

## Wood Stoves and Fireplaces

### Why we care

Wood-burning stoves and fireplaces pose a major threat to clean air in Oregon. Their smoke contains tiny particles that can damage lung tissue and harmful toxins that move directly to the bloodstream. In winter months, wood smoke accounts for 85% of the air pollution in residential areas. Studies have shown that children from wood-burning homes have higher rates of respiratory illness than those from homes burning fossil fuels.

### Simple, positive change

- Retrofit your fireplace. About 90% of a fire's heat may be lost up the chimney, pulling warm air along with it.
  - Increase efficiency up to 50% by purchasing a wood burning insert, or 80% with a gas insert. <http://www.howstuffworks.com/home-improvement/construction/materials/fireplace-inserts.htm>
  - Hybrid grates increase radiant heat and reduce emissions. (Earth's Flame brand is carried by some Ace hardware stores.)
- Replace an old wood stove. A DEQ or EPA certified stove will use one-third as much wood and emit at least 50% less pollution. The state Department of Energy offers tax credits for high efficiency stoves. (Pellet stoves are generally the cleanest and most efficient.)
- Burn smart.
  - Burn only wood seasoned 6 months or more: green wood has only half the heating value.
  - For fireplaces, consider using logs made with sawdust and wax that reduce pollution by approximately 70%.
  - Build small, hot fires, and don't "bed the fire down" for the night.
  - Don't burn junk mail, magazines, gift wrapping, plastic-coated paper, treated or painted wood, or artificial wood because they may emit toxic fumes.
- For more information see <http://www.deq.state.or.us/aq/burning/woodstoves/101.htm>.

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