

For younger women, mental health now may predict heart health later

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Younger women are generally thought to have a low risk of heart disease, but new research urges clinicians to revisit that assumption, especially for women who suffer from certain mental health conditions. A new study being presented at the [American College of Cardiology's Annual Scientific Session](#) found that having anxiety or depression could accelerate the development of cardiovascular risk factors among young and middle-aged women.

The study draws new attention to the importance of cardiovascular screening and preventive care as rates of cardiovascular risk factors rise and heart attacks become more common in younger people. Anxiety and depression have also become more prevalent in recent years, especially since the COVID-19 pandemic.

The researchers reported that younger women with anxiety or depression were nearly twice as likely to develop [high blood pressure](#), high cholesterol or diabetes over a 10-year period compared with women who did not have these [mental health conditions](#), putting them nearly on par with men of the same age in terms of heart disease risk.

"We often feel that young women are the 'safe group' with regards to cardiovascular disease because the incidence of cardiovascular disease is quite low due to the protective effects of estrogen in this group," said Giovanni Civieri, MD, cardiologist, research fellow at Massachusetts General Hospital and Harvard Medical School, doctoral student at the University of Padua in Italy and the study's lead author.

"But this study suggests that if a younger woman has depression or anxiety, we should start screening for cardiovascular risk factors to reduce the incidence of [cardiovascular disease](#)."

The researchers analyzed health records of 71,214 people participating in the Mass General Brigham Biobank, a research program of the Mass General Brigham health system. People who had heart disease or who were diagnosed with anxiety or depression after the study began were excluded.

During the 10-year follow-up period, 38% of participants developed high blood pressure, high cholesterol and/or diabetes. According to the analysis, those with a history of anxiety or depression before the study period were about 55% more likely to develop one or more of these risk factors than people without anxiety or depression.

This finding was most pronounced among women under the age of 50 with anxiety or depression, who were nearly twice as likely to develop cardiovascular risk factors compared with any other group.

In terms of absolute risk, young women overall showed the lowest rates of cardiovascular [risk factors](#) of any group, which was expected based on findings from previous studies and what is known about the protective effects of estrogen in pre-menopausal women. However, anxiety and depression were associated with a much higher relative risk among young women than was seen in other groups.

"Once a young woman has depression or anxiety, her absolute risk is comparable to a young male," Civieri said. "There is a sort of a catch-up phenomenon where depression and anxiety increase the risk that would otherwise be very low."

To study the potential drivers behind this relationship, the researchers examined the metabolic activity of stress-related brain regions in a subset of participants who had undergone brain scans. The results indicated that [younger women](#) with anxiety or depression showed relatively large increases in stress-related neural activity.

"The question is: Why are anxiety and depression associated with heightened gains in risk among younger females? This is something we are continuing to study," Civieri said.

Although [anxiety](#) and [depression](#) are separate conditions, they were grouped together in the study because they are both associated with increased cardiovascular risk and they share common neurobiological pathways, meaning they are thought to affect health in similar ways.

It is unknown whether mental health treatments, such as antidepressant medications or psychotherapy, could help reduce cardiovascular risk, researchers said. However, once a person has high blood pressure, high cholesterol or diabetes, Civieri said that well-established treatments such as statins and blood pressure-lowering drugs can effectively reduce the risk of serious cardiac events.

More information: Civieri will present the study, "Anxiety and Depression Increase Cardiovascular Disease Risk by Accelerating the Development of Risk Factors: Effects of Age and Sex," on Saturday, April 6, 2024.

Provided by American College of Cardiology

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