

FAST FACTS

The National Fire Protection Association estimates that in 2011, heating equipment was involved in an estimated **53,600** reported U.S. home structure fires, with associated losses of **400 civilian deaths**, 1,520 civilian injuries, and **\$893 million** in direct property damage. These fires accounted for 14 percent of all reported home fires.

In 2013, one home structure fire was reported **every 85 seconds**. (NFPA)

The leading factor contributing to home heating fires was **failure to clean**, principally creosote from solid-fueled heating equipment, primarily chimneys. (NFPA)

The United States Fire Administration estimates that wood stoves cause over **4,000** residential fires every year.

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 **17.5 million** fireplaces, **241,000** hydronic heaters, and **10.1 million** wood stoves nationwide.

EPA estimates that **65 percent (6.5 million)** of the nation's wood stoves are older, inefficient devices.

Just **20 old, non-EPA** certified wood stoves can emit more than 1 ton of fine particle pollution (PM_{2.5}) into your area during the cold months of the year.



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.

Particle pollution exposure can lead to a variety of health effects. For example, numerous studies link particle levels to increased **hospital admissions** and emergency room visits—and even to early death. Research indicates that **obesity or diabetes** may increase risk. **New or expectant mothers** may also want to take precautions to protect the health of their babies, because some studies indicate they may be at increased risk.

Some studies also suggest that long-term PM 2.5 exposures may be **linked to cancer** and to harmful developmental and reproductive effects, such as **infant mortality and low birth weight**.

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 an old wood stove with an EPA-certified stove:

- 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.

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**.