

# Exercise and stop smoking to improve depression after heart attack

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"Depression is almost three times more common in people who have had a heart attack than in those who haven't," said Dr Manuela Abreu, a psychiatrist at the University of Lisbon, Portugal. "Cardiac rehabilitation with aerobic exercise can reduce depressive symptoms and improve cardiovascular fitness."

"Patients who are depressed after a [heart attack](#) have a two-fold risk of having another heart attack or dying compared to those who are not depressed," added Dr David Nanchen, head of the Prevention Centre, Department of Ambulatory Care and Community Medicine, University of Lausanne, Switzerland.

Dr Nanchen's research shows that exercise and stopping smoking may improve depression after heart attack. He studied 1,164 patients who were part of the Swiss Acute Coronary Syndromes (ACS) cohort, a large prospective multicentre study of patients with ACS in Switzerland. Patients were enrolled between 2009 and 2013 and followed up for one year. Depression was assessed at enrolment and at one year.

The researchers investigated the impact of a number of factors on improvement of depression after heart attack. These included blood cholesterol management, [blood pressure control](#), smoking cessation for smokers, reduction of alcohol for those consuming more than 14 drinks per week, intensification of physical activity, and guideline recommended medications.

The study found that at one year, 27% of heart attack patients had persistent or new depression and 11% had improved depression. Patients with depression were less frequently married, had more diabetes, and were more frequently smokers than those without depression.

At one year, smoking cessation had the strongest association with improvement of depression with a

2.3 greater chance of improving depression in quitters compared to those who continued smoking. Depressed patients who had higher physical activity at the beginning of the study were also more prone to improve their depression.

"Heart attack patients who smoke and are depressed are much more likely to improve their depression if they kick the habit," said Dr Nanchen. "While our observational study was unable to find an impact of exercise after heart attack on depressive symptoms, we did show that patients who were already physically active were more able to improve their depression. We believe that the benefits of exercise after heart attack would be shown in a randomised trial, but such a study is difficult to perform for ethical reasons."

"More than one-quarter of patients in our study reported symptoms of depression after their heart attack, which shows this is a big issue," said Dr Nanchen. "Some had chronic depression which started before their heart attack while others became depressed as an acute reaction to the hospitalisation and the event."

Depressive symptoms in cardiac patients often differ from those of psychiatric patients. "Frequently they don't say they feel sad or hopeless but instead complain of insomnia, fatigue or body pain," said Dr Abreu. "The different clinical presentation contributes to the underdiagnosis of depression in cardiac patients."

She added: "Depression after a heart attack can lead to poor adherence to treatment, skipping medical appointments, smoking, sedentary lifestyle, unhealthy diet, social isolation, and poor self esteem."

The behavioural changes associated with [depression](#) may be partly responsible for the worse outcomes in heart attack patients who are depressed. Biological mechanisms, including

changes to the autonomic nervous system and inflammatory factors, and decreased heart rate variability, may also play a role.

Dr Nanchen advised heart attack patients to discuss smoking cessation with their doctor and to be physically active. "You should do moderate to vigorous aerobic exercise for 30 minutes at least three times a week to be within recommended levels. Make sure you are working hard enough to break out in a sweat," he said. "This level of physical activity is good for your mental and physical health."

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