

Physically active individuals cope better with heart attacks

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Exercise habits affect how the body handles a heart attack in its aftermath. It's never too late to start exercising. Credit: Thinkstock

Researchers know that exercise increases a person's chances of surviving a heart attack. Now it turns out that exercise habits also affect how the body handles a heart attack's aftermaths.

Depression is three times more common among people who have experienced a heart attack compared to people who have never been

afflicted by one. But the new study shows that people who exercise regularly for a long time before a heart attack occurs are far less likely to be depressed afterwards.

"Physical activity protects people from depression after a heart attack," says Associate Professor Linda Ernstsén. She is the lead author of an article on the results of her research, which stem from her postdoctoral work at the Norwegian University of Science and Technology's (NTNU) Department of Nursing Science.

The connection between health and lifestyle

As their starting point, the researchers used the Nord-Trøndelag HUNT studies that collected data from a total of 120,000 people during three periods (1984-86, 1995-97 and 2006-08).

The surveys have given researchers large volumes of data to work with, which gives them the advantage of seeing how the health of a large group of people has changed over time. These data can then be linked to lifestyle and [exercise habits](#), among other things. The ability to connect this data to data from health registries like the Norwegian Myocardial Infarction Registry also makes the results more reliable.

Researchers studied middle-aged and older individuals who had participated in all three of the HUNT studies, and who experienced their first heart attack after participation in the second HUNT study (1984-86) and before they participated in the third study (2006-08).

In this way, the researchers were able to see how exercise habits over several years affected how people felt after a heart attack.

The researchers relied on the Norwegian [physical activity](#) guidelines as the measure of whether people trained or not. The study group that was

characterized as physically active exercised a minimum of 150 minutes per week with moderate intensity or 75 minutes with high intensity, which is in accordance with the Norwegian guidelines.

The worst is never having exercised

The study's sample group of 189 individuals is admittedly small, and researchers are being careful not to overstate any claims. But the trend still seems quite clear.

On average, 11 per cent of all participants were depressed by the third HUNT study, but this varied greatly depending on previous training habits. Researchers divided the survey participants into four groups:

Among people who had never exercised, over 17 per cent were depressed after a heart attack. This was by far the most depressed group.

Among those who exercised during the first study period, but who had stopped in the second, 12.5 per cent were depressed after a heart attack.

Participants who didn't exercise to begin with, but who did train during the second study period, fared better, with only 9.1 per cent suffering from depression in the aftermath of the heart attack.

Participants who exercised consistently throughout fared best, with only 7.5 per cent suffering from depression.

Never too late to start exercising

The researchers found that people who exercised regularly over several years were less than half as likely to become depressed after a [heart attack](#) than those who never exercised

The survey also provides reason for optimism. It helps if you have exercised and are in good shape from training earlier in life, even if you have since stopped. But it is apparently even better to have started exercising regularly in older age, even if you get off the couch late in life.

"It's never too late to start exercising," Ernstsens says.

Many researchers involved

A large group of scientists are behind this study. Lead author Ernstsens has collaborated with American scientists, researchers from the HUNT studies and from NTNU's K.G. Jebsen Centre for Exercise in Medicine(CERG).

The unique feature of the study is that it provides evidence that our habits over many decades have consequences when serious illness occurs. The study cannot say anything about the causes of depression. But the findings indicate that physical activity over time is associated with the occurrence of depression. So it would appear that the new research gives us one more reason to exercise.

The study results were published in the January 2016 issue of *The American Journal of Medicine*, and are also available online.

More information: Linda Ernstsens et al. Protective Effect of Regular Physical Activity on Depression After Myocardial Infarction: The HUNT Study, *The American Journal of Medicine* (2016). [DOI: 10.1016/j.amjmed.2015.08.012](https://doi.org/10.1016/j.amjmed.2015.08.012)

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