



Cold Water Paddling & Safety Guide

Fact: "Cold Water Kills"

Coeur d'Alene Canoe & Kayak Club's goals for its members are to promote safety awareness and to expand your opportunity to enjoy the area's waterways during all seasons of the year. During the Winter & Spring months it is imperative to take proper precautions to avoid hypothermia and a response condition known as "cold shock." This brochure is for the purpose of providing information to help you make good decisions, to keep yourself safe & healthy, and to have fun paddling no matter what the season.



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Hypothermia & Cold Shock

Hypothermia is defined as:

"A decrease in the core body temperature to a level at which normal muscular and cerebral functions are impaired."

Cold shock is defined as:

"A series of involuntary reactions you may experience as a result of an unexpected plunge into cold water."

Cold weather and water poses a serious threat to unprepared kayakers. There are three important and related safety issues involved in cold water paddling: 1) the risk of hypothermia; 2) the risk of cold shock; and 3) being ill-prepared for the weather conditions.

Hypothermia is much easier to prevent than to treat. You don't need to capsize in a kayak to become hypothermic. Hypothermia can have a sudden or gradual onset from progressive exposure to temperatures below 50°, gusting wind, and/or being wet from rain, water-spray, and perspiration. Cold shock can happen in water temperatures well-above 50° and, due to the severity of rapid onset and involuntary responses, can result in sudden drowning.

These involuntary responses can be, but are not limited to: the gasp reflex, hyperventilation, inability to hold your breath, and panic, which can immediately incapacitate your breathing control and creates a high risk of sudden drowning. You may occasionally hear of a kayaker found upside down in their kayak with no apparent attempt to exit in calm waters...this is likely a result of cold shock.

How to Recognize it

If you are shivering, and your hands and feet are cold, you are becoming hypothermic. This can easily be addressed by wearing appropriate gloves, footwear and a waterproof hat (75% of heat loss is through the top of your head when ambient air temperature is less than normal body temperature.) Watch for the—umbles, stumbles, mumbles, fumbles, and grumbles of hypothermia which show changes in motor coordination and levels of consciousness.

Symptoms & signs of varying degrees of hypothermia are as follows:

Mild Hypothermia

- Core temperature 98.6-96° F.
- Shivering-not under voluntary control
- Can't do complex motor functions due to vasoconstriction to extremities

Moderate Hypothermia

- Core temperature 95-93° F.
- Dazed consciousness
- Loss of fine motor skills (can't zip up jacket)
- Slurred speech
- Irrational behavior or a "I don't care attitude"

Severe Hypothermia

- Core temperature 92-86° F. (Immediately life-threatening)
- Pale skin & dilated pupils
- Shivering occurs in waves (violent then pause)
- Loss of consciousness
- Person may fall or slump over in boat

You can assess your paddling partner by asking a question that requires higher reasoning (i.e. count backwards from 100.) If they aren't able to do it, or if they are combative, suspect possible symptom onset. These symptoms should not be ignored, immediately get to shore to start warming procedures.

What to do about it

For mild hypothermia, prevent further heat loss, take steps to rewarm (add or change clothing.) Give warm, sweet drinks and absolutely no alcohol, it accelerates heat loss. For moderate hypothermia, stronger methods to rewarm the victim will be required like a campfire, space blankets or sleeping bag, warm liquids once the person is coherent and get checked by a doctor ASAP. For severe hypothermia (likely due to immersion), once on dry land, avoid jarring victim while changing clothing ASAP, ignore pleas to be left alone, do take extraordinary steps to rewarm as quickly as possible—immediately perform CPR if necessary.

Preparation is the key to avoiding disaster. You must dress for the water temperature, not the air temperature. In cold water, below 60° F., a drysuit is required. Above that water temperature, a wetsuit (neoprene) may be adequate. A drysuit alone will not ensure against heat loss due to immersion, multiple layers are required. Never wear cotton because it does not insulate once wet. Other natural fibers are acceptable, such as silk and wool as insulators. Better choices are new man-made materials such as neoprene, polartec fleece, and goretex.

