

This Fact Sheet was jointly produced by the US Fire Administration, US Department of Housing and Urban Development, and NIST Building and Fire Research Laboratory. It is in the public domain and can be freely reproduced and distributed.

# Tips on Fire Sprinklers



**NIST**

## Home Dangers

Every year more than 4,000 Americans die in home fires and more than 25,000 are injured. Children and the elderly are especially at risk in home fires because they are less able to escape when fire strikes. The best way to protect those who cannot quickly escape, and at the same time protect your home and belongings, is by installing sprinklers.

## Residential Sprinklers

Like the fire sprinklers found in most public buildings, residential sprinklers stand ready 24 hours a day to detect and extinguish fires before they can become a threat to lives or property. As life safety devices residential fire sprinklers are designed to react more quickly than their commercial cousins and thus need less water to do their work. Each sprinkler operates independently, so most home fires are extinguished by one or two heads with only a few gallons of water.

## Where Do You Find Them?

Residential sprinklers used to be found only in a few, upscale homes. Today many areas require sprinklers in all new apartments and some require them in all new homes. The sprinkler industry supports a program with *Habitat for Humanity* to install sprinklers in homes they build. So increasingly sprinklers are protecting low income Americans.

## Water Supplies

Fire sprinklers require a reliable source of water; either a city water connection or a storage tank for about 100 gallons and a pump. Sprinklers can share a

common supply and piping with the domestic water system, reducing cost but requiring additional storage capacity. The main problem with stored water is protecting it from freezing.

## Proper Design

Many builders offer fire sprinklers as an option. Where sprinklers are installed later it is important to use a qualified designer and installer. For example, sloped or beamed ceilings require special design and installation considerations. Look for a certified fire sprinkler contractor to be sure its done right.

## Maintenance

Fire sprinkler systems require periodic maintenance and inspection. This is not a do-it-yourself job and should be left to a qualified contractor. Never paint sprinklers, it can prevent them from operating in a fire.

## Insurance Savings

If you have fire sprinklers you may be eligible for a discount on your property insurance. Ask your agent.

## Don't Forget the Smoke Alarms

Even though fire sprinklers are effective life safety devices you still need smoke alarms. Some fires can begin as smoldering fires that produce smoke and gases but without appreciable heat to activate the sprinklers. Smoke alarms are needed to provide warning for these situations.

10/04



