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THE EFFECT OF AMBIENT TEMPERATURE ON THE HUMAN BLOOD CELLS

Introduction

Today on our planet almost no place where people don’t live. Humanity has spread over the entire surface of the Earth and able to adapt to a variety of climate-geographical conditions with using active means of protection from harmful influences and to create an artificial environment. However, completely eliminate the influence of climate on the human organism is impossible. In countries with a hot climate lives much of the population of the Earth, and constant influence of environmental factors has a certain effect on the inhabitants of these regions of the world.

During the functioning the body of humans and animals are constantly faced with various stressors. Currently, stress is attracts attention of researchers of various branches of biology, medicine and veterinary. This is due mainly to the fact that stress on the one hand, determines the maintenance of homeostasis of the organism, on the other – it leads to the development of adaptation and finally the cause of diseases [1].

Studies of the effect of various stress factors in experimental and natural conditions are devoted to the study of the state of the natural and specific immunity. The research results indicate the effect of stress on the immune system and that changes in the activity of the immune system under stress. Heat acclimation or acclimatization plays a large part in the body’s physical responses and overall ability to cope with heat exposure. Heat acclimation is a broad term that can be loosely defined as a complex series of changes or adaptations that occur in response to heat stress in a controlled environment over the course of 7 to 14 days. These adaptations are beneficial to exercise in the heat and allow the body to better cope with heat stress. Heat acclimatization describes the same process, but happens in a natural environment.

Other changes include decreased salt losses in sweat and urine as well as an improved blood pressure response.

It is also important to note that factors affecting these changes determine the extent to which adaptations occur. For example, acclimation in hot and dry environments has been shown to be different from that in hot and humid environments (a greater sweat rate increase has been seen in the latter case)
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