

Three heating technologies that deliver serious energy savings and plenty of comfort

Just a couple of decades ago, about 20 cents out of every heating dollar went straight up the chimney, even with the most efficient furnaces available at the time. Today, we have many options for superior comfort, energy efficiency, and safety. Here's a look at three technologies that deliver energy savings and improved comfort.

High-efficiency heating means more money in your pocket

When a furnace is manufactured, it is assigned an Annual Fuel Utilization Efficiency rating (AFUE). This rating is expressed as a percentage, and it represents the amount of usable energy (heat) that is delivered from each unit of fuel. If your gas furnace is rated with an AFUE of 60%, it means that for every dollar you spend on gas, 40 cents worth goes right up the chimney. You can save a lot by choosing a furnace that is more than 90% efficient.

Two-stage heating delivers just the right amount of heat

On moderately cold days, a two-stage gas valve has a first-stage



setting that allows only part of the gas flow from the pipes to enter the furnace. This means that your furnace will take a little longer to reach the temperature set on your thermostat. In this way, the furnace delivers heat gently, with few drafts. On colder days, the furnace uses the second stage setting to reach the temperature you need to be comfortable. Most people find two-stage heating is much more comfortable than standard heating.

Variable-speed furnaces help save electricity

Variable-speed blower motor (fan) technology delivers warm air continuously over a long heating cycle. This produces unmatched comfort with almost silent operation. The best part is the lower operating

cost. If you have an air cleaner or ventilation, then you must run your furnace fan continuously. A standard furnace consumes anywhere from four to seven times as much electricity as a variable-speed furnace.

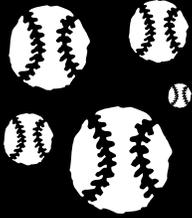
If you have an older furnace, then you may benefit from the energy savings and improved comfort provided by a furnace with updated technology. If you are thinking about upgrading your furnace or would like more information, please call us.

You can also stay warm and save energy when you...

- ▶ Have your heating system serviced every fall
- ▶ Keep air registers and vents free of debris that block airflow, such as draperies and furniture
- ▶ Have duct work that runs through unconditioned spaces (such as an attic or crawlspace) checked for leaks and sealed by a professional
- ▶ Seal leaks around doors and windows and augment insulation

A good furnace filter means a breath of fresh air for you and your furnace

The main job of a furnace filter is to protect the mechanical parts of the furnace from airborne particles. However, unless those particles are fairly large (maybe not the size of baseballs exactly, but almost), then a standard fiberglass filter won't do much in the way of filtering. It won't protect your central air conditioner, which is much more sensitive to contaminants than a furnace is, and it certainly won't help your indoor air quality.



A good quality furnace filter will not only protect the coil in your air conditioner and improve indoor air quality, but it will also help prolong the life of your furnace, prevent costly repairs, and maintain efficiency. The level and type of air cleaning you'll get varies from filter to filter, so if you'd like to know what kind is best for you, call us or ask your service tech when he comes to service your furnace.

Lighten up!



Use timers or lights with photo cells to automatically turn off outdoor lights when daylight breaks, and motion sensors to turn lights off when a room is not in use

Use task lighting (e.g., a desk lamp) to concentrate smaller amounts of light where you really need it

Try fluorescent light bulbs, which are much more energy efficient than standard bulbs, last a lot longer, and don't produce heat.

Have a good air day

{Four Simple ways to help you breathe easier at home}

For improved indoor air, don't rely on a standard fiberglass furnace filter, because it can only block big dust particles. To protect your family against small particles such as pet dander, which can infiltrate your lungs, call your heating contractor.



Molds and germs thrive in humidity.

To protect your family, keep the level of humidity inside your home at no higher than 50%. If you are not sure of how humid your home is, an inexpensive hygrometer purchased at your hardware store will tell you what you need to know. If you have any plumbing leaks, have them repaired.

Use kitchen and bathroom exhaust fans to remove excess warm, humid air and other possible indoor air contaminants generated from cooking, bathing, or cleaning. If you have a workshop in your home, consider having a ventilation hood installed to remove solvents such as glue.

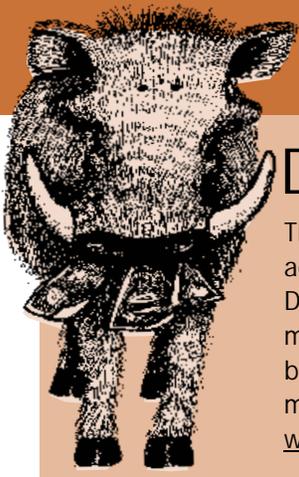


Paint and paint thinners, harsh cleaning products, and other solvents will off gas into your air and contribute to indoor air pollution. Reduce your family's exposure by storing these chemicals in a closed cabinet, preferably in a garage or shed outside the house.

