

## AEROSPACE MEDICINE

### BOOKS

- Davis, J.R., et al.: Fundamentals of Aerospace Medicine, 4th Ed., Lippincott Williams & Wilkins, 2008.
- Gradwell, D.P, Rainford, D.J.: Ernsting's Aviation and Space Medicine, 5th Ed., CRC Press, Boca Raton, FL, 2016.
- Barratt, M.R., et al.: Principles of Clinical Medicine for Space Flight, 1<sup>st</sup> ed, Springer, 2008.
- Rayman, R.B., et al.: Rayman's Clinical Aviation Medicine, 5th Ed., Castle Connolly Graduate Medical Publishing, New York, 2013.

### WEBSITES

- Aerospace Medical Association Medical Guidelines for Airline Travel  
<https://www.asma.org/publications/medical-publications-for-airline-travel/medical-considerations-for-airline-travel>
- ASAMS Aerospace Medicine Practice Guidelines  
<http://www.asams.org/guidelines.htm>
- Guide for Aviation Medical Examiners  
[http://www.faa.gov/about/office\\_org/headquarters\\_offices/avs/offices/aam/ame/guide/media/guide.pdf](http://www.faa.gov/about/office_org/headquarters_offices/avs/offices/aam/ame/guide/media/guide.pdf)

PERIODICALS (PREVIOUS FIVE YEARS) INCLUDING:  
Aviation, Space and Environmental Medicine

## PERCENTAGE DISTRIBUTION OF TEST ITEMS

- I. The Flight Environment (40%)
- II. Clinical Aerospace Medicine (30%)
- III. Operational Aerospace Medicine (20%)
- IV. Management and Administration (10%)

## SPECIALTY OUTLINE

### I. THE FLIGHT ENVIRONMENT

- A. The Biosphere
- B. Theory of flight
  1. Aviation - fixed and rotary wing
  2. Spaceflight
- C. Physiology
  1. Respiratory
  2. Cardiovascular
  3. Spatial orientation
  4. Bioacoustics
  5. Visual
- D. Gravitational effects
  1. High performance
  2. Microgravity
- E. Pressure effects
  1. Hypobaric
  2. Hyperbaric
- F. Other physical effects
  1. Shock and vibration
  2. Thermal
  3. Radiation
  4. Toxicology

- G. Human factors
  1. Human-machine interface
  2. Human performance
- H. Aerospace systems
  1. Vehicles
  2. Ground support
  3. Simulators
  4. Remotely Piloted Vehicles
  5. Escape mechanisms
  6. Medical systems

### II. CLINICAL AEROSPACE MEDICINE

- A. Fitness for duty and return to work
  1. Cardiology
  2. Pulmonary
  3. Ophthalmology
  4. Otolaryngology
  5. Psychology and psychiatry
  6. Neurology
  7. Other medical and surgical conditions
- B. Health maintenance
  1. Wellness
  2. Self-imposed stress

### III. OPERATIONAL AEROSPACE MEDICINE

- A. Air and space operations
  1. Military
  2. Civil aviation
  3. Space
- B. Selection and retention
  1. Medical standards
  2. Aeromedical evaluations
  3. Longitudinal surveillance
- C. Aeromedical transportation
- D. Survival, search and rescue
  1. Crash worthiness
  2. Search and rescue systems
  3. Airport disaster management
- E. Mishap investigation
  1. Site activities
  2. Forensic considerations
  3. Accident rate and data
- F. Travel medicine

### IV. MANAGEMENT AND ADMINISTRATION

- A. Regulations
  1. Military
  2. Civil
  3. International
- B. Organizations
  1. ICAO
  2. WHO
  3. DOT/FAA
  4. NASA
  5. NTSB