
The Neurosciences and the Practice of Aviation Medicine is an essential book for those involved in the practice of aviation medicine where familiarity with the effects of the aviation environment and understanding the pathophysiology of relevant disorders of the nervous system are of prime concern. It is concerned with the physiology, pathology and clinical aspects of exposure to high altitude, linear and angular accelerations, and circadian de-synchrony.

The chapters on circadian rhythmicity and orientation deal with the impaired alertness and sleep disturbance associated with de-synchrony while chapter on spatial orientation and disorientation deals with various illusions experienced by aircrew. Chapters on Hypoxia cover operational and clinical aspects of exposure to acute hypoxia, cabin pressurization, acclimatization to high altitude and decompression at high altitude. In addition disorders of particular significance to the practice aviation medicine such as epilepsy, hypoglycemia, headache, traumatic brain injury etc are also given detailed attention.

The text relates the potential effects of the environment to disorders of the central nervous system that are directly relevant to individuals operating in the aviation domain. The potentially adverse effects of aviation environment and of disorders of nervous system are brought together. With this integration the text also covers neurological examinations and investigations pertaining to aircrew along with current management and therapeutics. As a whole this book brings the neurosciences to operational and clinical aviation medicine.

Hypoxia and Exercise. Edited by: Robert Roach, Peter Wagner and Peter Hackett Publisher: Springer

With a mission to share with a broader audience some of the intellectual excitement that embodies the spirit of Hypoxia meetings, the 14th volume in the series focuses on cutting edge research at the interface of hypoxia and exercise. The book, a collection of papers presented during the 14th International Hypoxia Symposium held on February 2005 in Canada, begins with a tribute to John Burnard West, a name well known to the “Hypoxia” community for his contributions to the Physiology and Pathophysiology of High Altitude.

This piece of work covers the range from molecular mechanisms of muscle fatigue and muscle wasting to whole body exercise on the world’s highest mountains. State of the art papers on training at high altitude for low altitude athletic performance are also featured in addition to studies on arterial hypoxemia in exercise, sleep & hypoxia, genetic components of adaptation to hypoxia, erythropoietin, cell stress pathways and hypoxia, the role of red blood cells, ATP release and hemoglobin in control of vasoreactivity, the eye at high altitude and pulmonary hypertension in high altitude residents. An update on Lake Louise Consensus methods to measure the Hypoxic Ventilatory Response is also featured.

Each topic has been well presented; the layout is straight forward and elegant, with self explanatory line diagrams, graphs and tables. The figures are particularly well rendered with clarity aided by the avoidance of colours.

In summary, the book Hypoxia and Exercise justifies its mission and is recommended as an essential reference in the fields of Aerospace Medicine, Physiology, Neuroscience/Neurology, Anesthesiology, Cardiology, and Biochemistry.

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