

Energy Tip of the Month

Fireplaces are incredibly inefficient at heating homes and they let conditioned air go up the chimney. Fireplace dampers are not effective at sealing the fireplace. When dampers are closed they do not provide an airtight seal and are quite ineffective at controlling undesired air leakage. In fact, fireplaces account for over 25% of air leakage in single family homes. A study showed that 80% of fireplace dampers are inadvertently left in the open position¹. Many fireplaces have broken and/or missing dampers. Two studies suggest that up to 30% of heating and cooling costs are lost because of air leaks from fireplaces. Here are some things to do:

Install a chimney top-sealing damper. These dampers are installed on the top of your chimney and act as a storm door, keeping conditioned air in regardless of the season. These are relatively expensive (\$100-\$400 not including installation) and they leave your home exposed to the chimney with all of its odors, toxins, and pollutants. (from Motherearth News and Flex Your Power).

Install removable DIY fireplace seal. Cut a 2-inch thick sheet of pink insulating foam board into the shape of the fireplace opening. You might want to add cloth over the panel to further close the gaps and make this insulation an attractive part of your home. (from Motherearth News) Estimate cost: \$10.

Glass fireplace doors are supposed to reduce the amount of air that would otherwise be siphoned up the chimney. Depending on the type of glass in the doors, some heat still radiates through the doors into the house. Fireplace doors made of tempered glass can break if you close the doors when a fire is burning. Ceramic glass doors are superior and can produce a small efficiency improvement but are expensive (\$800-\$1250). Fireplace doors must be well sealed to prevent cold air from backdrafts when the fireplace is not being used. Estimated cost: \$200 to \$1,000 (Motherearth News)

Fireplace heaters aren't as large as complete fireplace inserts (see below), but capture a significant amount of heat from the fire and force it into the house. These might actually be a fire hazard. (Motherearth News).

To make your fireplace truly efficient, you'll want to install a **fireplace insert** approved by EPA. A fireplace insert is basically a woodstove that fits into a masonry fireplace. Within the last 15 years, fireplace inserts have become much more energy efficient and they give you the feeling of being in front of the fireplace. Estimated cost: \$3,000 and up. (Motherearth News).

If you never use your fireplace, consider sealing it with an **inflatable damper**. Be sure to remove all insulation if you plan on using the fireplace again. Estimated cost \$50 to \$70 (from Flex Your Power, Fypower.org)

In other words, heat is going up your chimney. At the very least, close your damper and install a damper if you don't have one in good working order. If you can afford a good fireplace door, make sure it is well sealed and you can close the vents. If you have a gas grate, turn off the pilot if you can.