

USFA Focus on Fire Safety: Residential Fire Sprinklers Save Lives

The U.S. Fire Administration (USFA) would like members of the Fire Service to spread the word that residential fire sprinklers save lives. While smoke alarms can **alert** residents to a home fire, they cannot **extinguish** a fire. Fire sprinkler systems can!

In 2009, only 20% of reported fires occurred in one- and two-family homes but these fires caused 70% (2,107) of all civilian fire deaths. Homes also account for the largest share of civilian fire injuries and direct property damage.

Despite the fact that these figures represent improvement over the last 30 years, they continue to be appalling. Such losses are unacceptable. Incorporate the following information and facts into your community meetings and encourage residents to seriously consider installing residential fire sprinklers when building a new home, or when remodeling an existing home. The cost of installation is worth the life-saving potential of residential sprinklers.

Fire Safety Impact

The Building and Fire Research Laboratory at the National Institute of Standards and Technology has studied the impact of both smoke alarms and fire sprinklers in residential occupancies and estimates that:

1. When fire sprinklers alone are installed, the chances of dying in a fire are reduced by 69%, when compared to a home without sprinklers.
2. When smoke alarms alone are installed, a reduction in the death rate of 63% can be expected, when compared to a home without smoke alarms.
3. When both smoke alarms and fire sprinklers are present, the risk of dying in a fire is reduced by 82%, when compared to a home without either.

The Benefits of Residential Fire Sprinklers

- **Safer Fire Service:** The risk for firefighters decreases when residential fire sprinklers are in use because sprinklers reduce the intensity of the fire by dousing the flame earlier.
- **Fast Response:** Modern residential fire sprinklers are designed to respond to fire faster than commercial or industrial sprinkler systems because they are more sensitive to heat.
- **Aesthetically Pleasing:** Residential fire sprinklers are smaller and less conspicuous than commercial or industrial types. Color variations are available and some can be installed flush with the ceiling.
- **Reliable:** Fire sprinkler systems exceed a 95% "fail-safe" status in laboratory testing. Sprinklers individually activate only if there is a fire in which the heat escalates past the sprinkler's trigger point.
- **Investment Protection:** Fire sprinklers can prevent devastating home damage by extinguishing flames quickly. Sprinklers can limit the damage caused by smoke and fire and are less damaging than water damage caused by firefighting hose lines.
- **Simple Installation:** Installing a fire sprinkler system in a home that is under construction or being remodeled requires minimal extra piping and labor and greatly increases the safety of the residents.
- **Low Water Requirement:** Residential fire sprinklers can be connected to the domestic water supply and require less water than commercial and industrial systems.
- **Low Cost:** Residential fire sprinklers cost about \$1.61 per square foot. This cost is about the same as upgraded cabinets or carpet.
- **Lower Insurance:** Installing a fire sprinkler system has the potential to lower

insurance rates 5 to 15% by meeting code requirements.

It is the position of the U.S. Fire Administration that all citizens should be protected against death, injury, and property loss resulting from fire in their residence. All homes should be equipped with both smoke alarms and automatic fire sprinklers, and all families should have and practice an emergency escape plan. The USFA fully supports all efforts to reduce the tragic toll of fire losses in this nation by implementing these features. Only fire sprinklers can detect fire AND automatically control it—affording families the time to make a safe escape and protect valuables and property.

For more detailed information about summer fire safety, go to:

<http://www.usfa.dhs.gov/citizens/focus/residentialsprinklers.shtm>