Carbon monoxide (CO) is a gas that can kill you quickly. It is called the “silent killer” because it is colorless, odorless, tasteless and non-irritating. If the early signs of CO poisoning are ignored, a person may lose consciousness and be unable to escape the danger. More people die from carbon monoxide exposure than any other kind of poisoning.

Indoors, CO comes from appliances which burn fuels such as wood, oil, natural gas, propane, kerosene, coal and gasoline. CO levels in a home may also vary depending on the presence of cigarette smoke and the types of heating and cooking fuels.

The early symptoms of CO poisoning may be similar to the flu. The following clues will help identify symptoms that could be the result of CO poisoning:

- Symptoms occur or get worse shortly after turning on a fuel-burning device (e.g., generator, vehicle, tool).
- More than one person in the home becomes sick at the same time (it usually takes several days for the flu to pass from person to person).
- Symptoms are brought on by being in a certain location and go away soon after leaving the area.

**What are the symptoms of CO poisoning?**
CO prevents the body from getting oxygen. Symptoms may include headaches, dizziness, nausea, weakness, loss of muscle control, shortness of breath, chest tightness, visual changes, sleepiness, fluttering of the heart, redness of the skin, or confusion. There also may be mild behavioral effects such as slowed reaction time or altered driving skills. At high levels or during continued exposure, CO can cause suffocation, resulting in loss of consciousness, brain damage, or death.

**Are some people more sensitive to the effects of CO?**
CO may affect people differently, depending on age and general health. Even low levels of CO can be a concern for the elderly, infants, the unborn, those with anemia, or those with heart or breathing problems.

**What should I do if I suspect CO poisoning?**
- Get outside immediately to get fresh air. If you suspect that you or someone else has CO poisoning, call 911.
- If possible, turn off non-electrical appliances in the immediate area and leave doors open as you leave.
- Contact the fire department.
- Remember that you cannot smell CO and, as symptoms of CO poisoning increase, you may become confused and less capable of making decisions that could save your life.

**For More Information:**
New York State Department of Health:
[health.state.ny.us/environmental/emergency/weather/carbon_monoxide/index.htm](http://health.state.ny.us/environmental/emergency/weather/carbon_monoxide/index.htm)
Centers for Disease Control and Prevention:
[http://www.cdc.gov/co/](http://www.cdc.gov/co/)
Your local Poison Control Center can be reached at 1-800-222-1222.

New York State Department of Health

**Where does CO come from?**
Indoors, CO comes from appliances which burn fuels such as wood, oil, natural gas, propane, kerosene, coal and gasoline. CO levels in a home may also vary depending on the presence of cigarette smoke and the types of heating and cooking fuels.

**What is carbon monoxide?**
Carbon monoxide is a colorless, odorless, tasteless, and non-irritating gas. It is produced when carbon-containing fuels are burned in an oxygen-limited environment. CO is a common air pollutant and is a major component of vehicle exhaust. CO is also produced by burning coal, wood, oil, natural gas, gasoline, kerosene, and other fuels.

**How does CO affect the body?**
CO enters the body through the lungs and binds with hemoglobin in the blood. CO binds to hemoglobin more than 200 times faster than oxygen. This causes a decrease in the amount of oxygen that can be carried by hemoglobin. CO also affects the brain, causing symptoms such as headache, dizziness, nausea, and confusion.

**What are the symptoms of CO poisoning?**
The symptoms of CO poisoning can be mild or severe, depending on the level of CO exposure and the person’s age, health, and other factors. Mild symptoms may include headache, dizziness, nausea, weakness, and confusion. More severe symptoms can include loss of consciousness, seizures, and death.
<table>
<thead>
<tr>
<th>CARBON MONOXIDE SOURCES</th>
<th>ACTION STEPS TO PREVENT POISONING</th>
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<tbody>
<tr>
<td><strong>Heating appliances:</strong></td>
<td>• Schedule annual maintenance for furnaces and other heat sources.</td>
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<tr>
<td>furnaces, water heaters, portable non-electric space heaters</td>
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<tr>
<td><strong>Cooking appliances:</strong></td>
<td>• Never operate these appliances for warmth.</td>
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<tr>
<td>non-electric kitchen ranges</td>
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<tr>
<td>gas or briquette grills</td>
<td>• Never use indoors or in a semi-enclosed space, such as a garage, shed or porch.</td>
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<tr>
<td><strong>Portable generators</strong></td>
<td>• Never use in the home or basement.</td>
</tr>
<tr>
<td><strong>Tools and equipment:</strong></td>
<td>• Never use indoors or in a semi-enclosed space, such as a crawlspace, garage, shed or porch.</td>
</tr>
<tr>
<td>lawn mowers, snow blowers, chain saws, pressure-washers</td>
<td></td>
</tr>
<tr>
<td><strong>Vehicles</strong></td>
<td>• Never idle in garage or other enclosed structure.</td>
</tr>
<tr>
<td><strong>Boats:</strong></td>
<td>• Keep away from engine and generator exhaust outlets when engine is running.</td>
</tr>
<tr>
<td>engines, gas generators, cooking ranges, space heaters, water heaters, other nearby boats</td>
<td>• Stay off back deck and away from swim platforms that are near exhaust outlets while engine is running.</td>
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<tr>
<td><strong>What about CO alarms?</strong></td>
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</tbody>
</table>

CO alarms are designed to provide warning as CO levels in the air approach dangerous levels.

- Install a CO alarm which is certified by Underwriters Laboratories (UL), and is battery-powered or has a battery back-up.
- Place CO alarms according to manufacturer installation instructions.
- Test the CO alarm frequently, at least twice a year when clocks are adjusted for daylight saving time, and replace dead batteries when necessary.
- Read the CO alarm owner’s manual to learn about the warning sounds and how to test the device.
- CO alarms expire after several years. Replace the alarm as indicated by the manufacturer.

New York State requires CO alarms in residences including single-and multiple-family homes, and in multiple dwellings such as hotels/motels, boarding houses, apartment buildings, fraternity and sorority buildings, and school dormitories. The requirements also apply to structures that have an attached garage or have appliances, devices or systems that may emit CO. For assistance with CO alarm placement, contact your local fire department.