

**DIAGNOSTIC ECG SYSTEMS** AMFRICAN MADE

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# TREATING ANXIETY AND DEPRESSION IS LINKED WITH IMPROVED OUTCOMES FOR HEART DISEASE

# What is a Two-Way Street? THE RELATIONSHIP BETWEEN MENTAL AND HEART DISEASE GOES BOTH WAYS



While mental health can impact physical health, sometimes, the treatment of conditions such as anxiety and depression remains neglected



Researchers are interested in learning how the treatment of mental health impacts physical health outcomes



Treatment of anxiety and depression was linked to a reduction in hospital readmissions, emergency room visits, and overall mortality...

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One in five adults described experiencing depression or frequently feeling low. The study indicated that rates may have been even higher during the last year of the study, which coincided with the onset of the COVID-19 pandemic. As reported to the U.S. Centers for Disease Control and Prevention, the percentage of U.S. adults who faced depression or anxiety increased from 36.4% to 41.5% during the first year of the pandemic, with the most significant rise observed among individuals aged 18 to 29.

Research indicates that individuals who reported feeling down for several days

had a stronger association with cardiovascular disease (CVD) and poor heart health. Especially, the participants who had experienced up to 13 days of poor mental health over the past 30 days had 1.5 times greater odds of developing CVD compared to those who reported no poor mental health days. Furthermore, those who experienced 14 or more days of poor mental health had double the odds of CVD. Notably, the relationship between poor mental health and CVD did not significantly differ by gender or whether individuals lived in urban or rural areas.

"The relationship between depression

and heart disease can be a two-way street. Depression can increase the risk of heart issues, and individuals with heart disease often experience depression," says Yaa Adoma Kwapong, M.D., M.P.H., a post doctoral research fellow at Johns Hopkins Ciccarone Center for Prevention of Cardio-vascular Disease and the lead author of the study. "Our research indicates that we need to prioritize mental health among young adults. Also, we should consider increasing screening and monitoring for heart disease in individuals with mental health circumstances and vice versa to improve overall heart health."

**Anxiety** and **depression** are two common mental health conditions. Proper treatment of these conditions is essential to well-being, and there is research that is going about how treatment benefits other health areas, which includes heart health.

A study recently published in the <u>Journal</u> <u>of the American Heart Association</u> examined how treatment of depression and anxiety has impacted heart health outcomes among people who had already experienced severe heart problems.

The findings emphasize the need to address mental health issues to enhance outcomes for individuals with heart conditions.

The study that involved a large sample, over 1,500 participants found out that individuals who received both psychotherapy and medication for depression or anxiety were 75% less likely to be readmitted to the hospital and 74% less likely to revisit the emergency room.

# Depression and anxiety's impact on physical health

Depression can be a very prevalent mental health condition. Individuals with depression can often experience ongoing feelings of hopelessness and a decline in energy levels. They may struggle to carry out their daily activities.

Anxiety can also be a prevalent mental health condition that can lead you have to persistent worry, restlessness and trouble sleeping. Many individuals with anxiety may have a *higher risk* of developing depression.

Poor mental well-being can have a negative influence on physical health. For example, people with depression who also have a chronic illness such as heart disease or diabetes may have worse symptoms from both conditions. People with anxiety can also be at a higher risk for cardiovascular disease.

Cheng-Han Chen, MD, a board-certified interventional cardiologist and medical director of the Structural Heart Program at Memorial Care Saddleback Medical Center in Laguna Hills, CA, who was not involved in the study, explained this to Medical News Today:

"There is a close relationship between mental health and cardiovascular disease, a relationship that has an impact in both directions. People with disorders such as depression and anxiety can experience increased physiological stress and blood pressure and that are risk factors for heart disease."

"Additionally," he noted, "they may be more likely to adopt lifestyle changes, such as smoking and physical inactivity, that can increase their risk of developing cardio-vascular disease. Inversely, patients who suffer from heart disease such as *heart attack*, *stroke*, or *heart failure*, are at greater risk of developing mental health disorders such as anxiety, depression, or *PTSD* [post-traumatic stress disorder], after their stressful acute cardiovascular event."

The exact relationship between mental health and physical conditions is not something that researchers understand entirely.

Researchers of the current study wanted to understand more about the relationship between certain heart problems and anxiety and depression.



<u>Heart disease</u> is a serious health concern that causes more fatalities than any other disease. An Electrocardiogram (ECG) is a non-invasive diagnostic test that measures the electrical activity of the heart and can help detect heart abnormalities, such as heart damage or abnormal heart rhythms. ECG is one of the most reimbursed tests because it does a great job at finding early signs of heart disease. <u>Dr. Nasiff</u> has developed diagnostic tools that are <u>highly regarded</u> in the medical community.

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### How mental health treatment impacts heart health

This was a population-based, retrospective cohort study. Researchers used Ohio Medicaid data in their analysis to include 1,563 participants.

