

# Sprinkler Myths

Some homeowners are reluctant to install sprinklers because of misconceptions about their operation. The reality is that sprinklers are a proven, effective, and reliable technology.

**Myth: All the sprinklers in a system activate at the same time.**

*Reality: Only the sprinkler head closest to the fire will activate. Approximately 90% of all fires are extinguished by a single sprinkler head.*

**Myth: Setting off a smoke detector will cause the sprinkler system to activate.**

*Reality: Sprinklers are heat-sensitive and only activate when a fire is present.*

**Myth: Accidental activation is common.**

*Reality: The rate of accidental activation is approximately 1 in 16 million. One study concluded that sprinkler accidents are generally less likely and less severe than mishaps involving standard home plumbing systems.*

**Myth: The water damage from sprinklers is worse than the fire.**

*Reality: A sprinkler will control a fire with a tiny fraction of the water used by the fire department, typically around 20 gallons per minute. And since the sprinkler activates earlier than the fire department can respond, the fire is kept smaller and, as a result, smoke and fire damage are kept to a minimum.*

**Myth: Sprinklers are ugly.**

*Reality: Modern residential sprinklers are inconspicuous. Many residential sprinklers can even be concealed with a cap that blends into the ceiling. Just like regular plumbing, pipes can be completely hidden behind ceilings or walls.*

## Sprinklers in Action

On January 6, 2004, the OCFA performed a demonstration burn in two residential units at the decommissioned Tustin Marine Corps Air Station. A fire was started in the bedroom in each unit, simulating the effects of a candle that had been accidentally knocked over. The units were identical, except that the sprinklers had been removed from one unit and were operational in the other. Fire department dispatch, travel, and operations set-up time were based on OCFA averages and were comparable for each response.



A single sprinkler completely extinguished the fire within approximately two minutes and the atmosphere in the room remained survivable. Water and smoke damage was minimal and was contained to the bedroom.



Fire completely destroyed the bedroom and all its contents in the unsprinklered unit. Damage from the fire and firefighting operations was extensive throughout the unit. The smoke and heat in the bedroom became lethal within two minutes, and peak temperatures exceeded 1200 degrees at floor level.



# HOME FIRE SPRINKLERS

Protect what you value most



*Sprinklers and smoke detectors  
save lives.*



*For additional information  
contact:*

**Orange County Fire Authority  
Planning & Development  
1 Fire Authority Road  
Irvine, CA 92602  
714-573-6108  
[www.ocfa.org](http://www.ocfa.org)**

**Home Fire Sprinkler Coalition  
1 Batterymarch Park  
PO Box 9101  
Quincy, MA 02269-9101  
[www.homefiresprinkler.org](http://www.homefiresprinkler.org)**



## Home Fire Sprinklers Save Lives

Fire kills more people in the United States annually than all natural disasters combined. In fact, more than 2,600 individuals perish in fires each year, and, ironically, most fire deaths occur in the very place where we feel safest—our own homes. Home fires often happen at night when people are sleeping. In less than four minutes, a room can become engulfed in flames before anyone awakes. Those most at-risk are the very young and older adults, who may have difficulty making a quick escape. Sadly, on an average day in this country, four children will die from fire.

Although smoke detectors are essential in every household, they're designed to detect, not control, a fire. Home fire sprinklers complement the detectors' work, providing a way to fight flames immediately. In less time that it would take most fire departments to arrive at your home, fire sprinklers can contain and even extinguish a fire. There's less damage and less chance of deadly smoke and gasses reaching your family.



## Fire Sprinklers: A Safe, Smart Choice

Fire sprinklers are mandatory in many commercial and public buildings, and people are now demanding the same level of protection for their homes. Home fire sprinklers save lives, reduce property loss, and can even help cut homeowners' insurance premiums.

*A properly designed, installed, and maintained sprinkler system...*

### *...saves lives*

A fire death occurs every three hours. 80% of these fire deaths occur in the home. Built-in fire sprinklers will stop the flames before the fire has a chance to grow out of control. There has never been a recorded fire-related death in a single-family residence equipped with a properly maintained sprinkler system.

### *...protects property*

A properly maintained sprinkler system is nearly 100% effective in controlling or extinguishing a fire, usually before firefighters arrive.

### *...reduces damage caused by fire, smoke, and firefighting operations*

Sprinklers activate promptly, slowing or preventing the spread of fire beyond the room of origin, reducing smoke damage, and reducing the amount of water that must be used to extinguish the fire. Sprinklers typically use 20 gallons of water per minute (gpm), compared to 250 gpm used in standard firefighting operations.

## Affordable Protection

When building or buying a home, you make choices to upgrade carpeting, install new or upgraded appliances, or add an extra bathroom. For about the same expenditure, you can select a home fire sprinkler system to safeguard your family. No other option provides you with the peace of mind that fire sprinklers can. It's better than having your own firefighter standing by 24-hours-a-day.

### *How much do they cost?*

Tract homes (new)	\$0.65 - \$1.00 / sq. ft.
Custom homes (new)	\$1.00 - \$1.20 / sq. ft.
Residential (retrofit)	\$1.25 - \$2.50 / sq. ft.
Commercial (new)	\$0.80 - \$1.20 / sq. ft.
Commercial (retrofit)	\$2.00 - \$5.00 / sq. ft.
Industrial/hazardous	\$1.00 - \$1.50 / sq. ft.

Over the life of a mortgage, the cost of installing sprinklers is around \$3 a month — about the same as a cup of gourmet coffee! When you consider the degree of built-in reliability and responsiveness that home fire sprinklers offer, the investment is a wise one.

***To ensure sprinkler system reliability, be sure to use a qualified contractor who adheres to NFPA codes and standards and local fire safety regulations.***

