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""Why do human food and water requirements differ?""

""The body's minimum daily water requirements"" ""The mechanism of dehydration and the body's responses""; ""Dehydration and heat tolerance""; ""Survival time without drinking water""; ""6. Water That Makes Men Mad""; ""The composition of seawater""; ""Ingestion of seawater""; ""Survival at sea""; ""Lessons from the USS Indianapolis""; ""A practical approach to salt and water loss at sea""; ""7. Tolerance to Heat""; ""Mammalian homeothermy""; ""Humans as tropical primates""; ""Body heat balance""; ""Heat acclimatization""; ""Heat acclimatization and physical fitness""

""The limitations of human tolerance to heat"" ""Heat illnesses""; ""Death by heatstroke""; ""8. Endless Oceans of Sand""; ""The camel and the Berber""; ""Desert lessons from Pablo and the Hajj""; ""Thermal stress and behavior""; ""Importance and regulation of heat-escape activities""; ""9. Hypothermia""; ""The effects of extreme cold on the extremities""; ""Settings for systemic hypothermia""; ""The physiology of hypothermia""; ""Unexpected effects of cold and hypothermia""; ""The subtle effect of winter on human mortality""; ""10. Life and Death on the Crystal Desert""; ""Life in Antarctica""

""The race for the South Pole"" ""Failure to adapt to Antarctic conditions""; ""Engineering out the need to tolerate cold""; ""Human acclimation to cold""; ""Estivation""; ""Hibernation""; ""Hibernation, energy conservation, and suspended animation""; ""11. Survival in Cold Water""; ""The sinking of the Titanic""; ""Water temperature and human survival""; ""Prediction of survival time in cold water""; ""Survival behavior in cold water""; ""Hypothermia in deep sea diving""; ""Respiratory heat losses and slow cooling""; ""12. Air as Good as We Deserve""; ""Life in an oxidizing atmosphere"" ""Biological oxidations and oxygen toxicity""

Sommario/riassunto

This volume identifies the key determinants of life or death in extreme environments from a physiologist's perspective, integrating modern concepts of stress, tolerance, and adaptation into explanations of life under nature's most austere conditions.
