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NISC WA: Underwater and Stress Physiology

ITEM NO. 1712

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TITLE: CLINICAL ASPECTS OF IRRADIATIONS IN THE SHF-RANGE

SOURCE: Klinicheskiye aspekty oblucheniy SVCh-diapazona, Izd-vo "Meditsina", Leningradskoye otdeleniye, 1971, 174 p.

ABSTRACT: The overall characteristics of a SHF-field are presented, and its application to the economy and its principles of measurement are given. Data are presented on the biological effects of the SHF-field of large or small intensity, in particular, its effects on the nervous, C-V, and circulatory systems, on metabolisms, and also on certain animal and human organs. In this case, questions are discussed concerning the mechanism of action. It is shown that in certain people, who have worked for a long time with SHF-generators, under certain conditions there can arise disruptions of the functions of the organism, which do not have any specific features. The clinical manifestations, which arise after prolonged repeated irradiations, from the point of view of the nervous system and visceral functions in the case of known schematization are divided into three forms in relation to the leading syndrome: asthenic, vegetative-vascular, and diencephalic. The severity of disruptions can vary: i.e., light, average, and severe. The latter occurs extremely rarely and is not always completely reversible. Data are also presented on the allowable permissible levels of irradiation. Problems of medical expert testimony and protection from SHF-radiation are also examined. It is shown that in the work areas where SHF-generators are present, measures can be taken to prevent and protect workers from SHF-radiation. Therefore, the probability of radiation in intensities which exceed the allowable permissible limits can be almost entirely excluded.

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