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Title: Changes in hemostatic parameters in fish following rapid decompression

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Abstract: The effect of rapid decompression on the stress-accelerated blood coagulation system of male and fingerling coho salmon (Oncorhynchus kisutch) was examined after simulated 100- and 200-fsw dives. Blood samples taken either through a dorsal aorta cannula or from a severed caudal peduncle were analyzed for total plasma protein and fibrinogen concentrations, prothrombin times (PT), and partial thromboplastin times (PTT). The effect of mild decompression (100-fsw) on the hemostatic mechanism of both adult and fingerling coho salmon indicated an alternating fibrinogen concentration, declining from normal levels 1 min after decompression, followed by an increase 10 to 15 min later with an eventual loss of fibrinogen to one half the original level an hour after decompression. Partial thromboplastin times were found to increase 10 to 15 min after decompression occurred. Prothrombin times showed an increase 1 hour after decompression in adult salmon, whereas in fingerlings, prothrombin times increased almost immediately from normal levels. The effect of severe decompression (200-fsw) showed similar trends, but at an accelerated rate. It was concluded that both mild and severe decompression activates the hemostatic mechanism of fish which may eventually result in consumption coagulopathy at a greater rate than reported for experimental mammals. Age Factors Animals Blood Coagulation Tests Blood Proteins/analysis Blood Specimen Collection/methods *Decompression Fibrinogen/analysis *Hemostasis *Pressure Salmon/*physiology Support, U.S. Gov't, P.H.S.

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