

Why are we concerned about vehicle emissions?

Vehicles emit many pollutants into the air, including carbon monoxide, carbon dioxide, hydrocarbons, nitrogen oxides, sulfur oxides, and volatile organic compounds. These pollutants then also combine to form secondary pollutants such as fine particulate matter and ozone.

Emissions from an individual car are generally low relative to the smokestack image many people associate with air pollution. However, emissions from many cars on the road or idling in a waiting area add up and seriously impact air quality.

In some areas of Idaho, vehicle emissions are the number one cause of air pollution.

What are the health impacts of vehicle exhaust?

The most obvious health impact of vehicle emissions is on the respiratory and cardiovascular systems. Exposure to air pollutants can lead to increased susceptibility to respiratory infections, abnormal heart rhythms, and inflammation in arteries, veins and capillaries, and possibly even a heart attack.

Children and the elderly are sensitive groups that are at higher risk from air pollution, especially children with asthma or other lung diseases. The elderly and others with heart or lung diseases such as asthma and congestive heart failure are at high risk.

Symptoms to watch out for include coughing, wheezing, shortness of breath, phlegm production, chest tightness, chest pains, palpitations, and/or unusual fatigue.

For More Information

Idaho Department of Environmental Quality

State Office
Air Quality Division
1410 N. Hilton
Boise, ID 83706
(208) 373-0502

Regional Offices

Boise
1445 N. Orchard
Boise, ID 83706
(208) 373-0550
toll-free: (888) 800-3480

Coeur d'Alene
2110 Ironwood Parkway
Coeur d'Alene, ID 83814
(208) 769-1422
toll-free: (877) 370-0017

Idaho Falls
900 N. Skyline, Suite B
Idaho Falls, ID 83402
(208) 528-2650
toll-free: (800) 232-4635

Lewiston
1118 F Street
Lewiston, ID 83501
(208) 799-4370
toll-free: (877) 541-3304

Pocatello
444 Hospital Way #300
Pocatello, ID 83201
(208) 236-6160
toll-free: (888) 655-6160

Twin Falls
650 Addison Ave. W,
Suite 110
Twin Falls, ID 83301
(208) 736-2190
toll-free: (800) 270-1663

Web Resources

Vehicle Emissions and Air Quality
www.deq.idaho.gov/vehicle-emissions

Clean Air Zone Program for Citizens
www.deq.idaho.gov/clean-air-zone-citizens

You Are What You Breathe (Fact Sheet)
www.deq.idaho.gov/media/346824-aq_and_health_fs.pdf

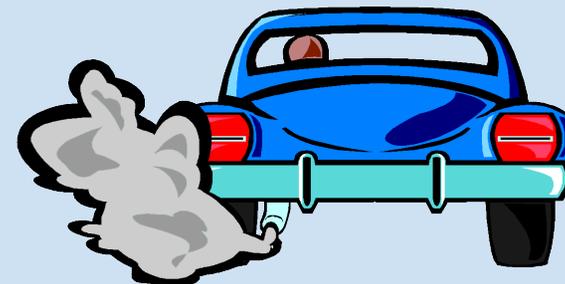
Idaho Department of Health and Welfare's Asthma Prevention and Control Program
www.healthandwelfare.idaho.gov/portal/alias__Rainbow/lang__en-US/tabID__3395/DesktopDefault.aspx

Clean School Bus USA Program
www.epa.gov/otaq/schoolbus/index.htm



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Vehicle Emissions, Air Quality, and Your Health



Five things we can all do to minimize air pollution from our vehicles



Idaho Department of Environmental Quality
www.deq.idaho.gov



Five Easy Ways to Control Air Pollution from Vehicle Emissions

- 1. Drive less.** This is the single most effective way to reduce vehicle emissions. Ride the bus, carpool, share trips, walk, bike, or use some other form of alternative transportation whenever possible. Combine trips to the same areas.
- 2. Turn off your engine when waiting.** Avoid idling if you will be sitting in your car longer than 10 seconds. (See *Clean Air Zone Idaho* information at right.) You can also reduce emissions and save fuel by minimizing use of the vehicle's air conditioner.
- 3. Drive at a medium and steady speed.** Try to "smooth" your driving by accelerating and decelerating gradually, and anticipating stops and starts for traffic lights, changing traffic speeds, and so on. Most cars get the best gas mileage at between 35 and 45 miles per hour. Higher speeds result in greater emissions.
- 4. Get regular tune-ups.** Vehicles with worn spark plugs or clogged fuel or air filters do not run efficiently, which causes them to emit more pollution. Poorly maintained or malfunctioning vehicles can release as much as 10 times the emissions of a well-maintained one.
- 5. Consider purchasing a low-emissions vehicle.** Check the posted fuel-efficiency rating. The greater the efficiency, the lower the emissions per mile.

Driving a private car is a typical citizen's most "polluting" daily activity.

What is Clean Air Zone Idaho?

The *Clean Air Zone Idaho* program is an effort to discourage idling of vehicles. The goals of *Clean Air Zone Idaho* are to:

- Provide a healthier environment for Idaho's citizens by reducing exposure to vehicle exhaust
- Reduce vehicle emissions
- Encourage use of cleaner alternative fuels

The *Clean Air Zone Idaho* program began in 2004 with an initiative to reduce children's exposure to school bus diesel exhaust by discouraging idling of buses and encouraging use of alternative fuels in school buses. The Idaho Department of Environmental Quality (DEQ) asked schools to adopt no-idle zones outside their schools, to retrofit buses, and to use cleaner fuels in their buses when possible. To date, nearly 300 schools in Idaho have joined the program.

In 2006, DEQ expanded the program to include community facilities where vehicles are often seen idling, such as public building parking lots, airports, parks, and sports areas. Over 40 Idaho cities and universities are now participating in the program.



The program has since expanded to include businesses with drive-up windows where customers often sit and idle while waiting for service. Typical drive-up businesses include banks, fast food restaurants, and coffee shops. Look for the "Turn off your engine" sticker at participating retailers.

Common Myths About Idling

Myth #1: The engine should be warmed up before driving. **Reality:** Idling is not an effective way to warm up your vehicle, even in cold weather. The best way to do this is to drive the vehicle. Modern engines need no more than 10 seconds of idling on winter days before driving.

Myth #2: Shutting off and restarting your vehicle is hard on the engine and uses more gas than if you leave it running. **Reality:** Frequent restarting has little impact on engine components such as the battery and the starter motor. Component wear caused by restarting the engine is estimated to add \$10 per year to the cost of driving, money that will likely be recovered several times over in fuel savings from reduced idling. The bottom line is that over 10 seconds of idling uses more fuel than restarting the engine.