Boating and Carbon Monoxide Poisoning

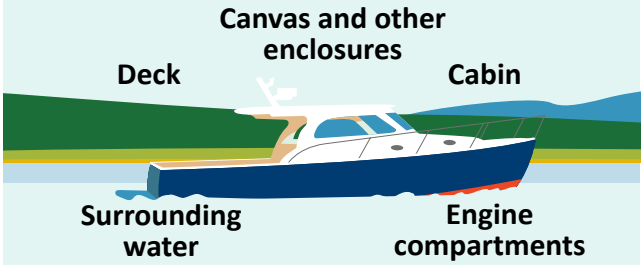
Michigan is the Great Lakes State, where there are many opportunities for fun on the water. Carbon monoxide (CO) is a poisonous gas that can be a danger while boating. **You cannot see, taste or smell CO, but it can be deadly when you breathe it in**. CO is present wherever fuel is burned, like a running engine or a portable generator. CO can collect and build up on and around a boat. It is important to know CO dangers when you are underway, moored or anchored to prevent CO poisoning.

CO is found where carbon-based fuel is burned.

CO forms where fuel, like gasoline, propane and oil, is burned. On a boat, common ways to burn fuel include:

- Engines.
- Portable generators.
- Onboard equipment and appliances (e.g., stoves, grills and heaters).

CO can collect in many places on a boat.



Be Aware.

Every year do the following:

- Get your engine and exhaust inspected by a professional.
- Properly install and maintain fuel-burning appliances and equipment on your boat.

Remember: Do not run a boat's engine in enclosed or partially enclosed spaces, like a boat shelter or garage.

Every month do the following:

- Check for loose clamps, cracked or damaged hoses, etc.
- Look for leaks. Signs include rust or black streaks, water leaks or corroded or cracked fittings.
- Make sure ventilation systems are in good repair and not blocked.

Before leaving the dock, do the following:

Check the exhaust

- Be sure water flows away from the exhaust outlet when the engine or generator is running.
- Be aware of changes in the exhaust's sound. This could mean there is a problem.

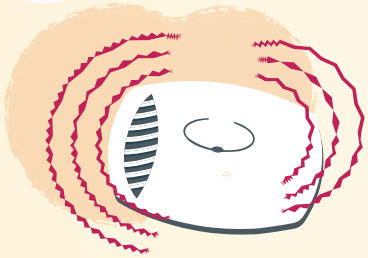
When underway:

- Avoid closed-off, poorly ventilated areas of a boat when its engine is running.
- Limit the time your boat idles or runs at slow speeds. CO can accumulate on your boat.
- Never block exhaust outlets even when you dock.
- Dock, beach or anchor **at least 20 feet away** from the nearest running boat or boat with a running generator.

Stay safe playing in the water.

- Swim and play away from areas where running and moving boats are.
- Tow passengers **at least 20 feet away** from the back of the boat.
- Never sit or hang on the back deck or swim platform while the engines are running.
- Watch children closely when they play or swim near rear engines, decks or water platforms. CO can build up on the back of the boat or surrounding water and linger, even when the boat is off.

Stay Prepared.



Install CO detectors.

- Install a marine CO detector.
- Follow the manufacturer's proper placement instructions for CO detectors.
- Test the CO detector every time the boat is used.
- Replace alkaline batteries twice a year. An easy way to remember is during time changes (spring and fall).
- Replace CO detectors every five years or according to the manufacturer's directions.

Know CO poisoning symptoms.

CO poisoning has flu-like symptoms, including:

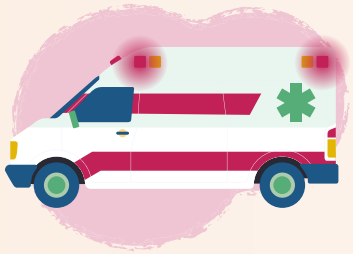
- Headache.
- Dizziness.
- Nausea.
- Vomiting.
- Fatigue.
- Weakness.
- Chest tightness.
- Confusion.
- Unconsciousness.
- Coma.

Remember:

- People who are sleeping or intoxicated might not notice CO poisoning symptoms before it's too late.
- Do not assume "sea sickness" is the cause of the symptoms, especially when more than one person is not feeling well.
- CO poisoning can cause people to pass out and drown.

Symptoms should not be ignored. You could DIE within minutes if you do nothing.

Get to Fresh Air.



If you suspect CO poisoning, have symptoms or if your CO detector goes off:

1. Leave the enclosed or partially enclosed space and move to fresh air right away.
2. Call 911.
3. Stay away from the enclosed or partially enclosed space until the fire department tells you it is safe to return, even if you aren't experiencing symptoms.

CO poisoning is preventable.

Be Aware. Stay Prepared. Get to Fresh Air.

Learn more about CO poisoning.

Go to Michigan.gov/CarbonMonoxide
or scan the QR code.

MDHHS
Michigan Department of Health & Human Services

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