

Being fit protects against health risks caused by stress at work

November 1 2016



It pays to stay physically active, especially during periods of high stress. Credit: Universität Basel

It is a well-known fact that fitness and well-being go hand in hand. But being in good shape also protects against the health problems that arise

when we feel particularly stressed at work. As reported by sports scientists from the University of Basel and colleagues from Sweden, it therefore pays to stay physically active, especially during periods of high stress.

Psychosocial stress is one of the key factors leading to illness-related absences from work. This type of stress is accompanied by impaired mental well-being and an increase in depressive symptoms. It also raises the likelihood of [cardiovascular risk factors](#) such as [high blood pressure](#) and an unfavorable blood lipid profile. Conversely, a high fitness level is associated with fewer depressive symptoms and fewer cardiovascular risk factors.

Fitness, risk factors, and self-perceived stress

The data from the study published in the U.S. journal *Medicine and Science in Sports and Exercise* shows that a high fitness level offers particularly effective protection for professionals who experience a high degree of stress in the workplace. To obtain this data, the researchers recorded the fitness levels of almost 200 Swedish employees – 51% men, mean age 39 years – using a so-called bicycle ergometer test. In addition, they measured various known cardiovascular risk factors such as blood pressure, body mass index, cholesterol, triglycerides and glycated hemoglobin. The participants were then asked to provide information on their current perception of stress.

As expected, the study conducted by the Department of Sport, Exercise and Health at the University of Basel, the Institute of Stress Medicine, and Sahlgrenska University Hospital in Gothenburg illustrates that stressed individuals exhibit higher values of most cardiovascular risk factors. Furthermore, it was confirmed that cardiovascular fitness is linked to virtually all risk factors, with the risk factors being less high in people who are physically fit.

Clinical cut-offs exceeded in unfit individuals

The researchers demonstrated for the first time that the relationship between the subjective perception of stress and cardiovascular risk factors is moderated, so to speak, by fitness. In other words, among the stressed employees, there were particularly large differences between individuals with a high, medium, and low fitness level.

For example, when stress levels were high, the LDL cholesterol values exceeded the clinically relevant limit in employees with a low fitness level – but not in those with a high fitness level. By contrast, where the exposure to stress was low, far smaller differences were observed between fitness levels.

Promotion of an active lifestyle

"Above all, these findings are significant because it is precisely when people are stressed that they tend to engage in physical activity less often," says Professor Markus Gerber of the University of Basel. Furthermore, he says that the study has direct implications for the therapy and treatment of stress-related disorders. To promote a physically active lifestyle, a high priority should be attached to the systematic measurement of cardiorespiratory fitness and the provision of theoretically sound and evidence-based physical activity counseling.

More information: MARKUS GERBER et al. Fitness Moderates the Relationship between Stress and Cardiovascular Risk Factors, *Medicine & Science in Sports & Exercise* (2016). [DOI: 10.1249/MSS.0000000000001005](https://doi.org/10.1249/MSS.0000000000001005)

Provided by University of Basel

Citation: Being fit protects against health risks caused by stress at work (2016, November 1)
retrieved 17 April 2024 from <https://medicalxpress.com/news/2016-11-health-stress.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.