Participants had **coronary** artery disease or heart failure, and they also had anxiety or depression. They had also experienced their first hospital admission related to heart failure or ischemic heart disease.

Researchers looked at treatment for anxiety and depression and how it related to hospital readmission, emergency room visits for heart failure and coronary artery disease, all-cause mortality, and heart disease mortality. They looked at if any participants received psychotherapy and if they were taking antidepressant medication.

They noted and accounted for several covariates, including ethnicity, Medicaid eligibility, and biological sex. They ran various models that adjusted for different covariates.

Analysis found that people who received both psychotherapy and medication for depression or anxiety experienced the most benefits and the most risk reductions.

However, all groups that received some form of treatment saw benefits regarding rehospitalization and emergency room visits. Researchers did not any observe significant reductions in risk for heart disease mortality for those who were treated for anxiety and depression.

## Enhancing ECG Testing



Early detection is one of the most important developments in cardiac medicine. Still, being able to recognize symptoms such as arrhythmias and obtaining an accurate diagnosis from a physician remains just as critical. A correct diagnosis allows for appropriate treatment and preventive measures, reducing the prospect of complications.

The Nasiff's **CardioResting ECG** technology provides physicians and healthcare professionals with easyto-read tracings, and precise features to help identify potential heart risk and disease.

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Those who received both medication and psychotherapy were 75% less likely to be admitted to the hospital again, 74% less likely to have to go to the emergency room, and 66% less likely to experience death from any cause.

The results point to the importance of treating mental illness in people who have heart disease as a way to help improve heart disease outcomes.

Cold and dark winter days getting you down?

Seasonal changes can impact your mood and energy levels. Bezzy Depression is a community with discussion forums and live chats where you can connect with those who understand.



### Which treatments were linked to better heart health?

Philip F. Binkley, MD, a cardiovascular research director and an internal medicine professor at Ohio State's Wexner Medical Center, shared the key findings of the study with MNT.

He stated that patients admitted to the hospital for heart failure or coronary artery disease who also experience anxiety or depression can greatly benefit from mental health treatment consisting psychotherapy, pharmacotherapy, or a mix of both.

WHY CHOOSE NASIFF?

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"Those who receive the combination of psychotherapy and pharmacotherapy have the greatest benefits," he noted. "In all cases, there are very significant reductions in the need to return to the hospital or the emergency room, and the risk of death is decreased."

Majid Basit, MD, an interventional cardiologist with Memorial Hermann in Houston, who was not involved in the study, also commented with his thoughts on the study:

"The study shows the value of recognizing mental health disorders like depression and anxiety in patients with cardiovascular disease. It's especially important in vulnerable populations, such as the elderly, those with advanced heart disease, and those with previous hospitalizations for cardiovascular disease."

### **Further studies needed**

This research has some limitations. First, it only included participants in Ohio and data gathered from their submitted claims so that some data may be missing. The research also cannot identify a causal relationship between the factors that the researchers examined.

Most participants were white, so future research should focus on studying other groups. Researchers did not include adults over 64, so future research should consist of older participants as well.

The study also only lasted for a relatively short timeframe, so more extended studies can also work to confirm these findings.

Researchers may have missed specific confounders and could not account for certain factors, such as the severity of illness. They also could not confirm the mental health diagnoses using standardized assessments.

"This was a retrospective study, and further prospective studies of mental health interventions in patients with heart disease are required. Mechanistic studies further elucidating the physiologic connections between heart disease and mental health challenges will further advance our capacity to prevent and treat both disorders."

# WHY YOU STILL CHOOSE NASIFF

# Nasiff is creating "Peace of Mind" one test at a time

The auto-diagnostic features of the Nasiff CardioCard ECG systems are essential for several reasons:

**Detect Heart Disease:** The system analyzes electrical signal patterns to identify various forms of heart disease, including arrhythmias (irregular heartbeats), cardiomyopathies (diseases of the heart muscle), and valvular heart disease. Early detection enables timely treatment and management, preventing disease progression.

**Identify Heart Attacks:** During a heart attack, the ECG exhibits characteristic changes that indicate damage to the heart muscle. The Nasiff CardioCard system can quickly identify these changes, allowing immediate intervention to minimize damage and improve patient outcomes.



Reveal Heart Blockages: Coronary artery blockages restrict blood flow to the heart and can result in angina (chest pain) and heart attacks. The ECG can show signs of ischemia (reduced blood flow), indicating such blockages. The automated analysis provided by the Nasiff CardioCard assists doctors in quickly identifying these signs.

**Recognize Heart Injury:** Injuries to the heart can disrupt its electrical activity, whether from trauma or other causes. The ECG can detect these disruptions, allowing for prompt diagnosis and treatment.

Overall, these capabilities play a vital role in enhancing patient care and outcomes.

www.medicalnewstoday.com, 3 Apr. 2024, https://www.medicalnewstoday.com/articles/treating-anxiety-depression-linked-to-better-heart-disease-outcomes