CLEVELAND - Middleburg Heights Fire Department officials said newer homes that catch fire will burn much faster than older ones.

“They’re tighter than ever before because of insulation.  We want to be energy efficient, so it’s a tighter package of the house and then we bring all these flammable and combustibles into the home.  Our personal technology, our laptop and our desktops,” explained John Desmarteau, Assistant Fire Chief of the Middleburg Heights Fire Department.

A report by Underwriters Laboratory, a safety consulting firm, found that fires burn more quickly in new homes, which are built more efficiently.

Just 20 years ago, home furnishings were mostly made of wood, natural fabrics and metal.

Those tend to take longer to catch fire than plastics that are now in your carpet, furniture and electronics.

“In the last 50 years they’re burning hotter and faster. Eight times greater than what they were 50 years ago,” Desmarteau said.

That’s why the National Fire Protection Agency, which sets fire safety standards across the country, encourages fire sprinklers in homes.

A residential fire sprinkler can contain a fire in less time than it would take the fire department to arrive at your home.

Yet, only 2 percent of U.S. homes have fire sprinklers.  Just one fire sprinkler can contain 85 percent of fires.

A sprinkler system can cost thousands of dollars to install in an average-size home being built.

“What we see in the Midwest is normally about $1.50 to $3 a square foot, depending on finishes, customizations,” said sprinkler installer Drew Robbins.

The Pipefitters Local Union 120 in Cleveland recently put on a demonstration showing a living room with a sprinkler and one without a sprinkler system.  The fire was extinguished in about 15 seconds in the living room with a sprinkler.  The living room without a sprinkler was fully engulfed in less than 3 minutes.

Residential fire sprinklers are not required in new homes in Ohio.  Assistant Chief Desmarteau understands many people cannot afford fire sprinklers, but believes that they are one of the best investments a homeowner can make.

“Sprinklers take care of the fire before the firemen even get there, containing most of the fire.  We just go in and mop up half the time,” he said.

Desmarteau said having smoke detectors in your home is a must.

Installing a sprinkler system has the potential to lower insurance rates by up to 15 percent if they meet code requirements.

In the city of Cleveland, you need a permit to install a residential sprinkler system.

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[**The Importance of Fire Extinguishers**](http://www.engaugeinc.net/life-and-fire-safety-blog/the-importance-of-fire-extinguishers)

Posted by [Brendan McSheffrey](http://www.engaugeinc.net/life-and-fire-safety-blog/author/brendan-mcsheffrey)

1/13/11 9:55 AM

Just how important to society are fire extinguishers?  It turns out VERY IMPORTANT!  Often ignored,  even by the fire community, these overlooked life safety devices play a vital role in keeping us safe.  It is time for fire extinguishers to get the respect they deserve.  
   
For most people fire extinguishers are invisible red cans on walls,  never looked at,  rarely considered.   
 To some they are the joke in a funny story about cooling beer in college or the laugh from the time they shot one off that drunken night.  But in more than 600 businesses and non-residential structures every day in America they are the difference between a minor fire problem and a conflagration.   
   
Yes, you read that right, 600 time a day fire extinguishers put out fires in non-residential structures in the United States and many more around the globe.

**Here are the facts.**

According to the most recent NFPA (National Fire Protection Association) data1, in 2008 U.S. fire departments responded to an estimated 1,451,500 fires.  These fires resulted in 3,320 civilian fire fatalities, 16,705 civilian fire injuries and an estimated $15,478,000,000 in direct property loss.   
   
Of these fires 112,000 were responded to in commercial or municipal buildings.  Of the over $15 Billion in property damage, more than $3.811 Billion took place in these non-residential structures.  This represents an average loss per reported incident in non-residential / commercial structures of over $34,000.   
   
These facts, pure and simple, don’t tell the story of the true value of fire extinguishers to our society.

**The Vital Role of Fire Extinguishers**

To highlight the effectiveness of extinguishers in the early stage fire fighting, a 2002 UK study performed by FETA (Fire Extinguishing Trades Association) and IFEDA (Independent Fire Engineering and Distributors Association) reviewed over 2100 fire incidents and found that in 80% of the cases a portable fire extinguisher successfully extinguished the fire and in 75% of those cases, the fire department was not required to attend.

A similar survey was conducted in 2002 by EUROFEU (European Committee of the Manufacturers of Fire Protection Equipment and Fire Fighting Vehicles) in 6 European countries and it found strikingly consistent results.  In over 2600 incidents recorded it concluded that in 81.5% of cases the portable extinguisher successfully extinguished the fire and in 74.6% of the cases the fire department was not required to attend.

