



Fire and Burn Prevention 2021 Resource Guide



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INTRODUCTION

Fires and burns are the fifth leading cause of unintentional injury-related deaths to children ages <1-19 in the US.¹ Nearly 300 children and adolescents die from fire or burn injuries each year,² and over 100,000 are admitted to a hospital or treated in an emergency department.^{3,4} Thermal burns, or burns from flames or hot objects, are the most common type of burns.⁵ Scalding caused by hot liquid or steam are common among young children, while older children are more likely to be burned by direct contact with flames.⁶

While deaths and nonfatal injuries from fires and burns have decreased over the past 20 years, there are still far too many occurrences. Proven prevention practices that can take place in the home, where 80% of civilian fire deaths occur, include properly installing and maintaining smoke alarms, having and practicing an escape plan in the event of a fire, cooking with care and maintaining a safe hot water temperature. In addition, fire sprinklers, which have been around for more than a century, protecting commercial and industrial properties and public buildings are also available for homes. According

1 Centers for Disease Control and Prevention, National Center for Health Statistics (2020). Multiple Cause of Death 2019 on CDC WONDER Online Database.

2 Centers for Disease Control and Prevention, National Center for Health Statistics (2020). Multiple Cause of Death 2017-2019 on CDC WONDER Online Database.

3 Agency for Healthcare Research and Quality. (2021). National Inpatient Sample (NIS), Healthcare Cost and Utilization Project (HCUP), 2016-2018.

4 Agency for Healthcare Research and Quality. (2021). Nationwide Emergency Department Sample (NEDS), Healthcare Cost and Utilization Project (HCUP), 2016-2018.

5 National Electronic Injury Surveillance System. (2015-2018). Washington DC: US Consumer Product Safety Commission.

6 Centers for Disease Control and Prevention. (2019). Burn prevention. Retrieved from <https://www.cdc.gov/safekid/burns/index.html>.

to the National Fire Protection Association (NFPA), the civilian death rate was 81 percent lower in homes with fire sprinklers than in homes without them.⁷

The Children’s Safety Network has produced this resource guide to provide useful fire and burn prevention resources to help state and local health departments and their partners expand and enhance their prevention efforts. This resource guide is divided into six sections: Organizations, Prevention Resources, Legislation, Publications, Data Resources and Data Sources. The resources included in this guide are not meant to be comprehensive, nor are the listings intended as endorsements.

ORGANIZATIONS

American Burn Association (ABA)

<http://ameriburn.org/>

Centers for Disease Control and Prevention (CDC)

<https://www.cdc.gov/homeandrecreationalafety/fire-prevention/index.html>

National Fire Protection Association (NFPA)

<http://www.nfpa.org>

U.S. Fire Administration (USFA)

<http://www.usfa.fema.gov>

PREVENTION RESOURCES

Burn and Scald Prevention Tips | Safe Kids

https://www.safekids.org/sites/default/files/documents/burn_and_scald_prevention_tips_2015.pdf

Burn Awareness Week | American Burn Association

<http://ameriburn.org/prevention/burn-awareness-week/>

Burn Prevention Resources | American Burn Association

<http://ameriburn.org/prevention/prevention-resources/>

⁷ National Fire Protection Association. (2017) <https://www.nfpa.org/-/media/Files/News-and-Research/Fire-statistics-and-reports/Suppression/ossprinklers.pdf>

National Fire Protection Association (NFPA) Resources

<http://www.nfpa.org>

[Community Tool Kits](#)

[Fire Prevention Week](#)

[Learn Not to Burn Program](#)

[NFPA Educational Messages \(2018\)](#)

[Put a Freeze on Winter Fires](#)

[Safety Tip Sheets](#)

[Sparky the Fire Dog](#)

[Sparky School House](#)

[Sprinklers in U.S. Reported Home Fires during 2010 to 2014](#)

[Winter Holidays](#)

Cost of Injuries Fact Sheet | CSN (2017)

<https://www.childrenssafetynetwork.org/sites/childrenssafetynetwork.org/files/Cost%20of%20Injuries%20Fact%20Sheets%20Nov%202017.pdf>

Fire Safety Information Center | US Consumer Product Safety Commission

<https://www.cpsc.gov/Safety-Education/Safety-Education-Centers/Fire-Safety-Information-Center>

Fire is Everyone's Fight | USFA

<http://www.usfa.fema.gov/prevention/outreach/fief>

Home Fire Sprinkler Coalition

<https://homefiresprinkler.org/>

Keep Your Family Safe from Fire | National Safety Council

<https://www.nsc.org/home-safety/safety-topics/emergency-preparedness/fire>

Keeping Kids Safe from Fire | USFA

<https://www.usfa.fema.gov/prevention/outreach/children.html>

Scald Injury Prevention Educator's Guide | American Burn Association (2017)

