

HUMAN SPACE ENDEAVOURS SYMPOSIUM (B3)
Astronauts: Those Who Make It Happen (5)

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REFINING FLIGHT SURGEON TRAINING AND CERTIFICATION FOR OPTIMAL ASTRONAUT
CARE IN LONG DURATION MISSIONS

Abstract

A flight surgeon has been the primary health care provider to astronauts every step of the way since the beginning of human space flight, regardless of national affiliation, vehicle or space agency. The era of human space flight is still relatively young and the knowledge base about how being exposed to the harsh environment of space affects humans is dynamically evolving. As such, the flight surgeon is constantly required to stay updated with respect to the latest information learned from space flight as well as advances in terrestrial health care. It is impossible for one physician to stay current in all information or clinical skills. However, this is a vital piece that must be maintained for a flight surgeon to provide optimal care to astronauts exploring space. Requirements for training and certifying flight surgeons are thus also dynamic and evolving, particularly with respect to the health-critical events such as launch, flight and landing operations. Often a flight surgeon will be selected based on his/her clinical skills and experience in dealing with health issues similar to what can be encountered with space flight (e.g. military aviation, emergency medicine, or wilderness medicine). However, the irony of the job position is that it doesn't afford the flight surgeon many opportunities to maintain clinical skills. Thus, many components of continuing education for a flight surgeon include elements such as Advanced Cardiac Life Support, Advanced Trauma Life Support or their equivalent counterparts. Ensuring that the flight surgeon remains knowledgeable and skilled in the most current medical health care modalities increases the likelihood that the astronaut will receive the optimal care in case of a medical need. It is important to draw upon all medical experience gained across space agencies from human space flight missions to assist in designing risk mitigation and health care capabilities for future human missions. This process will likely provide large cost savings as well as decrease the chance that a health issue will impact mission success.