



Depression and Heart Disease: The Exercise Link

It's well known that depressed people have more heart issues—to the tune of 50% or higher. But which came first, the depression or the heart disease? According to recent study findings from the Veterans Affairs Medical Center in San Francisco, that answer may not matter. The real bottom line appears to be the lifestyle behaviors that tend to go with the depression.

Published in the November 26 *Journal of the American Medical Association* (JAMA), the study determined why depressive symptoms are associated with risk of cardiovascular events. Depressed symptoms, per the study, predict adverse cardiovascular outcomes in patients with coronary heart disease—yet the mechanisms responsible for the association were unclear.

This “Heart and Soul” study was a prospective cohort of 1,017 outpatients, who had stable coronary heart disease and were followed for a mean of 4.8 years. Participants were “recruited between September 11, 2000, and December 20, 2002, from 12 outpatient clinics in the San Francisco Bay Area and were followed up to January 12, 2008.”

Study participants completed a Patient Health Questionnaire (PHQ) to assess their mood state. Researchers measured cortisol, C-reactive protein (inflammatory marker), omega-3 fatty acids, neurotransmitters involved in depression/heart disease (serotonin, norepinephrine), using blood and urine samples.

Investigators also used “proportional hazards models to evaluate the extent to which the association of depressive symptoms with subsequent cardiovascular events (heart failure, myocardial infarction, stroke, transient ischemic attack, or death) was explained by baseline disease severity and potential biological or behavioral mediators.”

Results revealed & study comments

- Depressive symptoms are linked to a 31% higher rate of cardiovascular events.
- Physiological factors, potential biological mediators, had little impact.
- Exercise key factor: In a sample of outpatients with coronary heart disease, the link between adverse cardiovascular events and depressive symptoms was largely explained by behavioral factors, particularly physical inactivity.
- Lack of exercise ups risk substantially in all patients: Patients who didn't exercise—whether depressed or not—had a 44% higher risk of heart problems.
- Cigarette smoking also increased risk for cardiovascular events.
- Findings raise the hypothesis that the increased risk of cardiovascular events associated with depression could potentially be preventable.
- Researchers suggest doctors should talk to patients being treated for depression about their lifestyle habits, encouraging them to exercise.
- More study is mandated for women/ others with heart disease since this research focused solely on older men with stable coronary heart disease.

In other words, the impact depression has on cardiovascular health may be more a matter of behavioral responses than biochemical pathways.

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Steps To Handling Depression Or Reducing Its Risks

- Depression is a common medical condition—you're not alone. And it is treatable. Start by talking with someone you trust: clergy, physician, friend, family.
- Have a frank discussion with your physician, discussing treatment options, from counseling to prescriptions. You are a partner in the treatment process, so be prepared for your visit, noting what you're feeling, how you're feeling, length of depressed feeling, possible triggers, etc. And be sure to let your doctor know exactly how the treatment is working—or not working.
- Keep communication lines open, even if you don't feel like it. Friends can help you through life passages.
- Stay physically active and consider taking up an enjoyable, new hobby.
- Break overwhelming tasks into smaller ones that can be finished more easily.



Dr. Mary Wooley—the study’s lead author and professor of medicine, epidemiology and biostatistics at the University of California, San Francisco—reportedly said researchers looked at “all sorts of biological markers that could potentially play a role in linking depression and heart disease” but found they didn’t explain the association. “All we needed to do was ask the patient how much they were exercising to be able to explain the link.”

The 2008-2009 President Elect of the American Heart Association, Dr. Clyde Yancey reportedly suggested that unhealthy behaviors—lack of physical activity and smoking—may be manifestations of depression, leading to heart disease. Rather than traditionally looking at certain behaviors in isolation, with respect to their effects on heart disease, those behaviors should now be included while treating a patient’s depression.

Earlier studies. Antidepressants have been shown to reduce heart risk. A June 2003 study demonstrated a 42% decline in risks for dying or second nonfatal heart attack in study participants on antidepressants. Similarly, the Sadheart randomized trial revealed a 20% drop in heart-related death rates among patients on antidepressants. Presumably, these patients felt better and no longer presented depressive symptoms, which led them to exhibit healthier lifestyle behaviors and enjoy the subsequent better health outcomes.

Depression and stress often go hand-in-hand. And that can heighten the association to heart disease since the body responds to stressful situations with a fight-or-flight response. Adrenaline and cortisol ignite the response, causing a faster heartbeat, constricted blood vessels and elevated blood pressure until the “emergency” subsides.

Today’s lifestyles are imbued with chronic stress, which exacerbates the issue with unhealthy behavior responses: overeating, overdrinking, lack of exercise, smoking more than usual and sleep disturbances.

Playing it safe: The Cenegenics proactive approach. Knowing your health risks and having ongoing expert help with lifestyle behaviors are keys to offsetting the depression/ cardiovascular disease link.

At Cenegenics, we use the science behind age management medicine to identify and meet criteria, which places you at the lowest possible risk category for disease, particularly heart disease, stroke, diabetes, metabolic syndrome, cancer and Alzheimer’s disease.

Your Cenegenics medical team—certified age-management physician, nutritionist and exercise physiologist—guides you toward living well longer. It begins with an intensive evaluation process, which goes far beyond your annual checkups. A comprehensive, preliminary blood panel and lifestyle questionnaire coupled with a seven-hour evaluation day of diagnostics and a consultation with your Cenegenics medical team deliver a complete picture of your health strengths and weakest links.

From there, the team works with you to design a full-faceted program tailored to your individual needs and health goals. Your customized program uses well-established protocols that combine four synergistic components of age management medicine for a longer health span and improved quality of life.

Reduce Cardiovascular Disease Risk Modify Contributing Factors

Medical Tip: Know your risk factors by age 20, them make a plan to prevent heart disease.

No Exercise. Regular, moderate physical activity can prevent heart/blood vessel disease and control blood cholesterol, diabetes, obesity and blood pressure. Even 10-15 minutes a day of moderate exercise helps.

Poor Nutrition. The best way to counter cardiovascular disease is with a health-smart diet plan, filled with vegetables, fruit, whole grains, high fiber, lean proteins, no- or low-fat dairy. Healthy nutrition can affect cholesterol, blood pressure, diabetes and weight.

Diabetes. Approximately 65% of diabetics die of some form of heart/blood vessel disease. Work with your physician to control other factors, such as blood sugar levels and weight gain.

High blood cholesterol. The rise of blood cholesterol levels equates to coronary heart disease risk, which can escalate when other risk factors are present, such as high blood pressure and tobacco smoke.

High blood pressure. The heart thickens and becomes stiffer with high blood pressure, upping risks for stroke and heart attack, kidney failure and congestive heart failure. If obesity, smoking, high blood cholesterol levels or diabetes also exists, the potential for heart attack or stroke increases many times.

Obesity/overweight. Excess body fat, particularly around the waist, contributes to heart disease and stroke. Those added pounds force the heart to work harder, driving up blood pressure, cholesterol and triglyceride levels—and setting the stage for diabetes.

Stress. Scientists recognize a link between coronary heart disease and stress/behavioral responses. Upping the risk are unhealthy responses to stress, such as overeating, smoking or drinking more than usual.

Smoking. Tobacco smoke increases risk of developing coronary heart disease 2-4 times more than nonsmokers. Second-hand smoke also increases the risk of heart disease for nonsmokers.

Based on American Heart Association data

**Stay healthy and enjoy a longer “health” span.
Call Cenegenics, the global leader in age management medicine: 866.953.1510.
Discussions are always confidential and without obligation.**