

FATIGUE DEVELOPMENT MECHANISMS DURING INCREASED INTENSITY EXERTION

Abstract. During motor preparation, the attention is paid more and more frequently to the complex significance of fatigue in the case of the achieved sport outcome. The complexity of this process has not been utterly explained so far. It is important to acquire the profound knowledge about the central and peripheral fatigue while explaining this mechanism, because they remain in the background of the human body malfunction. It needs to be emphasized that both fatigue mechanisms should not be analyzed separately, because they are subordinated to one another. The changes mechanism in central nervous system (CNS) influenced by physical exertion leads to reticular formation impairment. This in turn results in analytic and decision making process malfunction. The proper functioning of these centers depends on appropriate neurotransmitters concentration. The short tryptophan to serotonin metabolic pathway plays a significant role in the central fatigue development. The concentration increase of this hormone leads to CNS malfunction, which causes the above mentioned changes. The purpose of this paper was to show, based on the current literature data, the predisposing mechanisms and factors in the development of fatigue.