<http://ameriburn.org/wp-content/uploads/2017/04/scaldinjuryeducatorsguide.pdf>

Smoke Alarm Outreach Materials | USFA

http://www.usfa.fema.gov/prevention/outreach/smoke_alarms.html

Start Safe: Fire | Safe Kids Worldwide

<https://www.safekids.org/start-safe-fire-resources-parents>

Successful Strategies for Preventing Fire and Burn-Related Injuries among Children: An archived CSN webinar | (CSN) (2017)

<https://www.childrenssafetynetwork.org/webinars/successful-strategies-preventing-fire-burn-related-injuries-among-children>

The True Cost to Install a Residential Fire Sprinkler System | National Fire Sprinkler Association (2020)

<https://nfsa.org/2020/09/15/the-true-cost-to-install-a-residential-sprinkler-system/>



LEGISLATION

Fire Safety Laws and Legislation by State | First Alert
<https://www.firstalert.com/legislation.html>

2020 State Fireworks Control Laws | American Pyrotechnics Association
<https://www.americanpyro.com/state-law-directory>

PUBLICATIONS

A 5-Year Review of Pavement Burns from a Desert Burn Center | Journal of Burn Care and Research (2019)
Vega J, Chestovich P, Saquib S, Fraser D
<https://academic.oup.com/jbcr/article/40/4/422/5425552>

Children Younger than 18 Years Treated for Nonfatal Burns in US Emergency Departments | Clinical Pediatrics (2019)
Mitchell M, Kistamgari S, Chounthirath T, McKenzie LB, Smith GA
<https://journals.sagepub.com/doi/10.1177/0009922819884568>

Craniofacial and Neck Burns in the Pediatric Population | Burns (2020)
Othman S, Sethi HK, Cohn JE, Shokri T, Davis III WJ
<https://www.sciencedirect.com/science/article/abs/pii/S0305417920300589?via%3Dihub>

Effect of Fireworks Laws on Pediatric Fireworks-Related Burn Injuries | Journal of Burn Care and Research (2017)
Myers J, Lehna C
<https://academic.oup.com/jbcr/article-abstract/38/1/e79/4568916?redirectedFrom=fulltext>

Fire and Scald Burn Risks in Urban Communities: Who is at risk and what do they believe about home safety? | Health Education Research (August 2013)
Parker EM, Gielen AC, McDonald EM, Shields WC, Trump AR, Koon KM, Jones V
<https://academic.oup.com/her/article/28/4/599/699066>

Selected State and Local Resources

FDNY Smart | New York City Fire Department
<http://www.fdnysmart.org>

“Fire Is...” | New Jersey Fire Prevention and Protection
<http://www.njfiresafety.com>

S.A.F.E. Program | Massachusetts Department of Fire Services
<https://www.mass.gov/service-details/student-awareness-of-fire-education-safe>

San José Junior Fire Safety | San José Fire Department
<https://www.youtube.com/watch?v=3Z-NNXjwQv0>

Fire Pit-Related Burn Injuries in Children and Adolescents | Journal of Burn Care and Research (July 2019)

Flaherty MR, Sheridan R

<https://academic.oup.com/jbcr/article/40/6/943/5530375>

Grill-Related Injuries in Children Treated in US Emergency Departments, 1990 – 2009 | Pediatric Emergency Care (2016)

Ortega HW, Vander Velden H, Smith GA

https://journals.lww.com/pec-online/Abstract/2016/12000/Grill_Related_Injuries_in_Children_Treated_in_US.4.aspx



Intoxication and Flame Burn Injuries in Young Adults in the United States | Journal of Burn Care and Research (2019)

Palilonis MA, Amanullah S, Gjelsvik A, Schlichting LE, Cioffi WG, Harrington DT, Vivier PM

<https://academic.oup.com/jbcr/article/40/4/392/5426664>

Juvenile Fire-Setting: A Review of Treatment Programs | Psychiatry, Psychology and Law (2011)

Fritzson K, Dolan M, Doley R, McEwan TW

<https://doi.org/10.1080/13218719.2011.585223>

Risk Factors and Risk Assessment in Juvenile Fire-Setting | Psychiatry, Psychology and Law (2011)

Dolan M, McEwan TW, Doley R, Fritzson

<https://doi.org/10.1080/13218719.2011.559154>

Scald Burns in Children under 3 years: An Analysis of NEISS Narratives to Inform a Scald Burn Prevention Program | Injury Prevention (2015)

