

The main goal of this thesis is to describe changes in representation of various subpopulations dendritic cells (myelogenic and plasmocytoigenic) in peripheral blood after intense physical stress and to review their activation status. Early count changes and changes of function of basic elements of cellular immunity after a sport load was described, whereas a behaviour of circulating dendritic cells hasn't been studied yet. The amount and the stage of differentiation of dendritic cells was specified by analysis of blood samples taken before and after the load. According to the result of the tesis the reaction to extreme physical load had two effects. The amount of dendritic cells was increased, whilst the expression of kostimulative molecules (their activation) was decreased. Described changes support an opinion, that physical load initates reaction to a danger of body damage.