

# Aerospace Medicine and Human Performance

---

JANUARY 2015 VOLUME 86 NUMBER 1

## EDITORIAL

### 1 Welcome to the New Blue Journal

*F. Bonato*

## PRESIDENT'S PAGE

### 2 The AsMA Journal: Making a Difference in Aerospace Medicine

*P. J. Scarpa*

## RESEARCH ARTICLES

### 3 Intraocular and Intracranial Pressures During Head-Down Tilt with Lower Body Negative Pressure

*B. R. Macias, J. H. K. Liu, N. Grande-Gutierrez, and A. R. Hargens*

### 8 Excessive Iron and Weightlessness Effects on the Femurs and Livers of Rats

*A. Wang, J. Zang, J. Wang, G. Nie, G. Zhao, and B. Chen*

### 15 Physiological Effects of Positive Pressure Breathing with Pure Oxygen and a Low Oxygen Gas Mixture

*X. Liu, H. Xiao, W. Shi, D. Wen, L. Yu, and J. Chen*

### 21 Dodecafluoropentane (DDFPe) and Decompression Sickness-Related Mortality in Rats

*R. L. Sheppard, D. P. Regis, and R. T. Mahon*

### 27 Repeated Apneas and Hypercapnic Ventilatory Response Before and After Apnea Training

*D. I. Bourdas, T. S. Tsakiris, K. I. Pavlakis, D. V. Triantafillou, and N. D. Geladas*

### 34 Prolonged Restricted Sitting Effects in UH-60 Helicopters

*K. E. Games, J. M. Lakin, J. C. Quindry, W. H. Weimar, and J. M. Sefton*

### 41 End Tidal CO<sub>2</sub> in Recreational Rebreather Divers on Surfacing After Decompression Dives

*S. J. Mitchell, P. Mesley, and J. A. Hannam*

## REVIEW ARTICLE

### 46 Night Vision Goggle-Induced Neck Pain in Military Helicopter Aircrew: A Literature Review

*M. F. Harrison, B. Coffey, W. J. Albert, and S. L. Fischer*

## SHORT COMMUNICATION

### 56 Quantification of Color Vision Using a Tablet Display

*A. Chacon, J. Rabin, D. Yu, S. Johnston, and T. Bradshaw*

## CASE REPORT

### 59 Pneumocephalus and Neurosurgery in Rotary Aircrew

*B. Ruddick and J. Tomlin*

## FEATURES

### 62 Reviews

### 64 Science & Technology Watch: Bringing Evidence to the Practice of Human Performance—*V. E. Martindale*

### 67 You're the Flight Surgeon—*D. E. Andrus*

### 69 You're the Flight Surgeon—*N. Govil*

### 73 Focus on Aerospace Medicine History: Firsts in Space and Space Medicine—*M. Campbell*

### 74 This Month in Aerospace Medicine History—*W. W. Dalitsch III*