

Wood Smoke Awareness Kit

FAST FACTS

The U.S. Fire Administration (USFA) estimates an average of **50,100 heating fires** in residential buildings occurred in the United States each year and resulted in an annual average of approximately **150 deaths**, **575 injuries**, and **\$326 million** in property loss.

From 2008 to 2010, **heating** was the **second leading cause** and accounted for **14 percent** of all residential building fires responded to by fire departments across the Nation. (USFA)

Confined fires, those fires confined to chimneys, flues or flue burners, accounted for **87 percent** of residential building heating fires. (USFA)

Thirty percent of the non-confined residential building heating fires occurred because the heat source was too close to combustibles. (USFA)

According to the U.S. Consumer Product Safety Commission, more than 150 people die on average per year from carbon monoxide poisoning, related to the use of combustion appliances, including wood stoves, in the home.

EPA estimates there are more than 29 million fireplaces, 243,000 hydronic heaters, and 12 million wood stoves nationwide.

EPA estimates that 65 percent (7.8 million) of the nation's wood stoves are older, inefficient devices.

EPA estimates that if all of the old wood stoves in the United States were replaced with cleaner-burning hearth appliances, an estimated **\$56-126 billion** in health benefits per year would be realized.

Smoke from wood-burning stoves and fireplaces contain a mixture of harmful gases and small particles. Breathing these small particles can cause **asthma attacks** and severe bronchitis, aggravate heart and lung disease, and may increase the likelihood of respiratory illnesses.





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Changing out **one** old dirty, inefficient wood stove is equivalent to the **PM2.5 pollution** reduction of taking **five** old diesel trucks off the road.

Benefits of replacing old wood stoves and fireplaces:

- saves money, fuel, time, and resources.
- up to **50 percent** more energy efficient.
- uses 1/3 less wood for the same heat.
- cuts creosote build-up in chimneys that helps reduce the risk of fire.
- reduces particle pollution indoors and out by 70 percent.

The U.S. Biomass Tax Credit allows a credit up to \$300 for eligible stoves bought in 2013 and may be retroactive for stoves purchased in 2012. The tax credit expires December 2013.

After start-up, a properly installed, correctly used EPA-certified wood stove should be smoke free. If you see or smell smoke that means you may have a problem.

To help reduce smoke, make sure to burn dry wood that has been split, stacked, covered, and stored for at least 6 months. Never burn garbage, plastics, or pressure-treated wood.

Research estimates **70 percent** of smoke from chimneys can actually reenter your home and your neighbor's home. (Pierson et al 1989)

Consider using a HEPA filter in the same room as your stove or fireplace. A study from the University of British Columbia indicates that HEPA filters can reduce indoor particle pollution by **60 percent**.

