PRESS RELASE
2024-05-21

HIGH FITNESS LINKED TO REDUCED RISK OF DEPRESSION AND SICK LEAVE IN CERTAIN GROUPS

A new study from The Swedish School of Sport and Health Sciences, GIH, shows that people with high fitness have a lower risk of becoming depressed or on sick leave due to depression. The association was most evident in men, younger people, and those with a shorter education.

– The results of this study show that good fitness appears to be beneficial for a lower risk of suffering from depression or sick leave due to depression. However, this positive effect seems to be strongest in certain groups, especially in men and individuals with lower education, says Camilla Wiklund, researcher at GIH and the study's first author.

The study is based on data from the working Swedish population who completed a fitness test on a bicycle in connection with a health profile assessment sometime between 1982 and 2020. The data comes from the health company HPI, Health Profile Institute. A total of 330,247 individuals aged 16–79 was included, of which 46 percent were women and who did not have a depression diagnosis at the start of the study. The three outcomes in the study were depression, sick leave due to depression, and sickness benefits due to depression. The participants were followed for an average of 10 to 11 years, depending on the outcome studied. The study also examined how gender, age, education, and occupation affected the relationships.

The results showed an association between higher fitness and a lower risk of suffering from depression and sick leave due to depression, the higher the level of fitness, the lower the risk. Individuals with high fitness[1] had a 21 percent lower risk of depression, and those with moderate fitness[2] had a 16 percent lower risk of depression compared to individuals with very low fitness[3]. There was no difference between individuals with low[4] and very low fitness. Participants with high fitness also had an 11 percent lower risk of sick leave due to depression than those with very low fitness. The results persisted after adjusting for other factors such as lifestyle, comorbidities, age, and gender.

High fitness was also partially related to a reduced risk of sickness benefit due to depression. These associations persisted after adjustment for age and sex but not for lifestyle-related factors and comorbidities.

– What is unique about our study is that we have been able to examine various aspects of depression, both the number of new cases of depression and sick leave and sickness benefits because of depression. In addition, we have examined the relationships in different population groups. The connections between higher fitness and the three outcomes were mainly clear in men, younger individuals, and individuals with low education, says Elin Ekblom Bak, Professor at GIH and project manager for the study.

---

[1] High fitness (≥46 ml/min/kg)

[2] Moderate fitness (32 to <46 ml/min/kg)

[3] Very low fitness (<25 ml/min/kg)

[4] Low fitness (25 to <32 ml/min/kg)

– It is essential to point out that this is an observational study, and therefore, we cannot fully determine cause and effect between these factors, says Camilla Wiklund. In addition, there are more factors that we have not been able to study, such as genetics, which may play a significant role in the associations.
The study is published in the scientific journal Preventive Medicine (link to https://www.sciencedirect.com/science/article/pii/S0091743524000719?via%3Dihub)

The study was conducted in collaboration with the HPI Health Profile Institute, AbbVie, BioArctic, and Monark Exercise.
The project is part of the E-PABS research center for physical activity and brain health at GIH. (länk till https://www.gih.se/brainhealth)

For more information, please contact:
Camilla Wiklund, postdoctoral researcher GIH, phone: +46 8-120 53 897,
e-mail: camilla.wiklund@gih.se
Elin Ekblom Bak, Professor GIH and project manager for the study,
phone: +46 8-120 53 861, e-mail: elin.ekblombak@gih.se

The Swedish School of Sport and Health Sciences, GIH is Sweden's foremost knowledge centre for sports, performance development, physical activity and health. We conduct research of high quality and societal relevance within the subject of sports science with a focus on humans in motion. We train teachers in the school subject of physical education, as well as coaches, health promotors, sports managers, sports scientists and researchers. At GIH, 160 employees and 1,400 students work and study. The university is centrally located in Stockholm, close to Stockholm Stadium and a large sports and outdoor area.