

HOME CHRISTMAS TREE AND HOLIDAY LIGHT FIRES

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Abstract

NFPA estimates that Christmas trees, both natural and artificial, were the item first ignited in an estimated average of 240 reported home structure fires per year during 2005-2009. These fires caused an estimated average of 13 civilian deaths, 27 civilian injuries, and \$16.7 million in direct property damage per year. These estimates are based on data from the U.S. Fire Administration's (USFA's) National Fire Incident Reporting System (NFIRS) and the National Fire Protection Association's (NFPA's) annual fire department experience survey.

During the same period, holiday lights and other decorative lighting with line voltage were involved in an estimated average of 150 home structure fires per year. These fires caused an average of eight civilian deaths, 14 civilian injuries, and \$8.5 million in direct property damage per year.

Keywords: Christmas tree, holiday lights, fire statistics, decorative lights, home fires, residential fires

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Executive Summary

The winter holiday season should be a joyous time of year. However, certain types of fires and injuries associated with holiday decorating are much more common during this season.

Christmas tree fires

In 2005-2009, U.S. fire departments responded to an estimated annual average of 240 home structure fires that began with Christmas trees. Home Christmas tree fires caused an average of 13 civilian deaths, 27 civilian injuries, and \$16.7 million in direct property damage per year.

Although these fires are not common, when they do occur, they are unusually likely to be serious. On average, one of every 18 reported home structure Christmas tree fires resulted in a death compared to an average of one death per 141 total reported home structure fires.

Half of the home Christmas tree structure fires were in December and one-third were in January. Forty-two percent of home Christmas tree structure fires occurred on the twelve days from December 23 through January 3.

Electrical failures or malfunctions were involved in one-third (33%) of the home Christmas tree structure fires. One in five (20%) occurred because some type of heat source was too close to the tree. Decorative lights with line voltage were involved in 13% of these incidents. Eleven percent of the home Christmas tree fires were started by candles.

Eighteen percent of home Christmas tree structure fires were intentionally set. Half of the intentional Christmas tree fires occurred in January and may have been related to disposal.

The risk of fire is higher with natural trees than artificial ones. Researchers found that dry natural trees burned easily but trees that had been kept moist are unlikely to catch fire unintentionally.

Fires involving holiday lights or other decorative lighting with line voltage

Holiday lights and other decorative lighting with line voltage were involved in an estimated average of 150 home structure fires per year in this same period. These fires caused an average of eight civilian deaths, 14 civilian injuries, and \$8.5 million in direct property damage per year. Almost half (45%) occurred in December and 13% were in January. Seventeen percent of these fires began with Christmas trees. Electrical failures or malfunctions were factors in three-quarters (73%) of the fires involving holiday or decorative lights.

Falls related to holiday decorating

In a study of fall-related injuries during the holiday season, Stevens and Vajani estimated that an annual average of roughly 5,800 fall injuries related to holiday decorating were treated at hospital emergency rooms between November 1 and January 31 in 2000-2001, 2001-2002, and 2002-2003. Sixty-two percent of those injured were between 20 and 49 years of age, compared to 43% of the population in this age group. With 43% of the injuries resulting from falls from ladders and 13% caused by falls from the roof, it appears that the majority of these falls occurred during outdoor decorating. Falls from furniture, typically inside the structure, accounted for 11% of the injuries. Some falls occurred when people tripped over or slipped on tree skirts or other decorations.

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Home Fires Involving Christmas Trees or Holiday Lights Fact Sheet

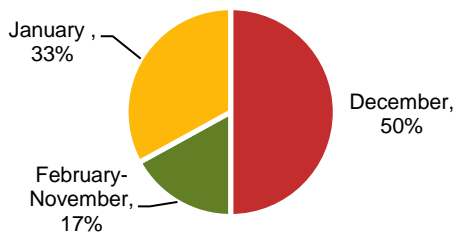
Christmas Tree Fires

U.S. fire departments responded to an estimated annual average of 240 home¹ structure fires that began with Christmas trees in 2005-2009. These fires caused an annual average of

- 13 civilian fire deaths,
- 27 civilian fire injuries, and
- \$16.7 million in direct property damage

On average, one of every 18 reported home Christmas tree fires resulted in a death, compared to an average of one death per 141 total reported home fires.

Home Structure Fires in Which Christmas Trees Were First Ignited by Month: 2005-2009



Five of every six Christmas tree fires occurred in December or January. Forty-two percent of home Christmas tree structure fires occurred on the twelve days from December 23 through January 3.

Electrical problems were factors in one-third (33%) of home Christmas tree structure fires.

A heat source was too close to the Christmas tree in one of every five (20%) of these fires.

Thirteen percent of home Christmas tree fires involved decorative lights.

Candles started 11% of home Christmas tree structure fires.

Two of every five (39%) home Christmas tree fires started in the living room, family room, or den.

Eighteen percent of home Christmas tree structure fires were intentionally set. Half of the intentional Christmas tree fires occurred in January and may have been related to disposal.

Fires Involving Holiday Lights or Other Decorative Lighting with Line Voltage

Holiday or other decorative lights with line voltage were involved in an average of 150 home structure fires per year, resulting in an average of

- 8 civilian deaths,
- 14 civilian injuries, and
- \$8.5 million in direct property damage.

Almost half (45%) of these fires were reported in December and 13% occurred in January.

In one of every six (17%) of these fires, Christmas trees were the item first ignited.

Electrical problems were factors in three-quarters (73%) of these fires. Something that could burn was too close to the lights in 15% of the fires.

Leading Items First Ignited in Holiday Light Home Structure Fires



Falls are also a problem. A study found that roughly 5,800 people per year were treated at hospital emergency rooms for falls associated with holiday decorations during November to January.²

¹Homes are dwellings, duplexes, manufactured homes, apartments, townhouses, and rowhouses.

²J.A. Stevens and M Vajami. "Fall-Related Injuries During the Holiday Season -- United States, 2000-2003," *MMWR Weekly*, December 10, 2004, 53(48); 1127-1129, online at <http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5348a1.htm>.