

Scientists of the Siberian Federal University: "Chronic stress affects the eyesight"

Scientists at Siberian Federal University have found a connection between stress and eyesight worsening. The study showed that participants of the experiment with the diagnosis of "professional burnout" had reduced contrast sensitivity. The portal [Nauka-TASS](#) first posted the information about the study.



Elena Fedorenko, Associate Professor of the Department of Developmental Psychology and Counseling at the School of Pedagogy, Psychology and Sociology of Siberian Federal University, spoke about the results of scientific work.



"We have found that people experiencing chronic stress have significant impact on ability to qualitatively process visual information. This study allows us to answer questions about the nature of the effects of chronic stress on the human body more accurately, in particular, on the features of perception and processing of visual information, and also provides an opportunity to reflect on how to diagnose symptoms of emotional burnout in an organization to adopt any operational measures to help workers feel better." — Fedorenko explained.

The School of Pedagogy, Psychology and Sociology of Siberian Federal University together with a colleague from the I.P. Pavlov Institute of Physiology RAS studied the effect of chronic stress on the functioning of the parvocellular and magnocellular pathways (brain systems responsible for the perception of visual information and reaction to external stimuli) in the human body. The experiment involved more than 40 people — employees and students of Siberian Federal University.

In addition to the test of the level of professional burnout according to the method of psychologist Viktor Boyko, the subjects were tested for contrast sensitivity — the ability of the eye to detect differences in the brightness level of two side by side objects. The higher the contrast sensitivity, the clearer the eye captures the slightest difference. It turned out that those participants of the experiment who were diagnosed with "professional burnout" had a decrease in contrast sensitivity in comparison with people from the other two groups — with early symptoms or none.

The data obtained will allow scientists to advance in studying the effects of chronic stress on the human body and to develop better ways to diagnose professional burnout. The results of scientific work were published in the International Journal of Psychophysiology.

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