

## CARBON MONOXIDE—THE SILENT KILLER



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Why not remind boaters about the risk of carbon monoxide (CO) poisoning during National Safe Boating Week?

As more and more boaters use auxiliary generators to power the electrical needs of their boats, or small fossil fueled stoves to heat them in cold weather, incidents of carbon monoxide poisoning have been increasing. CO forms from the incomplete combustion of fuels such as gasoline and diesel. On average about 10 to 12 percent of exhaust gas is CO. It is colorless and odorless—and a killer.

Your first defense against it is to outfit your boat with a carbon monoxide detector, which will set off an alarm when CO is detected. A little over 650 parts per million can be toxic. If you have an engine of any type running and you develop any of the following symptoms—a headache, dizziness, or nausea—consider that CO might be the cause. At the first sign of these symptoms immediately get into fresh air and shut off the motor. Continued exposure may be fatal.

What else should you be on the lookout for? One danger sign, while underway, is the flag on the stern flapping forward instead of aft. This is known as “backdrafting” or “the station wagon effect,” as the forward motion of the boat and its superstructure cause the exhaust to be sucked over the transom and back into the boat. I know, as it happened a few years ago during a flat calm as my crew and I motored off the coast of Maine.

Fortunately, we recognized the symptoms, ventilated the boat by opening as many ports as possible, lowered the dodger and stood up in the cockpit. We kept everyone out of the cabin and in fresh air. All this took care of the problem.



Backdrafting can occur when a boat is operated at a high bow angle.

A very serious danger is what is known as “teaking.” Done mostly by kids, teaking is being towed by or on something directly behind the boat and in front of or near the exhaust stream. Other dangers include having ventilators close to exhaust ports, having exhaust ports under swim platforms, and enclosing your boat if it is not designed to be enclosed.

Close examination of your boat, to identify where exhaust ports are in relation to openings, where CO can enter, is absolutely critical to the safety on all aboard. Keep in mind too that CO poisoning can occur when alongside or docked next to boats with their engines running.



Exhaust from nearby vessels can send CO into your boat's cabin or cockpit.

To sum up, recognizing CO symptoms, shutting off the source of the CO, and getting affected persons into fresh air are how to handle this type of emergency. Afterwards you can remedy problem areas by making physical changes in your boat. Such alternations are best done by a professional.

Stay safe!