducts.gov, or call CPSC’s hotline at (800) 638-2772, or CPSC’s teletypewriter at (800) 638-8270, or e-mail info@cpsc.gov.

Consumers can obtain press releases and recall information at CPSC’s website at: www.cpsc.gov.

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06/15