

Here are some other energy saving maintenance ideas to keep in mind:

***Appliances:** Always buy **Energy Star** labeled equipment when replacing or adding new appliances.

***Ovens and Stoves:** Stove top solid disk and radiant elements take longer to heat up and use more electric than halogen or induction elements. Self-cleaning ovens use less electric because they are better insulated. If possible, use a microwave or toaster oven rather than a full sized oven.

***Clothes Washers & Dryers:** Front loading clothes washers use much less water and energy than top loaded models. Tests show that clothes will be cleaned just as well in cold water as in hot, just make sure that you use appropriate detergent. Over-drying your clothes in the clothes dryer will not only waste energy but will reduce the life of your clothes. Experiment with the “auto dry” setting on your dryer to find the setting that works best. Always keep the lint screen and outside dryer vent clean. As an alternative to energy hog dryers and to increase clothing life, use an in-house clothes line to dry clothes in the winter which will also help raise the home humidity level. Use an outside clothes line in the summer if possible.

***Dishwashers:** Energy Star dishwashers are 30% more efficient than 1994 standards. Models with an “energy-saver” or short cycle option use less hot water and energy. Run the washer when fully loaded only and turn off the drying heater if possible and allow the dishes to air dry.

***Refrigerators & Freezers:** Your freezer should be set no lower than 5° and your refrigerator will work best at 40°. If your frig runs near 32°, ice crystals can begin to form and lower the quality of foods such as raw fruits, vegetables and eggs. Also, clean all appliances with coils at least once per year (exterior AC, dehumidifier, frig, etc.).

***Bath Fans:** Run bath fans at least a 1/2 hour or longer in summer after a shower or bath. Vacuum all exhaust vents once per year (bath & kitchen) as well as return and supply register covers.

***Low Flow Shower Heads:** Use a gallon jug with a top cut off to measure the gallons per minute (gpm) rate of your shower nozzle. If it is more than 2.5 gpm, replace with a new reduced flow unit of 1.9 gpm or less. www.efi.org is a good site to buy energy efficient products like this.

***HVAC Maintenance:** I recommend that you have your furnace serviced in September and AC when the outside temperatures reach above 60 degrees in the spring of every year and keep the furnace filter clean by replacing when needed. Vacuum all supply and return register covers at least once per year. It is best to remove floor register covers and vacuum out the duct as much as possible as these collect the most debris. To increase the life and efficiency of your water heater, drain several gallons of water out of the tank each year to reduce the amount of deposits that settle at the bottom.

***Forced Air HVAC Balancing:** Unless you have an older system where a supply duct services more than one outlet register, do NOT attempt to balance your conditioned air flow using the

closable flaps found on most modern day register covers. In other words, **do NOT close the registers in that unused bedroom or other rooms!** Closing the flap increases the pressure inside the duct which increases duct leakage. This usually results in expensively conditioned air being lost to wall, floor and other cavities that are often connected to the outdoors. Personally, I have removed the flaps on my registers because even in the open mode, they were an obstacle to air flow. System efficiency is increased by moving a maximum amount of air flow through the system, especially with AC and heat pumps, so the name of the game is, *never impede air flow*. This also means that you should **be careful not to block registers with curtains, furniture, toys, etc.** And, of course, make sure your furnace filter stays reasonably clean because dirty ones can slow down air.

***Programmable Thermostat:** If you do not already have one and you have a regular schedule of times away from home and sleep times, using a programmable thermostat to bump down the heating season temps to 60 during the hours you are away or a sleep will save 10% or more in energy costs. If so, the cost of the thermostat can be paid off in less than a year.

***Humidifiers:** Use humidifiers sparingly as dry homes last longer and have fewer health issues than wet homes. Excessive dampness can lead to mold and mildew growth in both areas you can see and sometimes in areas you can't see, like behind bathroom walls or in the attic. Monitor home humidity levels and strive to keep your home between 30% & 50% relative humidity in the winter and between 40 & 60% in summer. You should not have to run an energy hog dehumidifier in winter months.

***Ceiling Fans:** In the winter, ceiling fans set on low will push warm air down away from the ceiling and increase comfort without a draft. Speed up the fans and use them in the summer to cool off individual rooms as they are less expensive to use than the AC. A fan on a high speed can make the room feel as much as four degrees cooler. Remember to turn off lights and the ceiling fan when leaving a room. They only work when you are in that room.

***Caulk Wall/Floor Junction:** If you replace carpet in any rooms with exterior walls, always make sure that the exterior wall/floor junction is caulked tight as it is a very common to have leakage in that location.

***Gutter Guards:** Effective water management is one of the most important things you can do to increase the durability and health of your home. If downspouts are blocked and/or the grade slope away from your home is not sufficient to carry away storm water, water can run down the foundation wall and soak through the wall into your basement. Excessive water infiltration can lead to all kinds of problems involving mold, mildew, and rot. The leading cause of water infiltration is downspouts that get blocked by tree debris and overflow near the house. If you don't already have gutter guards, I have found that the snap-on nylon units with one or two slits to allow water to enter the gutter via surface tension work better than screen style units that seem to clog faster. If still available, I have found the "WaterFall Gutter Guard System" to be a cost effective product to help keep your gutters clean. Hartville Hardware has or used to have the product in 4' sections that come in boxes of 20 sections or 80'. Or contact the company to the nearest dealer. A big flat head screwdriver is used to snap the sections into the edge of the gutter.

***Radon Test:** While more a safety than efficiency concern, Radon contamination has been found to be at potentially dangerous levels in more than one third of all homes in NE Ohio. The percentage is as high as 50% in Stark and Wayne counties. Elevated Radon levels are a leading cause of lung cancer. Therefore, if still available, I recommend getting an inexpensive test kit from Air Chek Inc. at <http://www.radon.com/sub/oh/> to test your basement for this hazard.

***Lead Test:** If your home was built before 1978, lead based paints may have been used in your home. Excessive lead poisoning can be very hazardous, especially to younger children. Lead test kits are available on-line if you want to confirm the existence of lead contamination. Window sills are a popular place to test. One possible option is the "Lead Inspector Kit" from Abotex. If lead is detected in your home, special dust containment procedures should be used during any remodeling that will help reduce the spread of lead containing dust throughout the house.