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Hospitals await surge of fireworks burns and injuries with July 4 holiday

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Thousands suffer wounds from fireworks, according to federal statistics. Dr. Erica Hodgman of Johns Hopkins Children's Center talks about fireworks and injuries.

Dr. Erica Hodgman knows what's coming.



Erica Hodgman, MD, director of the pediatric burn program at Johns Hopkins Children's Center

As July 4 approaches, "We see the surge start to come in," says Hodgman, MD, director of the pediatric burn program at Johns Hopkins Children's Center.

She's anticipating seeing plenty of kids - too many kids - in the emergency room with burns from fireworks around the July 4 holiday.

Even some of the more minor injuries are tough for parents, Hodgman tells Chief Healthcare Executive®.

"They're really stressful for families," she says. "It's not easy to do a dressing change on your screaming 3-year-old."

Some of the injuries involve teenagers handling fireworks, or they're hurt from a family member using fireworks, or, in some cases, starting fires.

"This doesn't happen every year, but every couple of years, we'll get some really big, really bad injuries, where maybe somebody had a cherry bomb go off in their hand or in their pocket," Hodgman says. "The most devastating thing would be like sparks or embers from a firework or from a bonfire or something will cause a house fire, and we'll get some really big burns, and those are always really devastating."

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to eight deaths,

Teenagers between 15 and 19 years of age had the highest rate of fireworks-related injuries in emergency departments, followed by children 5-9 years old, the commission said. More than 40% of the fireworks burns involve the head, eyes and ears, and 35% occur on the hands and fingers.

When asked which seemingly safe fireworks are in fact dangerous, Hodgman says, "All of them, pretty much."

'Essentially a welding torch'

Even sparklers, which are commonly handed to kids at July 4 gatherings, can reach temperatures of 1,800 to 2,000 degrees, she says.

"It's essentially a welding torch," Hodgman says. "Like, why would you hand your toddler a welding torch? You wouldn't. And, we'll see them either accidentally light a shirt or their shorts on fire with them, or if they touch the skin, they'll get what is essentially a really tiny, but very deep burn."

Some fireworks injuries also come when people are drinking or using other substances. While that's common with adults, Hodgman says, "With some of our teenagers, we see that, too."

While handling fireworks is dangerous enough, the risk rises with impaired judgment and reflexes and "really unfortunate things can happen," Hodgman says.

"Unfortunately, we do see injuries where the adult was intoxicated and setting off the fireworks and caused an injury to a child," Hodgman says. "And those, they're always kind of hard to stomach, because it just didn't need to happen."

MedStar Health says the injuries begin even before July 4. Surgeons at the Curtis National Hand Center begin treating severe hand injuries in the days before the holiday, the Maryland system said in a news release.

"Unfortunately, the hand often bears the brunt of the damage. ranging from burns to the traumatic injuries and amputations," Raymond Wittstadt, MD, a hand surgeon at Curtis National Hand Center, said in a MedStar [news release](#). "We can reattach fingers but only if the finger is intact and there's somewhere to replant it."

'It's hard to see'

The Connecticut Burn Center at Bridgeport Hospital says most of the injuries are caused by bottle rockets, sparklers and Roman candles, according to [Yale New Haven Health](#). Most injuries occur when people hold onto the fireworks too long, or they go back and adjust the firework just as it ignites. Typically, the most serious injuries occur with people using illegal firecrackers, such as M-80s.

"While the area of the burn may be small, it can be quite deep since the chemicals involved in fireworks generate an enormous amount of heat. The explosive effect of a fireworks blast can also cause serious soft tissue injury requiring surgery for repair," Alisa Savetamal, MD, medical director of the Connecticut Burn Center at Bridgeport Hospital, said in a statement.

Doctors and nurses regularly see serious injuries in emergency departments, but Hodgman says it's tough to see kids with burns from fireworks, since the injuries are so unnecessary and preventable.

"It's hard to see, and it's really hard to see the impact on the whole family, because there's usually a lot of guilt on the part of the parents, too," Hodgman says. "You know, 'I should have watched my child more closely, I should have kept the fireworks out of reach. I should have not handed them the sparkler,' things like that. You know, it just doesn't get easier, I'll tell you that."

When it comes to fireworks, Hodgman urges families to leave it to the pros.

"We always recommend, if you really want to see fireworks, go to a professional display, go to the big display in town, or come down to the city and see them," she says. "It's always going to be more impressive than whatever you bought from the roadside stand anyways, and certainly a heck of a lot safer."

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