Fireworks FACT SHEET

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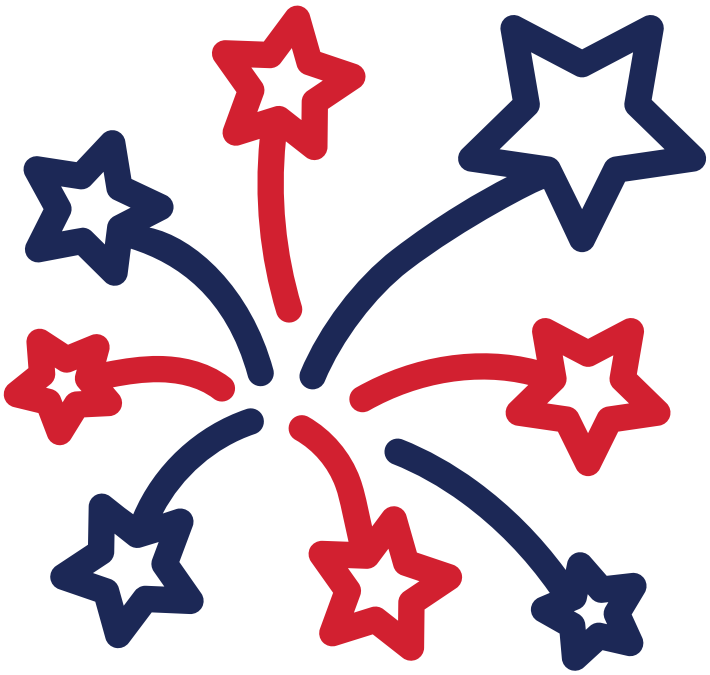
U.S. CONSUMER PRODUCT SAFETY COMMISSION

Fireworks Safety

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 illegal fireworks:



Fireworks – Related Deaths 2017–2018

- **A 16–year–old male from Florida died after a mortar tube exploded in his hand on July 5, 2018**. According to the police report, the victim's cousin lit the charge of a mortar and placed it in the tube and backed away. The victim then picked up the tube and held it in his left hand. As the cousin went to tell the victim to put the tube down, the tube exploded in the victim's hand and knocked the victim down. The victim suffered a penetrating open wound, approximately 2 inches in diameter to the upper left chest, as well as, flash burns on his face, neck, and chest. In addition, the victim's left thumb was only attached to his hand by skin. The victim was transported to a hospital via an ambulance, where he was pronounced deceased in the emergency room. The cause of death was penetrating shrapnel wound of chest with perforation of heart and lung.

- **On July 7, an 18–year–old male from Iowa was setting off fireworks with his friends at his residence**. According to the sheriff's report, an adult friend decided to tape a tube to a football helmet using duct tape. This friend then placed the helmet on his head and launched several fireworks from the helmet. This friend did not experience any incidents while doing so. without incident. The victim stated he also wanted to launch fireworks from his head then followed suit and taped a tube to a second helmet. The victim placed the helmet on his head, loaded the tube, and successfully launched one mortar shell from the tube while it was atop of his head. The victim loaded the second mortar in the tube and ignited it, but the shell became stuck in the tube and didn't launch. The mortar exploded in the tube atop of the victim's head a few seconds later and caused the victim to fall to the ground. Bystanders provided first aid to the victim until first responders arrived. The victim was taken to a local hospital and later transported to a medical center where he died the next day due to his injuries.

- **A 37–year–old male from Indiana died of massive head trauma caused by professional grade Class 1.3G mortar shells on July 7, 2018**. According to the police report, the victim and another man were at the end of a residential driveway together. They put 3–inch mortar shells with altered fuses into yellow PVC tubes and tied wicks together attempting to light them off at the same time. The original electronic fuse for the mortar shells was replaced with a length of cannon fuse and attached to the shells with blue painter tape. The victim stood directly over the tube and lit the fuse. The mortar ignited and struck the victim on the head causing a fatal injury. The other male suffered a serious injury to his head, as well, and was hospitalized. Law enforcement authorities confiscated all fireworks found at the scene.

- **On the night of July 4, a 24–year–old male from South Carolina was fatally injured by a reloadable artillery firework at the common area of an apartment complex**. According to the witnesses and police report, the victim put a mortar shell into a launching tube and lit the fuse, and then he held the tube in his right hand and pointed it towards the far end of the common area outwards. The firework exploded in the tube and the victim fell to the ground. Bystanders called the county dispatch, and emergency first responders were dispatched to the location. The first responders where they provided life–saving measures to the victim. The victim was transported to a local emergency room where he was and later pronounced deceased later dead. The cause of death was determined to be blunt force injury of the chest.

- **On the New Year's Eve of 2018, a 49–year–old male from Texas died of explosive injuries while shooting fireworks**. The incident occurred at the victim's home. It was reported that the victim apparently launched artillery shells from a device on his shoulder. When the victim lit the firework device, there was a blast that caused injuries to the victim's shoulder and chest. The victim was transported to a local hospital but he died en route. The cause of death was explosive injuries, including fractures of multiple ribs, lacerations of the right lung and chest. According to the County Attorney, this incident is still under investigation, and no other information could be released.

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 December 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 2017, about 12,900 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 16, 2017 – July 16, 2017) around July 4. 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 36 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 must 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** allow young children to play with fireworks. Sparklers, a firework often considered by many to be the ideal "safe" device for the young, burn at very high temperatures and should be not be handled by young children. Children may not understand the danger involved with fireworks and may not act appropriately while using the devices or in case of emergency.
- Older children should be permitted to use fireworks only under close adult supervision. **Do not** allow any running or horseplay.
- Set off fireworks outdoors in a clear area, away from houses, dry leaves, or grass and other flammable materials.
- Keep a bucket of water nearby for emergencies and for pouring on fireworks that fail to ignite or explode.
- **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.

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Fireworks are regulated by states and by 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** (46 states, District of Columbia and Puerto Rico):

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

(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 3 states):

Illinois Ohio Vermont

III. STATES THAT BAN ALL CONSUMER FIREWORKS (including those that are allowed by CPSC regulations) (Total of 1 state):

Massachusetts

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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