More than 400 people die each year in the United States from carbon monoxide (CO) poisoning, according to the Centers for Disease Control and Prevention (CDC) whose data includes consumer products and vehicles.

- CO is called the invisible killer because you cannot see CO or smell it. This poisonous gas can come from many sources, including cars, malfunctioning fuel-burning appliances such as furnaces, ranges, water heaters and room heaters; and engine-powered equipment such as portable generators. Burning charcoal in fireplaces or in barbeque grills inside a home, or in semi-enclosed areas can also result in lethal carbon monoxide levels. Sustained exposure to high levels of CO can quickly incapacitate and kill you.

- Make sure to have working CO alarms in the home on every level and outside each separate sleeping area. CO alarms are designed to alarm before potentially life-threatening levels of carbon monoxide are reached.

- If you choose a plug-in type CO alarm, make sure that the alarm also has battery backup. This ensures that the CO alarm will continue to work if the electricity goes out, which is particularly important in many situations when portable generators are used. Replace batteries in alarms according to the manufacturer’s recommendations. Test alarms once a month to make sure they are working.

- Almost all homes have at least one smoke alarm. However, carbon monoxide alarms are much less common. The American Housing Survey asked if the household had a working carbon monoxide alarm. Only two out of five said “yes.”

- CO alarms have varied expiration dates, but if unsure, consider replacing it. Many newer CO alarms now have end-of-life indicators. Replace all CO alarms according to manufacturer’s instructions, or when the end-of-life signal sounds.

- Install CO alarms that meet the current safety standard requirements. CPSC recommends buying alarms that meet the UL 2034 safety standard. Look for UL or CSA listings on the packaging.

- Never ignore a CO alarm when it sounds. Get outside immediately, and call 911 from a fresh-air location. The emergency responders and fire department will provide information for safe home re-entry. If you live in an area without access to 911, call your fire department.

- At low levels, CO poisoning symptoms can include dizziness, headache or flu-like symptoms. At high levels, victims can have mental confusion, vomiting, and they can die. At extremely high levels, it is possible to lose consciousness suddenly without experiencing less severe symptoms.

- Proper installation, operation, and maintenance of fuel-burning appliances in the home is the most important factor in reducing the risk of CO poisoning.

- Make sure appliances are installed and operated according to the manufacturer’s instructions and local building codes. Most appliances should be installed by qualified professionals.

- Consumers should have their heating system inspected by a qualified professional and serviced every year to make sure the system is working properly. Inspections should also include checking for proper exhaust ventilation through vents chimneys and flues.

- Portable generators must be operated outside only. Never operate one inside a home, garage, basement, crawlspace, shed, or in a semi-enclosed space like a porch close to the house. Keep generators, as well as any other equipment with an engine in it, at least 20 feet away from the house. Poisonous carbon monoxide from portable generators can kill you and your family in minutes.