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Sparklers — yes, sparklers — are the most frequent cause of fireworks injuries

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The relatively tame sparkler is the most common source of fireworks-related injuries.

By Matt Rocheleau

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Millions of Americans will watch a fireworks display — or perhaps launch some of their own — to

mark the Fourth of July holiday.

The pyrotechnics can be dazzling, but they can also be dangerous, particularly at this time of year. Even the relatively tame sparkler has its risks; it's the most common source of fireworks-related injuries.

About two-thirds of fireworks injuries happen each year in a one-month span surrounding July 4, statistics show, though injuries caused by public display fireworks are exceedingly rare. Most accidents happen with store-bought items detonated by amateurs.

On average, the US sees 7.4 fireworks-related deaths per calendar year, and another 10,000 injuries, over the past decade and a half, according to data and estimates tracked by the US Consumer Product Safety Commission.

At least 11 people were killed by fireworks last year, according to the commission, including [a 22-year-old Maine man who died](#) on July 4 after igniting a firework on top of his head.

Last year, emergency rooms around the country treated an average of 267 fireworks-related injuries per day in the 30-day span between June 19 and July 19.

Massachusetts is [one of only three states](#) with a complete ban on consumer fireworks, but [accidents and injuries still occur](#) here.

Between 2006 and 2015, there were 775 major fire and explosion incidents involving illegal fireworks in Massachusetts, and 47 people were treated at emergency rooms statewide for severe burns from fireworks, according to the [Office of the State Fire Marshal](#).

The federal product safety agency says its data shows no discernible trend when it comes to the number of fireworks



related injuries nationwide each year, but the statistics also shed light on some of the risk factors associated with pyrotechnic mishaps.

The majority of people who are injured are male and most are in their early 20s or younger. In fact, one in five people injured are 9 years old or younger.

The most common type of injuries are burns, and people most often injured their hands or head. Misusing fireworks accounts for a majority of injuries, but malfunctions account for a large share, too.

Fireworks-related injuries per year, 2000-2015

While estimates of fireworks related injuries have fluctuated over the years, the safety commission says it has found no statistically significant trend in the data.

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Males accounted for two-thirds of fireworks-related injuries

The following five graphics are based on 33,800 injuries reported in the month around July 4 from 2011 through 2015.

More than half of those injured were 24 years old or younger

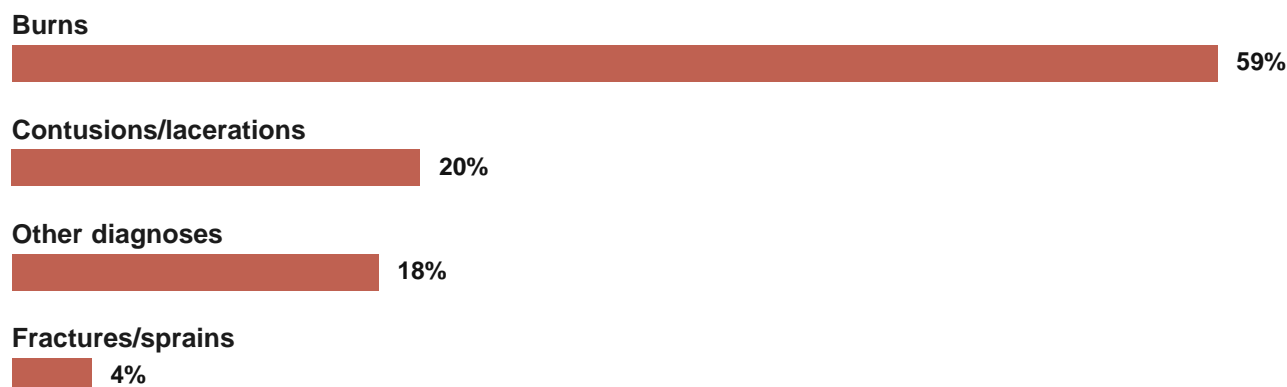
Age ranges	Percent of injuries
0 to 4	9%
5 to 9	12%
10 to 14	10%
15 to 19	13%
20 to 24	11%
25 to 44	34%
45 to 64	10%
65+	1%

Sparklers accounted for the most injuries

Type	Percent of injuries
All firecrackers	16%
—Small firecrackers	5%
—Illegal firecrackers	3%

—Unspecified firecrackers	8%
All rockets	9%
—Bottle rockets	6%
—Other rockets	3%
All other devices	44%
—Sparklers	22%
—Fountains	2%
—Novelties	4%
—Multiple Tube	3%
—Reloadable Shells	10%
—Roman Candles	5%
—Helicopters	0%
Homemade/Altered	1%
Public Display	3%
Pest Control Devices	0%
Unspecified	26%

Burns were the most common type of injury



Hands and head were most likely body regions to be injured



Eye



Leg



Trunk/other



Arm



How people said they got injured

The data here is based on surveys of 171 people who were injured in the five-year period from 2011 through 2015.

How injured	Percent
Misuse	52%
—Igniting fireworks too close to someone	11%
—Holding fireworks in hand	18%
—Setting fireworks improperly	5%
—Touching lit fireworks	1%
—Holding Lit fireworks too close to other fireworks	1%
—Dropping lit fireworks on other explosives	1%
—Lighting fireworks improperly	3%
—Dismantling fireworks	2%
—Being too close to lit fireworks	4%
—Playing with used fireworks	3%
—Igniting fireworks too close to a tree	1%
—Playing with lit fireworks	2%
—Mischief	1%
—Stacking fireworks on top of each other	1%
—Other misuse	1%
Malfunction	39%
—Errant flight path	13%
—Early or late ignition	8%
—Tip-over	6%
—Blowout	3%

—Debris	7%
—Other malfunction	1%
Other	9%
—Debris	6%
—Smoke	1%
—Ash	1%
—Unknown	1%

SOURCE: US Consumer Product Safety Commission

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