

## Energy Efficiency and Health

Energy efficiency is all about using technology and best practices to produce the same or better levels of services, such as light, temperature control, or motor drive power, while using less energy. Very simply, it's about reducing waste.

**Energy efficiency and health.** Lowering the amount of energy we waste reduces our need to burn coal and other fossil fuels to generate electricity. Those reductions in fossil fuels to generate electricity. Those reductions in pollution mean big gains for health, as pollutants from fossil fuel combustion contribute to four of the leading causes of death in the United States: cancer, chronic lower respiratory diseases, heart disease, and stroke. These pollutants damage all the major organ systems in the body.

**RESPIRATORY SYSTEM** Fossil fuel pollutants, particularly fine particulate matter and nitrogen oxides, contribute to serious respiratory health problems including: lung cancer, which kills more men and women in the US than any other form of cancer; COPD (chronic obstructive pulmonary disease), the third leading cause of death in the country, and asthma, which is at epidemic levels and is disproportionately harmful to children, especially minority and poor children.

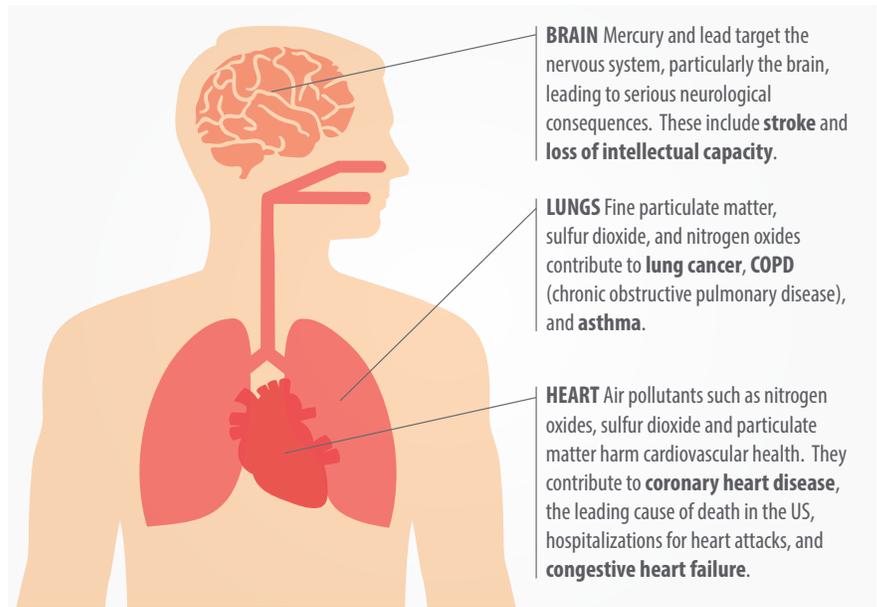
**CIRCULATORY SYSTEM** Air pollutants produced by burning fossil fuels harm cardiovascular health. They contribute to coronary heart disease, the leading cause of death in the country; hospitalizations for heart attacks; and congestive heart failure, when the heart cannot pump enough blood and oxygen to support other organs in the body.

**NERVOUS SYSTEM** Pollutants released by burning coal target the nervous system, particularly the brain, leading to serious neurological consequences. These include stroke and loss of intellectual capacity due to mercury exposure.

Finally, burning fossil fuels contribute to climate change by releasing large quantities of carbon dioxide and methane. Climate change leads to extreme weather events that can severely affect health, from heat waves, droughts and extreme storms to expanding the habitats of disease-carrying insects.

Fortunately, a reduction in our reliance on fossil fuels will allow dramatic improvements to human health. That means that energy efficiency benefits health.

**The benefits of energy efficiency.** When we improve our efficiency, we reduce the cost of doing business or running a household. We also strengthen our economy by producing goods at a lower cost and creating jobs.



Health Effects of Fossil Fuel Pollutants

**A big bang for your buck.** Technology upgrades to improve the way your home, building, or business functions typically require some up-front investment. Investments in new systems, better lighting, and insulation lower energy bills. In fact, many types of efficiency upgrades can generate savings for decades!

**Helping the local economy.** Some investments, such as insulation in an attic or replacement of an air conditioner, require the help of a specialized installer. This creates local jobs. Further, the money that is saved on utility bills goes back into the pockets of home and business owners. This "extra" money gets spent by families and businesses, creating even more jobs in the local economy.

**Helping those who need it most.** Improving energy efficiency benefits everyone, but especially those sensitive to volatile energy prices: people on fixed or lower incomes. A wide variety of programs are offered by the federal government, states, utilities, and local municipalities to ensure that energy efficiency upgrades are affordable and available to those who need them most.

**Energy efficiency is good for our economy, our environment and our health.** New regulations limiting greenhouse gases from power plants provide an opportunity for us to scale up energy efficiency programs, since energy efficiency is generally the lowest cost compliance option. States should look to energy efficiency as a first and best option for reducing air pollution, and should include energy efficiency as a substantial part of their plans to comply with federal clean air regulations.

# EVERYDAY ENERGY EFFICIENCY

Energy efficiency can work for you to reduce the energy you consume without reducing your quality of life.

Here are 23 easy and affordable ways:



1. Refrigerators and freezers should not be located near the stove, dishwasher, or heat vents or exposed to direct sunlight—they will use more energy to remain cool when exposed to warmth.
2. Install a ceiling fan. You can save money by using a fan instead of highly energy-consuming AC.
3. Use a convection oven or convection setting to use 20% less electricity than conventional ovens.
4. Use a power strip. It will allow you to easily turn off all power to electronic devices at one time.
5. Switch to washing laundry in warm or cold water instead of hot water. Wash hands with cold water too.
6. Allow dishes to air-dry, or run the dishwasher with a full load only—and use the energy saving mode.
7. Switch out old incandescent light bulbs for energy-efficient LED and CFL bulbs.
8. Plug up air leaks around windows with caulk. Install draft guards for doors.
9. Make sure your heating and cooling ducts aren't leaking. If they are, use duct sealant to repair.
10. Use programmable thermostats that switch on and off at set times.
11. Install storm windows.
12. Use as much natural sunlight as possible. (Use curtains in the summer to stay cool.)
13. Rather than using a dryer machine, hang clothes to dry.
14. Adopt a home and office policy to turn off lights, computers, monitors, fax machines, copiers, and printers at night.
15. Ask your utility company if they offer green energy purchasing programs.
16. Clean the lint trap every time you use the dryer. Excess lint is a fire hazard and prolongs the time required for clothes to dry.
17. Get a free home energy audit. You can save up to 30% off your energy bill and 1,000 pounds of CO2 a year. Energy Star can help you find a specialist in your area.
18. Cover pots while cooking. Use pressure cookers, steamers, crock-pots, and slow cookers: they can save 70-75% energy.
19. Keep garage doors closed in the winter. An open garage door sucks warm air out of your home and lets cold drafts in.
20. Turn off the stove or oven 5-10 minutes before cook time is up. Let the trapped heat finish the cooking.
21. Use halogen light bulbs for outdoor lighting—they use 25% less energy. Put lights on timers when you're away from home instead of leaving them on all day.
22. Unplug your laptop, cell phone, coffee maker, toaster, and camera once they are fully charged. They will always draw power when plugged in.
23. Contrary to popular belief, do not let your car idle in the morning! Driving the car slowly warms it faster than letting it idle.