

Return to the Moon (02)  
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BIORHYTHMOLOGICAL ASPECT OF MANNED MOON MISSIONS

**Abstract**

One of the major problems of aerospace medicine is development of ways of increase and preservation of adaptable opportunities of an organism in conditions of space flight, and also early revealing and correction of possible functional infringements. In conditions of space flight of desynchronization attributes of development is revealed. Changes of biological rhythms are early attributes of influence of adverse factors on the person. Practically all pathological processes are accompanied by infringement of biological rhythms of physiological functions. Therefore studying of biological rhythms opens not only an opportunity of prenosological diagnostics, but also opens ways to the rational organization of work, rest and treatment. In orbital flight of communication with terrestrial exogenic oscillators of circadian biorhythms is upset. Therefore one of the main external oscillators becomes time of one orbit (about 1.5 hours). We observed similar changes at cosmonauts in conditions of long flights at long registration of parameters galvanic skin response (GSR). It is probable, that in conditions of stay of the person on the Moon the hypogravitation and "lunar" day will be the main oscillators. It will lead to reorganization of circadian rhythms of astronauts in view of new conditions. As a result of it - decreases the level of psycho-physiological status of cosmonauts, increases the probability of mistakes, decreases working capacity, etc. As a result of long-term researches we have developed a way of an estimation of a level of health and opportunities of adaptation to various influences by parameters of high-frequency biorhythms of some integrative parameters. We research not medicamentous methods for correction of infringements (with use of temperature factors, hypoxia, etc.). In result of our research also has been established the opportunity of effective use of chronobiotics. Use of methods of prenosological diagnostics and correction on the basis of high-frequency biorhythms will allow rising considerably of work capacity of cosmonauts and efficiency of preventive actions.