The Benefits of Home Fire Sprinklers
Every 93 seconds, a fire department responds to a structure fire in the U.S. In 2021, a home fire death occurred every three hours and eight minutes, and a home fire injury occurred every 47 minutes. In fact most fire deaths and injuries occurred in one- and two-family homes resulting in 2,840 deaths, 11,100 injuries and $8.7 billion in property damage.*

In Illinois, there were 9,281 residential fires (7,433 one- and two-family dwelling fires and 1,838 multifamily dwelling fires) in 2021, resulting in 350 civilian injuries, 99 deaths and $216 million in property damage.**

TODAY’S HOMES BURN HOTTER & FASTER

According to research from UL and the National Institute of Standards & Technology (NIST), the engineered, lightweight wood construction of today’s homes, open floor plans, and synthetic furnishings create more intense fires when compared with fires in older homes. Home fires can become deadly in as little as two minutes, not much time for young children, older adults or people with disabilities.

SMOKE ALARMS AREN’T ENOUGH

Smoke alarms are an important and necessary element of home fire safety. They alert residents to a fire and significantly reduce risk of dying in a fire, but they cannot suppress a fire or provide a path of escape for residents. Having both smoke alarms and fire sprinklers installed in a home reduces the risk of dying in a home fire by about 80%.

* Fire Loss in the United States During 2021, NFPA.
**Data obtained from Illinois State Fire Marshal’s Office, 2022.
The Solution: Fire Sprinklers

Fire sprinklers are the most effective fire safety devices and provide powerful protection from fire. They are designed for a quick response to fires, meaning they are designed to save lives.

Fire sprinklers work automatically and immediately to control or extinguish a fire before it spreads and often before the fire department arrives on the scene. They prevent deadly smoke and flashover, the point at which the extreme temperature causes everything in a room to ignite in flames.

Since they control fires so quickly, they also reduce damage to the property and other valuables. Fire reports nationwide show that property damage is significantly lower in sprinklered homes.

ILLINOIS COMMUNITIES RECOGNIZE HOME FIRE SPRINKLER BENEFITS

Over 110 Illinois communities require fire sprinklers in all new construction homes. In 1988, Long Grove became the first to enact a requirement due to a lack of fire hydrants. Barrington adopted an ordinance in 2000 because of concerns with lightweight construction in today’s homes. And, in many communities where teardown/rebuild homes are common, fire sprinklers are required in response to the closer proximity of larger homes.
INSURANCE PREMIUMS

Home insurance policy discounts widely vary, but they can range from 5% to 45% depending on the design of the fire sprinklers and the areas to be protected. The higher discounts are more likely available when sprinkler protection is combined with other features like smoke detection, monitoring of the systems, installation of fire extinguishers, and deadbolt locks. State Farm, an Illinois-based insurance company, supports home fire sprinklers as a member of the national nonprofit Home Fire Sprinkler Coalition (HFSC).

LESSER LOSS FROM A FIRE

Many communities across the U.S. are seeing impressive results from installing home fire sprinklers in all new construction. In Scottsdale, Arizona, fire sprinklers have been required in all new homes since 1986. Today, more than half the homes in Scottsdale are protected with sprinklers. A 15-year study of fire loss concluded that the average fire loss per sprinklered incident was $2,166 compared to more than $45,000 loss per fire in homes without fire sprinklers.

In Prince George’s County, Maryland, fire sprinklers have been required since 1992. A 15-year study of fire loss concluded that the damages averaged $4,883 per incident in a home protected with sprinklers compared to $49,503 per incident when there was a fatality in a home without sprinklers.

On average, sprinklers reduce the average property loss from a fire by about 70%.
A home sprinkler system is relatively maintenance free. There are a few simple items that are recommended and they can be accomplished by the homeowner.

You should know the location of the main water valve so it can very simply be visually inspected. Make sure it remains open at all times. Do not hang items from the sprinklers, and make sure the sprinklers do not get painted or obstructed.

Deaths and Fire-Related Injuries
Prince George’s County MD 15-Year History with its Residential Dwelling Fire Sprinkler Ordinance. 2009.

- 89% of total fire deaths occurred in residential dwellings
- 101 people in single-family home and townhouse fires with no fire sprinklers
- 328 civilian injuries in single-family home and townhouse fires with no fire sprinklers
- 0 fire deaths in homes protected with fire sprinklers
“ALL THE SPRINKLERS ACTIVATE AT ONCE.”

False. Only heat from a fire will activate the sprinkler closest to the fire. Each sprinkler has a heat-sensitive element that is individually activated when the temperature reaches 135-165°F, quickly cooling the fire and preventing other fire sprinklers from activating. In the vast majority of fires, only one fire sprinkler is needed to control or extinguish the fire.

“SMOKE CAN ACTIVATE SPRINKLERS.”

False. Smoke, cooking vapors or steam cannot cause fire sprinklers to activate. Only the high temperature of a fire will activate a sprinkler.

“SPRINKLERS LEAK AND/OR FREEZE.”

False. Sprinklers and their piping are pressure-tested to at least the same level as your plumbing system. Additionally, unlike faucets and other fixtures that are operated often throughout their lives, fire sprinklers remain closed until needed and do not receive the wear and tear of daily use. Like your plumbing pipes, sprinkler pipes are installed so they are not directly exposed to cold areas such as attics.

“WATER WILL CREATE MORE DAMAGE THAN THE FIRE.”

False. A fire sprinkler activates during the early stages of a fire before it grows and spreads. If fire sprinklers are not present, a fire typically grows exponentially larger until firefighters arrive, causing more property damage and requiring a greater amount of water from firefighters’ hoses to extinguish the fire. Fire sprinklers control or extinguish a fire with only a tiny fraction of the water.
**“SPRINKLERS ARE UGLY.”**

False. Sprinker pipes are hidden behind walls and ceilings. Home fire sprinklers can be concealed behind special plates that are flush with the walls or ceilings. The sprinkler manufacturer can even custom paint the plates to match a home’s decor. (Never paint a sprinkler yourself as it can compromise its functionality.)

**“SPRINKLERS ARE TOO EXPENSIVE.”**

False. Fire sprinklers add about 1.5% to the cost of a new home. This is about the same cost as an upgrade to the carpeting. But carpets often are replaced every 10 years, while fire sprinklers last for the life of the home. Compared with the cost of carpeting, fire sprinklers give you peace of mind for a bargain price.
The Illinois Fire Safety Alliance is a 501(c)(3) nonprofit organization dedicated to fire safety, burn prevention, and supporting burn survivors.

The IFSA is a proud founding member of the Illinois Fire Sprinkler Coalition, an organization that aims to increase awareness about the residential fire problem in Illinois and encourages the use of residential fire sprinklers to save lives and prevent injuries to both residents and firefighters alike.

FOR MORE INFORMATION:
Visit www.IFSA.org/sprinklers for additional facts and information about home fire sprinklers.

www.HomeLifeSafety.com

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