Duct tape is for astronauts, not ducts!

Back in WWII, the U.S. military used a cloth-backed rubber adhesive tape to make many a critical repair on the battlefield. Later, the tape was famously used by astronauts on the Apollo 13 mission to jury-rig damaged equipment. By this time, the tape had become widely known as "duct" tape because many post-war HVAC contractors had begun to use it on—you guessed it—ducts. But according to Lawrence Berkeley National Laboratory, this is the one place you shouldn't use it, because it doesn't do the job and can lead to excessive energy consumption, especially if the ducts run through unconditioned spaces, such as an attic or crawl space. If you are tempted to seal a duct with tape, don't do it. You can save a lot of energy by having your ducts professionally checked and sealed.





Don't be an ENERGY HOG

The average household spends about \$2,000 on energy bills, according to Energy Hog, a web site provided by the US Department of Energy to help homeowners save energy and money. The site is chock full of easy and effective ways to avoid being an energy hog—and save anywhere from 10%–50% of the money you spend each year on energy. To check out the site, go to www.energyhog.org.

Where there's smoke...

Chimney fires occur a lot more often than you might think and are very serious (flue temperatures can reach 2100F or more), but easily prevented.

The primary cause of chimney fires is creosote, a black, extremely flammable tar-like goo that forms when hot gases in smoke from a wood fire condense onto the relatively cooler surface of a chimney.

Creosote tends to build up when the wood being burned is still a little green (or not dry enough), when the fire is not hot enough, or when there is a problem with the chimney itself.

To prevent creosote build up, burn only well dried hardwood and have the chimney and wood-burning appliance cleaned and inspected each year by a professional chimney sweep.



Five ways to save heating dollars this winter

1. Have our experienced, licensed service technician perform a safety check on all your gas appliances once a year to ensure safe, efficient operation.
2. Keep the area around the furnace and water heater clear so the air supply to the appliance is not blocked off. Vacuum air registers and vents regularly, and don't let furniture or other objects block the air flow.
3. Have a programmable thermostat installed and set it a few degrees cooler when you are away from home or asleep.
4. When adjusting your thermostat manually, remember that the house will not warm up any faster if you set the thermostat to a higher temperature than what you really need, and will probably result in more energy being used than necessary.
5. Minimize your use of bathroom and kitchen ventilation fans, because in an hour or so they can exhaust a significant amount of your heated air.

To save energy & stay safe, why not...

- Have the temperature on your water heater adjusted down to 125F/52C. You'll help prevent scalding and save a lot of energy, too.
- Remove clutter from around the furnace. Not only will this help it to run more efficiently, but it will also run more safely. A clearance of 2 feet all the way around it is a good idea.
- Make a habit of cleaning off the lint before drying each load. You'll not only cut your risk of a dryer fire, but you will also use a lot less energy when you dry your clothes. The number one reason why dryers do not dry efficiently is a clogged lint trap or ventilation hose.

At one drop per second, a single leaky washer wastes the equivalent of

about 200 bathtubs-full a year. A toilet that continues to run after flushing can waste

THOUSANDS of gallons of water in a single year.

Do yourself and the environment a favor: have your plumbing checked for leaks.



It's about time for great service

They say that time is money, but you can't hold it in your hands, sock it away under your mattress for a rainy day, or pawn your old vinyl record collection to get more of it. And though no one seems to have any time these days, incredibly, we keep losing more of it.

At Appel Heating and Air Conditioning, we are just like you. We understand how



precious time is, and we can help. For starters, annual tune-ups for your heating and air conditioning systems can often prevent a major, time-consuming repair, and will prolong the lifetime of your equipment. Who wants to spend time finding a company you can trust to repair your furnace in the middle of winter? Our service agreements save you even more time: we'll remind you when you need to book your annual tune-up, at a time that is convenient for you.

If you do need a repair or any of our products or services, please call us because we'll save you time with that, too. Our professional, licensed, and experienced technicians will arrive on time, with all of the parts they need to get the work done properly and efficiently the first time. If you have any questions, please call us.

Stay safe this winter: protect your family from carbon monoxide

Gas and oil furnaces, boilers, and water heaters can be some of the most significant emitters of deadly carbon monoxide gas in the home. To protect your family and pets from carbon monoxide poisoning, make sure you...

- Install carbon monoxide detectors near the sleeping and general living areas of your home.
- Have a licensed, trained technician annually inspect and service your gas (or oil) water heater and furnace. If you have a chimney, you should have it swept by a pro each fall.
- Never operate outdoor combustion appliances (e.g., a barbeque) inside the house, and if you have an attached garage, never start the car or operate a combustion appliance without opening the door first.

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