

Smoking and exercise

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Abstract

Cigarette smoke represents a mixture of 4000 toxic substances including hydrocarbons, organic compounds, solvents, gases, toxic metallic ions (Pb, Cd). We can add another 600 additives which are used in the technological process. There is almost no organ in the human body which is not affected, more or less, by smoking. Regarding the influence of smoking on the aerobic capacity and on the physical performances, an important role has the carbon monoxide and, especially the nicotine. The effects of nicotine appear at the level of the nervous, cardiovascular, respiratory systems, in metabolism and thermoregulation processes. Action mechanism of smoking on aerobic capacity relies on the effects of nicotine and the activation of the sympathoadrenal system, which disturb the oxidants/antioxidants balance and the oxidative stress production. The exercise favorably influences the desire to smoke, the symptoms and the human behavior in the case of smoking abstinence. The exercise is a method to reduce the unfavorable effects of smoking on health.

Keywords: smoke, nicotine, aerobic capacity, oxidative stress, oxidants, antioxidants, abstinent.