Extrapolating the results of these surveys to the U.S. market provides solid statistical evidence that in approximately 80% of all fire incidents a portable fire extinguisher is the only fire fighting tool needed to extinguish the fire.  Further, they indicate that in 60% of all fire incidents the fire department is not notified (and thus the event would not  appear in NFPA statistics).  If applied to the 2008 NFPA data, fire extinguishers effectively managed approximately 224,000 fires in commercial structures, 168,000 of which do not appear in NFPA statistics.

**Fire Extinguishers in Academic Settings**

To provide some additional insight, a 2010 White Paper from Worcester Polytechnic Institute reported on the use of fire extinguishers to combat real fires in academic settings.  According to their research, fire extinguishers are used approximately 15,000 times each year in schools, colleges, universities, dormitories, fraternities, sororities and barracks.    
   
That means that fire extinguishers are called into service more that 41 times each day as the first line of fire defense in our nations schools.  What is more important than protecting the lives of our young people?

**Fires in Hotels**

According to a recent article on HotelInteractive.com, a leading web portal for hotel professionals,

....an estimated 3,900 fires occur each year in hotels and motels. Annually, these fires result in $76 million in property loss.

According to a recent report by the U.S. Fire Administration, 46 percent of hotel and motel fires are caused by cooking, with electrical malfunctions and heating each causing an additional 7 percent of fires. These fires occur primarily in the evening, between 6 p.m. and 9 p.m. While 73 percent of fires are confined to the object of origin, 18 percent are confined to the room of fire origin and the remaining 9 percent of fires extend beyond the room of origin.

With 73 % of these fires confined to the object of origin, it is easy to see the absolutely  
 critical role that fire extinguishers play in keeping the guests in hotels safe.  Extrapolating the prominent studies,  this indicated more than 20 fires everyday are put out by fire extinguishers in hotels.

**Fire Extinguishers Protect the Environment**

Fire extinguishers also play a critical role in protecting the environment by controlling fires at their very early stages.  According to a 2010 White Paper from Green Collar Research, a leading sustainability on-line research organization,  
  
From a safety as well as from an environmental and carbon release perspective, the management of a fire with a fire extinguisher when it is in its very early stages is a best case scenario.  
  
Green Collar Research sums up the beneficial role that fire extinguishers, and particularly electronically monitored fire extinguishers like those offered by en-Gauge, in the following manner.

Fire and fire protection plays a significant role in releasing greenhouse gases into the atmosphere.  Fire extinguishers play a crucial role in protecting the environment due to their proven ability to fight fires while they are at their very early stages.  The availability of accessible and working fire extinguishers assures that the highest possible percentage of fires will be controlled with the minimal environmental impact possible.

Replacing the inefficient and carbon-intensive manual extinguisher inspection methodology with electronically monitored extinguishers will have significant positive impacts on the environment, including:

* ·Fewer carbon emissions from fire incidents in which a missing, blocked or non-functioning fire extinguisher is a contributing factor
* Reduced embodied carbon generated via the manufacture of replacement building materials necessary to repair fire damage
* Reduced carbon emission from the burning of fossil fuels for transportation necessary for the manual inspection of extinguishers
* Reduced water use required to fight fires
* Reduced levels of persistent pollutants associated with fires and waste water run-off

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**Fire Extinguishers - Society’s Silent Heroes**

With all of the benefits that fire extinguishers provide for us, it is surprising that we don’t appreciate them more.    
In fact, the only time we think about them is when we need them in an emergency.  The only time we hear about them is when they are unavailable, or when the are unable to do their job.    
  
One of the major concerns relative to fire extinguishers is that the 30-day fire extinguisher inspection required by the National Fire Protection Association in NFPA 10, is not sufficient to be sure fire extinguishers are available, accessible and functional at all times.  In order to ensure these silent heroes are ready when needed, it is crucial to have them monitored 24/7, just like all of the other, less utilized aspects of our fire protection systems.  To learn more about electronic monitoring of fire extinguishers, please visit http://www.engaugeinc.net.

# Do I Really Need a Fire Extinguisher?

You probably know already that a smoke alarm is by far the best home-safety investment you can make. For as little as $10, a smoke detector can help you literally rest assured that a fire won't catch you sleeping.

But you'd like to take the next step in fire protection. Perhaps you'd like to be able to fight a fire before it spreads through your home. Should you buy a fire extinguisher?

Yes, provided you know when and how to use it.

Fire extinguishers can be a small but important part of the home fire safety plan. They can save lives and property by putting out a small fire or suppressing it until the fire department arrives.

But there's an important addition to that statement: Don't even think about buying a fire extinguisher until you've already got working smoke detectors and a good home fire evacuation plan.

Fire safety experts advise that you attempt to extinguish a fire only if you have first made sure that everyone else has left or is leaving the building, and that someone has called the fire department. Remember, lives are more important than property.

If those conditions have been met, you should pick up the fire extinguisher and attack the fire. Be careful to make sure that at all times your back is to a safe exit. You'll also want to make sure that the fire is confined to one area. If it begins to spread to other areas, such as walls and curtains, you should retreat from the room if there is a chance the fire could surround you.

