Regular physical activity protects against depression after myocardial infarction

Depression is common and estimates suggest that in a family of four, one of the family members will likely suffer from mental health problems. Depression is even 3 times more common in patients after a heart attack than in the general population. Depression after a heart attack is bad not only because of the accompanying emotional distress, it also increases the risk of having another heart attack or premature death.

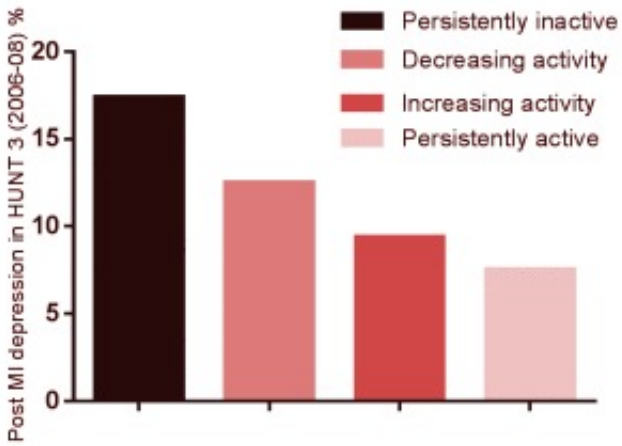

Fig. 1. Distribution (%) of post MI depression at HUNT3 (2006-08) by physical patterns from HUNT1 (1984-86) to HUNT2 (1995-97)

Research support that exercise training reduces mortality in patients with blocked heart arteries, and some of the effect seems to be related to the alleviation of depression. But less is known if long-term exposure of being physical active prior to the experience of first heart attack affects the risk of being depressed.

In this study, using data from the Nord-Trøndelag Health Study in Norway, we studied whether pattern of leisure time physical activity among 189 patients ten years prior to being hospitalized with a heart attack was associated with level of depressive symptoms after the initial heart attack.

We found a graded relationship between physical activity pattern and prevalence of depressive symptoms after the participants have experienced their first heart attack.

In addition our analyses showed that those performing regular physical activity over 10 years prior to their first heart attack had almost 20% less odds of being depressed compared to their counterparts being stable inactive in the same period. The data also revealed that those who

changed from being inactive to become physical active prior to their first heart attack had a better protection against depression compared to those changed from being physical active to inactive.

These finding are interesting and add support for a possible causal relationship between physical activity and the development of depression in patients with established coronary heart disease. At present we do not know the mechanisms linking physical activity to the development of depression. And we do not know if depression after coronary heart is related to the pathophysiology of heart disease, or if it is the patterns of physical activity itself that is the driving force behind our findings.

Given the emotional distress and reduced quality of life among those suffering from depression our findings point to the need for paying attention to the habits of physical activity in patients hospitalized with first heart attack. Those who have been physical inactive several years prior to their initial heart attack, or for those who have decreased their physical activity level, may particularly benefit form exercise training programs or other ways to increase physical activity and long-term follow up to prevent or treat depression.

Publication

Protective Effect of Regular Physical Activity on Depression After Myocardial Infarction: The HUNT Study.
Ernstsen L, Rangul V, Nauman J, Nes BM, Dalen H, Krokstad S, Lavie CJ, Blair SN, Wisløff U
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