

Home oxygen fires in the United States

Research into the prevalence and impact of home oxygen fires in the U.S.: 2017-2019

BPR Medical examined media reports of home oxygen fires between December 2017 and August 2019 in the U.S. The report recorded a total of 311 incidents during this 20-month period and revealed that the actual home oxygen fire death toll is likely to be double compared with previous estimates by the National Fire Protection Association; between 100 and 150 deaths per year.

Death and injury toll

164 number of deaths recorded

1 death every 4 days

71 number of serious injuries

Risk to public health

1 in 3 incidents referenced an exploding cylinder

11 of the reported deaths were third parties, including family members or other residents

2018 The year a firefighter died when a propane tank exploded due to an oxygen fire

Property damage

\$15.3 million Estimated cost of property damage

61% Proportion of incidents in which a **whole dwelling was destroyed** or severely damaged

There were separate cases where **50, 60, 70, 100 and 110** people were forced to relocate as a result of an incident

Home oxygen fires represent a **much higher risk in the United States** than the United Kingdom, where stakeholders work together to reduce risk and where the fitting of oxygen firebreaks (also known as thermal fuses) is mandatory.

Fatalities per 100,000 patients



A U.S. home oxygen user is twice as likely to die in a home oxygen fire than in Japan, and almost 20 times more likely than in England

19x England **2x** Japan

This new data points towards a material public health problem in the U.S., highlighting the urgent need for better practice and regulation.

* Where firebreaks were not universally mandatory (2013-17)

** 1 death was reported among 73% of the patient population (2013-17)

Sources: National Fire Protection Association (U.S.); Japanese Medical Gas Association; BPR Medical (2019) The prevalence and impact of home oxygen fires in the U.S.