Shields WC, McDonald EM, Pfisterer K, AC Gielen

<https://injuryprevention.bmj.com/content/21/5/296>

Social Determinants Associated with Pediatric Burn Injury: A Population-Based, Case-Control Study | Journal of Burn Care and Research (2020)

Padalko A, Fawaziuk J, Chateau D, Sareen J, Logsetty S

<https://academic.oup.com/jbcr/article/41/4/743/5821550>

Still Too Hot: Examination of Water Temperature and Water Heater Characteristics 24 Years After Manufacturers Adopt Voluntary Temperature Setting | Journal of Burn Care and Research (2013)
Shields WC, McDonald E, Frattaroli S, Perry EC, MHS, Zhu J, Gielen AC

<https://academic.oup.com/jbcr/article-abstract/34/2/281/4565889?redirectedFrom=fulltext>

U.S. Experience with Fire Sprinklers | NFPA (2017)

Aherns M.

<https://www.nfpa.org/-/media/Files/News-and-Research/Fire-statistics-and-reports/Suppression/ossprinklers.pdf>

DATA REPORTS

Fires by Occupancy or Property Type | NFPA

<https://www.nfpa.org/News-and-Research/Data-research-and-tools/US-Fire-Problem/Fires-by-occupancy-or-property-type>

Fire Loss in the United States during 2018 | NFPA (2019)

<https://www.nfpa.org/News-and-Research/Data-research-and-tools/US-Fire-Problem/Fire-loss-in-the-United-States>

Home Cooking Fires | NFPA (2020)

<https://www.nfpa.org/-/media/Files/News-and-Research/Fire-statistics-and-reports/US-Fire-Problem/Fire-causes/oscooking.pdf>

Home Grill Fires | NFPA (2020)

<https://www.nfpa.org/News-and-Research/Data-research-and-tools/US-Fire-Problem/Home-Grill-Fires>

Home Structure Fires | NFPA (2019)

<https://www.nfpa.org/News-and-Research/Data-research-and-tools/Building-and-Life-Safety/Home-Structure-Fires>

Injury Prevention: What Works? | CSN (2014)

<http://www.childrensafetynetwork.org/publications/whatworks2014>

Non-Fire Cooking Burn Injuries | NFPA (2020)

<http://www.nfpa.org/-/media/Files/News-and-Research/Fire-statistics-and-reports/US-Fire-Problem/Fire-causes/osNonFireCookingBurns.ashx>

US Fire Death Rates by State | NFPA (2019)

<https://www.nfpa.org/News-and-Research/Data-research-and-tools/US-Fire-Problem/Fire-deaths-by-state>

<https://www.nfpa.org/-/media/Files/News-and-Research/Fire-statistics-and-reports/US-Fire-Problem/osstate.pdf>

DATA SOURCES

CDC WONDER | CDC

<https://wonder.cdc.gov/>

Data, Research and Tools | NFPA

<https://www.nfpa.org/News-and-Research>

Healthcare Cost and Utilization Project (HCUP) Databases | Agency for Healthcare Research and Quality

<https://www.ahrq.gov/data/hcup/index.html>

National Ambulatory Medical Care Survey (NAMCS) | CDC

https://www.cdc.gov/nchs/ahcd/about_ahcd.htm

National Burn Repository | American Burn Association

<http://ameriburn.org/research/burn-dataset/>

National Electronic Injury Surveillance System (NEISS) | US Consumer Product Safety Commission

<https://www.cpsc.gov/Research-Statistics/NEISS-Injury-Data>

National Fire Incident Reporting System (NFIRS) | FEMA

<https://www.usfa.fema.gov/nfirs/>

National Hospital Ambulatory Medical Care Survey (NHAMCS) | CDC

https://www.cdc.gov/nchs/ahcd/about_ahcd.htm

National Hospital Care Survey (NHCS) | CDC

https://www.cdc.gov/nchs/nhcs/index.htm?CDC_AA_refVal=https%3A%2F%2Fwww.cdc.gov%2Fnchs%2Fnhcs.htm

National Hospital Discharge Survey (NHDS) | CDC

https://www.cdc.gov/nchs/nhds/index.htm?CDC_AA_refVal=https%3A%2F%2Fwww.cdc.gov%2Fnchs%2Fnhds.htm



National Trauma Data Bank (NTDB) | American College of Surgeons

<https://www.facs.org/quality-programs/trauma/tqp/center-programs/ntdb>

Youth Fire Setting Information and Repository Evaluation System

<https://yfires.com/>

WISQARS (Web-based Injury Statistics Query and Reporting System) | CDC

<https://www.cdc.gov/injury/wisqars/index.html>



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