



### **Sports will help to cope with gastritis and bronchitis**

Physical activity can have an anti-inflammatory effect, according to scientists of the Department of Sports and Wellness Tourism, Sports Physiology and Medicine of Tomsk State University. The researchers made this assumption by studying myokines (myokine) — proteins that the body produces during physical exertion.

TSU press release notes that the basis of many diseases such as gastritis, bronchitis, asthma and even diabetes mellitus is inflammation. As a rule, inflammatory processes are treated with medications, however, according to Russian experts, an anti-inflammatory effect can be achieved with the help of ordinary sports.

Thus, physical activity can become a way to treat certain diseases (note that earlier scientists found out that moderate exercise slows down even the development of cancer). It is known that myokines can positively affect the human body: metabolism, immunity, brain function. However, it is still unclear exactly how physical activity provokes the production of myokines. What happens in the muscles when they contract?

"Until recently, it was believed that only calcium ions have an effect on muscles, but scientist Sergey Orlov managed to prove that sodium and potassium ions also play an important role in the regulation of smooth muscles. We plan to get similar results for skeletal muscles," - says the head of the Department Leonid Kapilevich.

According to him, these data will help explain how the synthesis of myokines is "triggered" during exercise. After that, it will become clear how to use physical exercises to "force" myokines to affect the immune system and strengthen it.

This will allow a new approach to the treatment of a number of so-called socially significant diseases.

We should add that TSU scientists are working together with colleagues from Moscow State University named after Lomonosov and the University of Montreal (Canada). The research aimed at testing the scientists' hypothesis was supported by a grant from the Russian Science Foundation. **18 million rubles will be spent to get positive results over three years of research.**