

Know Before You Go on the Water

Coloradoans are Drawn to the Water in our Beautiful State

There is no greater feeling than being out on one of Colorado's bodies of water. Even in our landlocked state, or maybe because of it, boating is a great past-time and family activity. Colorado people enjoy water right here, like skiing behind a speed boat at Chatfield Reservoir, as well as heading off to pilot a cabin cruiser in warmer waters or living onboard a houseboat, a very popular vacation option.

No matter what brings you to the sport, as a boater you have a responsibility to know and understand the risks and the safety procedures needed to avoid the dangers of boating. All boaters keep watch in the sky for unpredictable weather changes, and they quickly learn routine maintenance and trouble shooting so their craft operates well.

However there's another danger lurking around every vessel which the general public rarely thinks about. This danger can't be seen, smelled or tasted, yet according to recently updated statistics compiled by the National Park Service, the US Department of Interior, the National Institute for Occupational Safety and Health, and Double Angel Foundation, it has killed or stricken hundreds of unsuspecting people nationwide in the last couple of decades. See www.doubleangel.org for case listings.

That killer is carbon monoxide (CO), the colorless, odorless and tasteless gas that is produced when a carbon-based fuel—such as gasoline, propane, charcoal or oil—burns. Sources of carbon monoxide on boats may include engines, gas generators, cooking ranges, space and water heaters, improper ventilation while in motion (the "station wagon effect") and exhaust leaks, or even from boats moored nearby.

When CO enters a person's bloodstream through the lungs, it blocks the oxygen the body needs to survive. Prolonged exposure to low concentrations or very quick exposure to high concentrations can be fatal. Early symptoms of CO poisoning include irritated eyes, headache, nausea, weak-

Play Safe -

Know the Dangers of Carbon Monoxide



Boating on Chatfield Reservoir

ness and dizziness. They are often confused with seasickness or intoxication, so those affected may not receive the medical attention they need.

Boat owners, and, in fact anyone going on a boat, need to understand that CO can harm and kill, whether a person is inside or outside the boat. The cabin areas alone are not the only danger zones. Carbon Monoxide can collect in areas around a boat such as near the swim platform, which is generally found close to the engine exhaust, and areas where boat overhangs can create pockets of air.

Double Angel Foundation was formed by Ken and Bambi Dixey after their two sons, Dillon and Logan, were swimming behind a docked houseboat on Lake Powell in 2000

and drowned following exposure to carbon monoxide. The efforts have helped. While CO-free boat generators and new retrofitting of exhausts has made boating safer, people are still dying from what is truly a preventable tragedy if boaters stay diligent in CO awareness.

Install and maintain CO detectors inside the boat—and don't ignore any alarm. Perform a test of each one before going on the water. Know where your engine and generator exhaust outlets are located and keep everyone away from these areas. Inspect exhaust system components regularly and have a qualified technician perform an annual inspection.

Never sit on the back deck, teak surf or hang on the swim platform while the engines or generators are running. Once the engines and generator have been shut off, allow enough time to pass before swimming to let the gas clear. Keep forward-facing hatches open always to allow free air circulation in living spaces.

Last, make sure everyone on the boat is educated about the dangers of carbon monoxide. Then go out and have a great day on the waters of Colorado and beyond.

Where can CO ACCUMULATE?

ANYWHERE in or around your boat

How can CO ACCUMULATE?



Inadequately ventilated canvas enclosures



Exhaust gas trapped in enclosed places



Blocked exhaust outlets



Another vessel's exhaust. CO from the boat docked next to you can be just as deadly.



"Station wagon effect" or back drafting.



At slow speeds, while idling, or stopped. Be aware that CO can remain in or around your boat at dangerous levels even if your engine or the other boat's engine is no longer running

Source: U.S. Coast Guard
"Carbon Monoxide Poisoning—What You Can't See..."