



Businesses and public buildings used to be the only places you saw portable fire extinguishers. Today, you'll find at least one extinguisher in 75 percent of American homes. Used at the right time, on the right fire and in the right way, an extinguisher can limit flame and smoke damage, and can even save your home. Simply owning an extinguisher can also lower your homeowner's insurance.

Extinguishers do have their limitations, however. And unless you know what to look for, it's easy to choose the wrong one. Are larger extinguishers necessarily better than smaller ones? Where should you put them, and how should you use them? Here's what you need to know:

WHAT ARE THEIR LIMITS?

Portable extinguishers are only part of a complete fire-safety plan that includes smoke detectors, an evacuation plan and, say fire officials, a sprinkler system.

"A heat-activated residential sprinkler system provides the best chance of survival," says Mark Conroy, senior fire protection engineer with the Quincy, Massachusetts-based National Fire Protection Association (NFPA), an independent organization that formulates stan-

dards for fire safety. The downside is cost: While the NFPA estimates a sprinkler system adds about 2 percent to the cost of building a new home—about \$3,000 to \$6,000 for a 2,000-sq.-ft. house—retrofitting an existing home with one costs even more.

But Conroy and other experts agree that extinguishers have their place if you know their limits. Most residential extin-

**How effective are they?
Which should you buy?
Here's what every
homeowner needs to know
by David Webster**

guishers provide an effective range of just 6 to 10 ft., and last about 10 seconds before their contents deplete. That's why they work best on small, contained fires like the ones in wastebaskets and small appliances. The key is catching the fire early while

Fire Extin



its temperature is relatively low. Once the fire becomes entrenched, filling a room with heat, smoke and deadly gases, the odds that you'll put it out with an extinguisher quickly drop.

These same limitations make extinguishers useless if a fire spreads to other parts of a room. That's why calling the fire department right away is so important. "We see situations like this a lot," notes David Nichols, fire marshal with the Westfield Fire District, west of St. Louis. "The occupants start using an extinguisher and neglect to call the fire department. In the meantime, the fire gets away from them."

Delaying that call wastes valuable time. Just three to five minutes can make a big difference in how far a fire spreads," Nichols adds.

WHICH SHOULD I BUY?

You'll find residential fire extinguishers at home centers, building-supply and hardware stores, as well as through companies that service them. Shopping for an extinguisher is a lot like shopping for a car—you'll have more than enough makes and models to choose from. But you can narrow down those choices with a few basic questions.

What kind of fires can it put out? A fire is a fire, right? Wrong. Fires have different properties depending on what's burning. Because all fires aren't alike, neither are extinguishers. The agent inside must match the fire for the unit to work.

Safety experts group fires into classes. The three major ones for homeowners:

Class A—ordinary combustibles, such as wood, cloth or trash;

Class B—flammable liquids, including cooking oil, gases, such as propane, and some plastics;

(continued)

Extinguishers



ALL EXTINGUISHERS HAVE a lock pin that prevents the handle from functioning and the contents from accidentally discharging. First Alert's Model FE1A10G disposable (left) has a one-handed plastic trigger grip. It weighs just 3 lbs., 6oz., and sells for about \$15. A drawback: The largest size available is 1-A: 10-B:C. The 8-lb.,

rechargeable Kidde Fireaway 340 (middle) has an aluminum container and a hose that allows you to reach a fire in tight spots without getting too close. The Amerex A400 (right) adds metal valves and handles, and weighs about 8½ lbs. The Kidde and Amerex units require two hands to operate; each costs about \$45.

Class C—fires that are heated by electrical energy.

Class C fires actually involve the same fuels as A and B, except electrical current supplies the ignition source needed for burning. Take away the current, and any remaining fire falls into one of the other two classes.

How can you tell which fires an extinguisher can effectively and safely put out?

- Be sure it has a UL-listed label.

FIREFIGHTING CRASH COURSE

Remember the **P-A-S-S** system:

Pull the pin to unlock the handle;

Aim low at the base of the fire;

Squeeze the handle;

Sweep the unit from side to side.

Underwriters Laboratories tests and rates extinguishers according to the classes and size of fire they can put out.

- Look for the fire class symbols. Every manufacturer uses symbols that tell you at a glance which classes of fire the extinguisher is rated for. They appear on the label as either the class letter inside an icon—A in a green triangle, B in a red square and C in a blue circle—or as small pictorials that show the type of fire on which the extinguisher is effective (see illustrations, opposite).

