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SLEEP IN SPACE VERSUS SLEEP ON EARTH.

Abstract

Humans have been sent to space since about 50 years for short and long duration missions. Many countries over the world have had astronauts who have stayed in the space environment for days and nights. Almost all studies on their sleep show unambiguously and systematically that the sleep duration is shorter than the sleep duration on Earth. An obvious conclusion, drawn in many studies, is that the astronauts are sleep deprived which can be of utmost importance for the completion of their tasks on board and also to be able to assume return to Earth. Furthermore planning of long duration mission to Mars cannot be pursued if the sleep question is not resolved. It is proposed that the absence of gravity and the reduced effort to maintain the body upright and to maintain the tone of the antigravity muscles is a possible explanation for a sleep duration shorter than on ground.