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ASTRONAUTICAL HYGIENE: A COMMUNAL DISCIPLINE TO SPACE MEDICINE AND A PREVENTIVE MEASURE TO SPACE DISEASES

Abstract

Keeping the astronauts healthy and safe when working in space is of paramount as the space mission itself. Taking along medicine that may be needed in the space trip is quite important as there is no access to immediate supplies. Space medicine has unique challenges, as space environment is characterized by microgravity and radiation. It supports human survival, function and performance in space, a challenging and potentially lethal environment. It is important to look out for the physiology and psychology of astronauts as these are important for mission success. The effects of microgravity on astronauts in relation to medicine is another large field of study. Astronautical hygiene and space medicine are the duet that ensure the health of astronauts in space travel. This paper will focus on the former, which will become increasingly important in the context of long duration spaceflight and as prior preventive measure for space diseases. As it is the application of science and technology for prevention of hazards or exposure to hazards and it also evaluates and mitigates hazards and health risks to those working in low-gravity environments. This paper reviews astronautical hygiene in relation to the use and maintenance of life support systems; risks of extravehicular activities and exposure to chemicals, radiation and microgravity. It will also include the characterization of hazards such as microbial, dust and anatomical hazards due to environment; human factor issues and the development of risk management strategies. These all form prior and preventive means to prevent illnesses and diseases on space missions.