

# How safe are fireworks? Even sparklers can cause serious injuries

29 June 2018, by Sheerah Coe



Credit: University of North Carolina at Chapel Hill School of Medicine

The 4th of July is a time to celebrate, but injuries from fireworks lead to approximately 11,000 visits to the emergency department each year, and over 30 percent of them involve children.<sup>1</sup> The majority of disabling injuries occur with illegal firecrackers, but most injuries involve legal fireworks that parents buy for their children, such as sparklers, firecrackers, bottle rockets, and Roman candles.

In 2016, 69 percent of all emergency department-treated injuries related to fireworks were burns. And burns were the most common [injury](#) to all parts of the body, except injuries to the eyes, where cuts and bruises occurred more frequently. To help reduce the number of burn injuries and potentially blinding fireworks accidents this July 4, the North Carolina Jaycee Burn Center Burn Prevention Program and UNC Kittner Eye Center

are working to share important fireworks safety information.

Here are five fireworks facts they want you to know:

- Sparklers are NOT safe for young children. Sparklers burn at 1,800 degrees, hot enough to melt some metals. Sparklers are responsible for most of the injuries to children age 5 and younger.<sup>1</sup>
- It's not necessarily safer to view consumer fireworks than it is to light or throw them. Bystanders are injured by fireworks as often as fireworks operators.
- Consumer fireworks are not always safe. Sparklers and firecrackers each account for 1,400 injuries to the eyes annually. The parts of the body most often injured were hands and fingers (an estimated 33 percent); head, face, and ears (an estimated 20 percent); legs (an estimated 18 percent); eyes (an estimated 9 percent); and arms (an estimated 8 percent).<sup>1</sup>
- It is not safe to pick up a firework after it has been lit. Even though it looks like a dud, it may not act like one.
- The Fourth of July can still be a "blast" without using consumer fireworks. The safest way to view fireworks is to watch a professional show. UNC Health Care has been a sponsor of the Chapel Hill fireworks display at Kenan Stadium since 2012.

If you experience a fireworks injury related to a burn, the Jaycee Burn Center urges you to treat the burn immediately by doing the following:

- Remove all clothing, jewelry, or anything that can hold in heat off the body.
- Cool the burn approximately 3-5 minutes with cool (not cold) water.
- Do not use ice, Vitamin E, or other home remedies as these may make the injury worse.

- If it is a small burn, about the size of a quarter, wash gently with soap and water daily. Then apply a small amount of triple antibiotic ointment (available over the counter at drug stores or supermarkets) to the area and cover with a bandage until healed.
- You should seek [medical attention](#) if the burn is larger than the size of a quarter, is over a joint, or has occurred over parts of the body such as the eyes, ears, hands, or feet.
- You should also seek medical attention if the burn has a beefy red appearance and is causing extreme pain, or may have a waxy white appearance of any size with no pain in the burned area.

If you experience a [fireworks](#) injury to the eye, ophthalmologists urge you to minimize the damage by doing the following:

- Seek medical attention immediately.
- Do not rub the eye. Rubbing may make the injury worse.
- Do not attempt to rinse the eye.
- Do not apply pressure to the eye.
- Do not remove objects from the eye.
- Do not apply ointments or take pain medications before seeking medical help.

Provided by University of North Carolina at Chapel Hill School of Medicine

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