

Burn Wisely This Winter

Getting the most from your wood burning appliance

Many of us turn to wood heat to stave off winter's chill. But in some communities, wood smoke can be a significant source of wintertime air pollution. By changing the way you burn wood, you'll save money, reduce air pollution, and protect your health as you stay warm this winter.

Wood smoke may smell good, but it's not good for you. Burning wood releases toxic chemicals like dioxin, formaldehyde, and arsenic. Burning also fills the air with fine particles – called particulate matter or PM -- which can become embedded deep inside the lungs. Numerous studies link particulate exposure to serious health problems, including heart and lung disease. Wood smoke can affect everyone, but children under 18, older adults, and people with diabetes, heart disease, asthma or other lung diseases are the most vulnerable.

By burning wisely, you can dramatically reduce the amount of smoke your appliance emits – even if your appliance is one of those older, less-efficient models. Here are a few simple tips to make your fire burn hotter, keep your wallet fatter, and keep your local air cleaner and healthier.

Season all firewood. Dry, seasoned wood is the key to a hot fire. Never burn freshly cut firewood, which can contain up to 50 percent moisture. Seasoned wood burns hotter, cuts fuel consumption and reduces the amount of smoke your appliance produces. Properly seasoned wood is split, securely covered or stored, and aged for at least six months before burning. Seasoned wood is darker, has cracks in the end grain, and sounds hollow when smacked against another piece of wood.

Choose the right firewood. Hardwoods are the best. Never burn trash or treated wood which can emit toxic air pollutants.

Start it right. Use only clean newspaper or dry kindling to start a fire. Never use gasoline, kerosene, charcoal starter, or a propane torch.

Don't let the fire smoulder. Many people think they should let a fire smoulder overnight. But reducing the air supply does little for heating and increases air pollution. A smoldering fire produces excessive smoke, so be sure to maintain a hot fire, even overnight. Keep the damper open and the front doors shut for maximum efficiency.

Clean ashes from your wood-burning appliance. Excess ashes can clog the air intake vents, reducing efficiency. Be sure to dispose of ashes in a metal container away from the house or any flammable material to reduce the risk of fire.

Keep your chimney clean. A clean chimney provides good draft for your wood-burning appliance and reduces the risk of a chimney fire. Have a certified professional inspect your chimney once a year.

Follow instructions. Operate your wood-burning appliance according to manufacturer's instructions and follow all maintenance procedures. Keep the doors of your wood-burning appliance closed unless loading or stoking a live fire. Harmful chemicals, like carbon monoxide, can be released into your home.

Size matters. Choose the right-sized appliance for your needs. If your wood-burning appliance is too big for your room or house, fuel will smolder and create more air pollution.

Never burn these things:

- Never burn household garbage including cardboard, plastics, foam, magazines and wrappers. All of these produce harmful chemicals when burned, and may also damage your wood-burning appliance.
- Never burn coated, painted, or pressure-treated wood, which releases toxic chemicals when burned.
- Never burn plywood, particle board, or any wood with glue in or on it. They all release toxic chemicals when burned.
- Never burn wet, rotting, diseased, or moldy wood. Wet wood burns inefficiently and releases far more particulate matter into the air. Wood burns best when it has a moisture content of less than 20%.

To learn more, visit EPA's [Burn Wise](#) website.