You also want to beware of smoke. If the room begins to fill to the point that you can't see or breathe, you should retreat.

The prompt use of a home extinguisher can smother a small fire before it spreads, but fire extinguishers can be dangerous in inexperienced hands. Fighting an electrical fire with a water-based extinguisher, for example, could give you an electric shock, and trying to put out a large or rapidly spreading fire with an extinguisher is useless and could leave you trapped in a burning building.

A grease fire in a kitchen can be especially dangerous. If you catch it early you may be able to put it out. But if a grease fire gets out of control, it can easily send a kitchen up in flames within three and a half minutes, leaving little time to escape.

So if you decide to buy a fire extinguisher, take the time to learn a bit about its proper use.

## Don't burn a hole in your wallet

So you've decided to buy a fire extinguisher. Do you need a 3-A:40-B:C? Or perhaps you'd like one of those neat 5-B:C units? Or maybe you want the heavy hitter, a 1-A:10-B:C?

Just what do all those letters and numbers mean? They may sound confusing, but if you take a little time to understand the coding, you can get the most suitable fire extinguisher at the lowest price. Some tips:

The letters denote the type of fire that can be fought with a certain extinguisher. "A" fires involve the types of materials that can be extinguished with water, such as paper, wood, and cloth. "B" fires involve flammable liquids, such as cooking grease and paint solvents. "C" fires involve electrical equipment, such as a television, a fuse box, or a stereo.

For home use, you'll generally want an A-B-C-rated unit. It will work on all fires. The exception is the small B:C units sold for kitchen use. A 5-B:C unit can cost as little as $10, but it can be quite handy for putting out a stove fire before it gets out of hand.

OK, you know what the letters mean. But what does the "5" mean in 5-B:C? It's a measure of the unit's firefighting capacity. The formula gets a bit complicated, but generally the higher the number, the more powerful the extinguisher. You can expect a unit rated at 10-B to put out twice as much liquid as a 5-B unit.

Experts recommend that homeowners buy a multipurpose unit rated at 3A:40-B:C as a first choice. These cost about $40. But if this unit is too cumbersome, they suggest a medium-sized 2A:10-B:C multipurpose extinguisher (about $35).

### es of fire extinguishers

There are fire extinguishers available for various fire types. Underwriters Laboratories has[**classified fire extinguishers**](http://www.safetyathome.com/home-safety/home-safety-articles/keeping-your-family-safer-with-fire-extinguishers/) into four categories:

* **Type A:** For use on fires involving combustible materials such as wood, cloth and paper.
* **Type B:** For use on flammable or combustible liquid fires, including gas, kerosene, oil and kitchen grease. (Note: **Never** use water to extinguish this type of fire – it will only spread the flames.)
* **Type C:** For use on fires involving energized electrical equipment.
* **Type ABC:** For use on all types of fires listed above.

### PASS your fire extinguisher

A home fire extinguisher is intended to put out fires confined to a small area. If the fire is spreading and you can't completely extinguish it, get out and make sure your local fire department is notified. If you do use your fire extinguisher, the [**American Red Cross**](http://www.redcross.org/prepare/disaster/home-fire)wants you to remember **P.A.S.S.**:

* **P**ull the pin on your fire extinguisher.
* **A**im the fire extinguisher at the base of the flames.
* **S**queeze the lever slowly and evenly.
* **S**weep the nozzle from side-to-side.

### For your home

In your home, you'll want to select a multi-purpose extinguisher that can be used on all types of fires. You'll want the extinguisher to be large enough to put out a small fire, but not so large as to be difficult to handle.

* Read the instructions that come with the fire extinguisher, and become familiar with its parts and operation before a fire breaks out. Local fire departments or fire equipment distributors often offer hands-on fire extinguisher trainings.
* Install fire extinguishers close to an exit. If you have a fire, keep your back to a clear exit when you use the extinguisher so you can quickly escape if the fire cannot be controlled. If the room fills with smoke, leave immediately.
* Know when to go. Fire extinguishers are one element of a fire response plan, but the primary element is safe escape. Every household should have a home fire escape plan and working smoke alarms.
* Periodically inspect your extinguishers to determine if they need to be recharged or replaced. Extinguishers need to be recharged or replaced after each use — even if you haven't used the entire extinguishing agent.

No matter which type of fire extinguisher you buy, make sure its pressure indicator shows "full" and that it was manufactured within the last year. The National Fire Protection Association recommends that dry chemical extinguishers that are intended to be discarded after use should be disposed of 12 years after the date of manufacture.

For more information about home fires and how you can better protect your family, visit the[**Federal Emergency Management Agency (FEMA)**](http://www.ready.gov/fires) website.