

Coldwater Safety

Cold Shock

A new theory, developed within the last few years by Moulton Avery may well explain what is happening to some paddlers when suddenly immersed in cold water. Cold Shock can best be described as a series of physiologic events within the human body, characterized by incapacitation, immediate loss of breathing control and a high risk of sudden drowning.



Cold Shock Responses

Cold shock happens when you are suddenly immersed in cold water. Don't mistakenly think that the water must be freezing. Cold shock can occur even in water temperature above 50°F. Wearing a dry suit, without proper clothing beneath is not protection from cold shock.

Immersion in cold water is characterized by the rapid development of a number of shock responses that can result in sudden drowning. A few of these responses can be consciously suppressed or moderated but most are beyond control. The most important shock response involves loss of the ability to control breathing.

The Gasp Reflex

Loss of breathing control begins the moment water makes contact with the skin, triggering a series of huge involuntary gasps for air. If your head is underwater when you gasp, you will immediately drown. Example: Oct. 1987, Water temperature: 41°F. Fit paddler, calm waters, folding double kayak with 36" beam. Found hanging upside down in his boat, having made no attempt to exit. Not dressed for immersion.

Have you ever been in the shower when the hot water stops and cold water continues? The uncontrolled gasp is what we worry about. Don't think you can control the gasp reflex, it is a physiological reflex. The only way to protect against the gasp reflex is to dress properly with full head gear including wet suit hood, nose clips and ear plugs. This is a subject we are still learning about and all the facts are not in.