Which class should I pick? Most residential extinguishers are BC- or ABC-rated. For most homeowners, ABC extin-

guishers are the best choice. Here's why: BC extinguishers use carbon dioxide or sodium bicarbonate as the extinguishing agent and are most effective on B and C fires, though they can have some effect on an A fire. ABC extinguishers, however, work on all three fire classes. Often referred to as "multipurpose," ABC units use ammonium phosphate. The downside to this chemical: it leaves behind a fine, yellowish powder that can coat floors, furniture and appliances, and wreak havoc on electrical and electronic equipment if not quickly cleaned up. (See "The Right Ways to Fight Fires," page 14.)

What size do I need? There are several considerations here. The primary ones are size and heft. A unit that's too bulky and heavy is useless. Choose a unit that the smallest adult in your home can handle.



using an extinguisher on fires of various sizes, an examiner translates the results into a numerical code that accompanies the rated class. The numbers range from 1 to 40 for a Class A rating, and 1 to 640 for Class B. Class C fires get no numerical rating, because they're caused by an electrically energized A or B fuel.

The higher the number, the larger the fire the unit can handle. Unfortunately, the more fire an extinguisher can put out, the bigger and heavier it is. Residential fire extinguishers weigh from 2 to 10 lbs.

Your best bet: Buy an extinguisher that's rated highly, yet light enough for all adults in the house to handle. As a rule, Conroy suggests extinguishers with a 2-A: 10-B:C rating. That means it will put out a Class A fire that would otherwise require 2½ gal. of water; that it should put out a 10-sq.-ft. Class B fire when used by a novice fire-fighter and one up to 25 sq. ft. when used by a pro; and that it works on electrical fires.

Should I choose a disposable or rechargeable model? There's no easy answer; it depends on your habits and values. Disposable models last about 12 years before they lose pressure and must be discarded. They weigh and cost the least—between 2 and 10 lbs., and \$10 and \$20.

Rechargeable models can be refilled and pressurized after use and if they lose pres-

sure found in most disposables. On the downside, rechargeables should receive a yearly check by a certified technician for pressure and defects. While the typical fee is \$10 to \$25, ongoing servicing rates vary, so compare companies. And if you buy a rechargeable extinguisher from a store without on-site service, be sure it can be serviced locally. Rechargeable models cost more than disposables—up to \$50—and typically weigh in at 9 to 10 lbs. for a 2-A: 10-B-C unit.

Which should you buy? Compare short- and long-term costs. And consider whether the durability of a rechargeable and the reassurance of having it checked annually by a professional are worth its added expense. Remember, too, that whichever fire extinguisher you decide on, only adults should use it.

WHERE SHOULD I PUT IT?

To make extinguishers an effective part of your fire-safety plan, consider where and how to mount them in your home. The NFPA offers these simple guidelines:

- Put at least one extinguisher on each level. Buy enough so you don't have to walk more than 40 ft. from any point to get to one. Measure around furniture and corners and down hallways. And consider placing one in the kitchen, garage, workroom or

rated extinguisher that will handle all major fire types.

A puts out fires fueled by wood, paper, cloth, rubber, most plastics and fabrics.

B extinguishes fires fueled by flammable liquids, like oil, gasoline, grease and kerosene.

C is for fires caused by TVs, wiring, electronic devices and other electrical equipment.



any area with open-flame heating.

- Never put an extinguisher above a range or other item where a fire could originate. It's useless if you can't get to it.
- Locate extinguishers near exits. This prevents the fire from coming between you and your escape route.
- Put extinguishers in plain view, never inside a cabinet or closet. *(continued)*



Before You Fight the Inferno

Besides learning how to use an extinguisher, according to the National Fire Protection Association, you should follow these precautions during a fire:

- Always call the fire department, even if you think you've put out the fire. Fires have a sneaky way of rekindling.
- Before you begin fighting the fire, make sure everyone else has left or is leaving the building. Develop and follow an evacuation plan.
- Make sure the fire is confined to a small area. If not, get out.
- Keep your back to an unobstructed exit. Assume a worst-case scenario—you might not put out the fire and you'll need that exit. Be sure you have one.
- Don't fight a fire in a smoke-filled room. Smoke can obstruct your view—especially to an exit—and can fill your lungs with deadly gases. If the area is too smoky, get out.
- Be sure the extinguisher matches the class and size of fire. An extinguisher that is not rated for the type of fire you have is ineffective at best, and can lead to disaster.—D.W.

