

## Tips on Clean Burning – To Heat More Efficiently and Reduce Air Pollution!

### Start Your Fire With Softwood Kindling



Softwoods (pine, fir) burn fast and hot and will heat the firebox and flue quickly. They are ideal for kindling and starting your fires, but form creosote easily due to the high resin (sap) content.



### Burn Longer and Cleaner With Hardwood

Hardwoods (maple, locust, elm) are

denser and take longer to ignite, burn slower and more evenly, producing less smoke, and more heat energy than softwood.

### Burn Only "Seasoned" Firewood

Firewood should dry, or "season" a minimum of 6 to 12 months after splitting. Seasoned firewood by definition contains 20 percent moisture or less by weight. Wood dries faster in a warmer storage area with more air circulation.

### To Speed Drying:

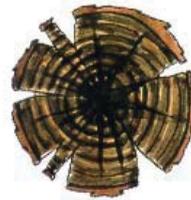
**Split and Stack** – logs dry from the outside in, so split big logs right away for faster drying. Stack loosely in a cross-wise fashion to get good air circulation.

**Store High & Dry** – Stack a foot or more above the ground and away from buildings in a sunny, well-ventilated area. Cover the top to keep rain and snow off the wood, but leave the sides open to breezes.

### Be Careful when Buying Wood Advertised as "Seasoned".

#### Look for:

- Dark colored, cracked ends, with cracks radiating from the center like bicycle spokes.
- Light in weight, meaning there is little moisture left; hardwood logs will weigh more than softwood.
- Sound - Hit two pieces together. Wet wood makes a dull "thud" sound. Dry wood rings with a resonant "crack," like a bat hitting a baseball.
- Easily peeled or broken bark. No green should show under the bark.



### Build a Small, HOT Fire First...

- Open Damper Wide allow in maximum air to fuel the fire. Until you have a bed of hot coals.
- Start Small and Hot - leave a thin layer of ash for insulation. Crumple a few sheets of newspaper and add some small pieces of kindling, then light. Add bigger kindling a few at a time as the fire grows. Get it burning briskly to form a bed of hot coals. Now add 2 or 3 logs.

### Refuel While the Coals Are Still Hot!

Open door slightly for a minute to prevent back puffing of smoke into the room.

Preheat again by placing a few pieces of kindling onto the red-hot coals. Add more as they catch fire, and then add a few larger pieces. Small, frequent loading causes less smoke than a big load in most older stoves. After refueling, leave the dampers and inlets open until fire is going well.

**DO NOT try to reduce the heat from a big fire by reducing its air supply because this leads to smoldering, creosote buildup and air pollution.**

### Don't Burn Anything But Clean, Seasoned Wood, Fireplace Logs, and Non-glossy White Paper, Regular Newspaper (No ads)

- **No** Garbage or waste
- **No** Plastics or rubber
- **No** Particleboard or plywood
- **No** Glossy or colored paper
- **No** Oil, solvent or paint
- **No** Coal or Charcoal
- **No** Painted/ Treated Wood

Burning these materials can produce noxious, corrosive smoke and fumes that may be toxic to you and your neighbors. They can foul your catalytic combustor and your flue.



**DO NOT** burn overnight unattended - it's a major fire hazard and can lead to a back draft of smoke into your own home.

### Heating in Warmer Weather

If you need extra heat in warmer weather, and a small space heater will not suffice, open the air controls wide, build a small, hot fire, using more finely split wood, and let it burn out.

## Maintain Your Fire Properly – Watch the Temperature

- Do Not Close the Damper or Air Inlets Too Tightly - The fire will smoke from lack of air.
- Follow the Wood Stove or Fireplace Manufacturer's Instructions Carefully. Be sure that anyone who operates it is also familiar with these instructions.
- Your Actions Determine How Efficiently Your Fireplace or Wood Stove Will Operate - A good wood stove/fireplace is designed to burn cleanly and efficiently, but it can not do its job right if you do not cooperate.



### Watch for Smoke Signals!

Get into the habit of glancing out at your chimney top every so often. Apart from the half hour after lighting and refueling, a properly burning fire should

give off only a thin wisp of white steam. If you see smoke, adjust your dampers or air inlets to let in more air. The darker the smoke, the more pollutants it contains and the more fuel is being wasted.

## Inspection and Upkeep - For Safety's Sake

Periodic inspection of your wood stove or fireplace is essential to ensuring its continued safe and clean-burning operation. Keep in mind the following points when performing your fireplace inspection:



- Chimney Caps can be plugged by debris, which will reduce draft.
- Chimneys should be cleaned professionally at least once a year to remove creosote buildup.
- A chimney that is blocked or clogged due to a bird's nest, leaves, or soot causes combustion byproducts, including Carbon Monoxide, to vent into the home. Cracked masonry could also cause a blockage.
- Wood-burning and gas powered fireplaces are a common source of carbon monoxide. Install a carbon monoxide alarm with an audible alarm in your home.

**Remember** – Creosote can fuel a chimney fire that can burn down your house!

- Catalytic combustor holes can plug up; follow instructions to clean.
- Stovepipe angles and bolts are particularly subject to corrosion.
- Gaskets on airtight stove doors need replacement every few years.
- Seams on stoves sealed with furnace cement may leak. Eventually the cement dries out, becomes brittle, and may fall out.
- Firebricks may be broken or missing.
- Grates or stove bottoms can crack or break.

### Residential Burning Restrictions:

Air quality advisories are issued daily at 4:00 pm, October 31st through March 31st by the State of Colorado. When an advisory day is in effect, only EPA certified wood stoves may be used.

Call the State Air Quality hotlines at 303-758-4848 or 303-782-0211 before you burn to find out if burning is allowed.



## TIPS ON CLEAN AND SAFE WOOD BURNING



For more information on clean burning please contact:

Stormwater Division  
720-898-7640 or  
720-898-7811

or visit [www.arvada.org](http://www.arvada.org)