

Potential sources of carbon monoxide (CO) and carbon dioxide (CO₂) contamination in scuba breathing gas (air and mixtures)

- Engine exhaust (from cars, boats, generators, etc.)
- Cooking areas (including charcoal barbeque and gas grills, kitchen vents, nearby restaurants, etc.)
- Cleaning supplies and fluids stored nearby
- Volatile fluids and any hydrocarbons (paint, gas or diesel fuel, solvents, aerosols, etc.)
- Smoke from any source, including from trash, grass or forest fires
- Biomass accumulation (mulch or fertilizer piles, composting operations, waste dumps, intentional production of biomass fuel)
- The use or storage of pesticides (including insect repellents)
- Nearby building ventilation outlets
- Dust or dirt
- Sources of water vapor or moisture (steam, standing water in ponds, pools, etc.)
- Building road work in the immediate vicinity, especially painting, chemical treatments and resurfacing
- Effluent (sewage, water-borne waste, solid waste, etc.)
- Discharge from any building, factory or processing plant
- Overheating or even burning of the compressor oil - resulting in the production of CO inside the compressor
- Oil on the outside of a poorly maintained compressor, which heats up and produces vapor, which may contain CO that is then drawn into the compressor intake
- Exhaust from a gas-powered compressor (typically diesel, gasoline and other mineral fuels)
- Furnaces, boilers, wood-burning or gas space heaters, water heaters, dryers and cookers
- Gas-powered refrigerators
- Oil, kerosene, or other fueled lamps
- Cigarette and especially cigar smoke
- Paint removers, metal oxide reducers, and other organic solvents, as well as nonflammable contact adhesives that contain methylene chloride (CH₂CL₂) – the liver metabolizes this compound to produce CO
- Welding, and especially where CO₂ is used in the welding gas (CO₂ breaks down to form CO during the welding process)
- Chemicals, reaction agents, and synthesizers

For more information on carbon monoxide contamination, see:

[Carbon Monoxide: The Silent Killer, Carbon Monoxide In HBO Facilities](#)

[Carbon Monoxide: The Silent Killer \(Alert Diver Spring 2017\)](#)

Be sure to assess the possibility of changing winds or moving sources of contamination (like moving vehicles) for a potentially changing hazard as well.

If you are in doubt, test the environmental air and not just the gas in the scuba tanks, and if in doubt, reach out to RiskMitigation@DAN.org for specific recommendations.