

The Case for Home Fire Sprinklers

This document is to support the adoption of fire sprinkler requirements in new homes, to provide important information about home fire sprinklers, and to clarify key NFPA statistics that may have been used out of context by home fire sprinkler opponents.

Home fire is a major problem in the U.S.

Fire in the home poses one of the biggest threats to the people of your community. Nearly 3,000 people per year die in U.S. home fires. Most people do not believe that we are safe enough or that current death tolls from home fires are acceptable.

Smoke alarms and sprinklers both save lives from fire

Home fire sprinklers are a proven way to protect lives and property against fires at home. These life-saving systems respond quickly and effectively to the presence of a nearby fire. Sprinkler systems provide additional benefits, on top of the benefits already provided by smoke alarms.

- Working smoke alarms cut the risk of dying in a home fire by 50 percent.
- If you have a reported fire in your home, the risk of dying decreases by about 80 percent when sprinklers are present.

Beware misleading percentages on survival and death

Fire sprinkler opponents have been using a statistic of 99.45 percent to illustrate the effectiveness of smoke alarms in reducing home fire deaths. This NFPA statistic estimates the likelihood of surviving a home fire when a working smoke alarm is present. Taken completely out of context, a number like 99.45% sounds very high. But consider this:

- The total home fire death toll of roughly 3,000 deaths a year occurs in roughly 400,000 reported home fires a year. Therefore, the likelihood of surviving a home fire is over 99% without regard to the presence of smoke alarms or any other fire safety provisions. Does that mean 3,000 deaths are acceptable? Most people would say no.
- Each year, there are an estimated 41,000 deaths due to motor vehicle accidents and an estimated 6 million reported motor vehicle accidents. The likelihood of surviving a motor vehicle accident is 99.4%. Does that mean 41,000 deaths are acceptable? Most people would say no.
- Each year, 2.4 million people die of any cause in the country compared to a total U.S. resident population of 300 million. The likelihood of surviving every hazard, threat and illness for a year is 99.2%. Does that mean 2.4 million deaths are acceptable— that nothing at all should be done to protect Americans from anything, especially when technology exists that could save lives? Most people would say no.

Sprinklers do more than save lives

Sprinklers do more than save lives; they also protect property from destruction by fire. People in homes with sprinklers are protected against significant property loss—sprinklers reduce the average property loss by 71% per home fire.

The national consensus is in favor of sprinklers

All model safety codes now require the use of home fire sprinklers in new one- and two-family homes. These requirements offer the highest level of safety to protect the people of your community.

- Home sprinkler systems respond quickly to reduce the heat, flames, and smoke from a fire, giving families valuable time to get to safety.
- Roughly 90% of the time, fires are contained by the operation of just one sprinkler.
- Each individual sprinkler is designed and calibrated to go off when it senses a significant heat change.
- Only the sprinkler closest to the fire will activate, spraying water directly on the fire.
- In home fires deemed large enough to activate an operational sprinkler, wet-pipe sprinklers operated and were effective in 98% of reported fires.

Home fire sprinklers are cost effective

A national perspective on the cost of installing residential fire sprinklers is examined in the report, Home Fire Sprinkler Cost Assessment, released by the Fire Protection Research Foundation, an affiliate of NFPA. According to the report, the cost of installing sprinkler systems averaged \$1.61 per sprinklered square foot. This cost includes all costs to the builder associated with the system including design, installation, and other costs such as permits, additional equipment, increased tap and water meter fees – to the extent that they apply.