HOW DO I USE IT?

Best extinguishers come labeled with printed or visual instructions according to a method known as P-A-S-S (see illustration, page 62). Because you won't have time to read the instructions during a fire, learn to use an extinguisher *before* you need it.

Start by reading the owner's manual. When someone says, "I own an extinguisher," I say, "Tell me about it—what kind of extinguisher is it and how do you operate it?" says the NFPA's Conroy. "Never put yourself in a fire situation with an extinguisher you don't know anything about."

Conroy also suggests that homeowners get hands-on experience. "I've found that people are genuinely surprised at both the

head and nozzle—even if you have a professional service plan. If you find damage or signs of a leak, replace the unit.

Like smoke detectors, portable fire extinguishers reduce the risk of fire damage or injury, but they're not a cure-all. They must be chosen, maintained, placed and used the right way, on the right type of fire. By following that approach, an extinguisher just might save you and your family from a catastrophe. ☉

HOW DO I MAINTAIN IT?

An extinguisher won't work unless it maintains pressure greater than the atmosphere. Check the gauge monthly for any

David Webster is a freelance writer and 10-year veteran of the fire department in Hattiesburg, Mississippi. For additional product information, see "Where to Find It," on page 87.

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Quick Changes

Closet-organizer kits help bring order to the chaos of the typical closet. But, because they usually are permanent, they're difficult to adjust for changing storage needs. The ShelfTrack system from ClosetMaid simplifies installation and makes it easy to reorganize the shelves when necessary.

The heart of the system is an aluminum-alloy rod, or hang track. It is attached horizontally, high up on the wall and screwed into the studs. (It can also be used with concrete walls.) Then vertical strips, called standards, which have to be permanently attached to the wall in most systems, are hung from the track. This frees up both standards and shelves for quick and easy reconfiguring.

The hang track is available in 40- (\$17) or 80-in. (\$25) lengths. The standards come in a variety of sizes, from 12½ (\$3.50) to 79½ in. (\$28.50).—F.J.D.



MORE INFO:
ClosetMaid, 650
S.W. 27th Ave.,
Dept. TH797,
Ocala, FL;
800/700-5311



SMALL INCREASE IN HOMEOWNING COSTS

index

What homeowners in the United States spent to maintain and operate their homes increased by only 1.95 percent on an annualized basis during the first quarter of 1997, according to the TODAY'S HOMEOWNER COST INDEX (THCI). This figure is down from a 2.16 percent upswing in the final quarter of 1996. The THCI

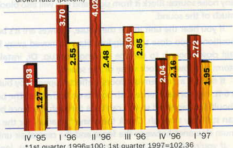
also lags behind the annualized 2.72 percent first-quarter rise in the Consumer Price Index.

The moderation in costs for the first quarter can be attributed to slowdowns in two of the five THCI components. There was a 0.52 percent rise in maintenance and repair costs, compared with a 5.89 percent jump in the final quarter of '96. In the property taxes and insurance sector, there was a decline of 0.57 percent for the January-through-March period.

Due to severe weather in some parts of the country, a 5.27 percent quarterly hike hit the utilities and public service component. The home furnishings and housekeeping aspects of the index rose 0.24 and 1.76 percent, respectively, for the first quarter.—F.J.D.

Quarterly comparison

Growth rates (percent)



*1st quarter 1996=100; 1st quarter 1997=102.36

NOT ALL FIRES ARE EQUAL

Not every household fire should be fought with an extinguisher:

Cooking-grease fires. "A grease fire—and I mean one that involves a large amount of grease—is a very dangerous situation," says Mark Conroy, senior fire protection engineer with the Quincy, Massachusetts-based National Fire Protection Association. "The reason the oil is flaming is because it has reached its autoignition point." A fire extinguisher can spread this volatile mixture all over cabinets and countertops near the stove. If you can, cut off the oxygen supply to the fire with a tight-fitting lid, then turn off the heat.

Chimney fires. These usually should be left to professional firefighters. You can try to snuff out what flame you can see with an extinguisher and—if you can do it without reaching into the fireplace—close the damper. But even if the fire appears to be out, call the fire department to make sure it hasn't extended into the walls.

Broken-gas-line fires. If a fire is fueled by a ruptured gas or oil line, cut off the fuel supply by closing any shutoff valves on your property. Never try to extinguish an oil or gas fire without first shutting off its source because the open line can cause an explosion.—David Webster

For a full report on extinguishers, see "Fire Extinguishers," page 60.