

## **Heart Disease: it is partially in your head**

-Harvard Health

For worse or for better, how you think, feel, and live your life affects your heart.

Intimate connections between the heart and mind were once taken for granted. In some cultures, the heart was believed to be the seat and source of emotions. As Western medicine gradually unraveled these connections, heart and mind drifted apart. A new field, behavioral cardiology, is trying to stitch them together again, this time with strong scientific threads.

This work is opening up new ways to prevent and treat heart disease that will be good for the mind and the rest of the body.

Psychosocial factors For better or for worse, your emotions and moods, and even parts of your personality, can influence your heart. It isn't a one-way street. The health of your circulatory system can affect how you feel. Habits that are good for the heart seem to be good for the mind and brain, too.

Psychological factors and social factors are sometimes lumped together as psychosocial factors. They affect heart disease in two basic ways. Some contribute to atherosclerosis, the slow, corrosive process that damages artery walls and puts you at risk for a heart attack or stroke. Others can add the final insult that triggers a heart attack or stroke.

Chemical conversations between the heart and the head affect both. Depression, stress, loneliness, a positive outlook, and other psychosocial factors influence the heart. The health of the heart can affect the brain and the mind.

Psychosocial factors aren't small potatoes. According to a comprehensive international study reported in *The Lancet* in 2004, their contribution to heart attacks is on a par with smoking, high blood pressure, obesity, and cholesterol problems. This isn't just in the stress-obsessed West, but in the Middle East, China and Hong Kong, Latin America, and Africa, too.

Depression. Symptoms of depression, as well as full-blown major depression, contribute to heart disease. People who become depressed after a heart attack or stroke, heart surgery, or the onset of heart failure don't fare as well as those who aren't depressed.

Anger/hostility. Atherosclerosis seems to advance faster in people who score high on anger or hostility scales. Anger can also trigger heart attacks. In the Harvard-based Determinants of Myocardial Infarction Onset Study, 1 in every 40 heart attack survivors reported an episode of anger in the two hours before the attack.

Anxiety. Intense anxiety, the kind associated with fear of enclosed places, heights, crowds, and the like, can sometimes set off a sudden cardiac arrest. These often-fatal heart attacks happen when the heartbeat abruptly turns fast and uncoordinated.

Social support. Among heart attack survivors, social isolation is almost as important as high cholesterol, high blood pressure, and smoking at predicting long-term survival.

Chronic stress. Constant stress from work, financial problems, a troubled marriage, taking care of a parent or partner, or even living in an unsafe neighborhood has been linked with the development of heart disease and doing poorer with it.

Sudden emotional stress. Sudden emotional turmoil can set off a type of serious but reversible heart failure

dubbed broken heart syndrome. Researchers at Johns Hopkins have documented its appearance in people after a death in the family, a surprise party, a robbery, a car accident, and even fear of speaking in public.

Whats the connection? How do emotions, behaviors, or social situations promote heart disease or make it worse? No one really knows. But there are plenty of theories.

Stress hormones top the list. They constrict blood vessels, speed up the heartbeat, and make the heart and blood vessels especially reactive to further stress. Psychosocial factors have also been linked with increases in C-reactive protein, interleukin-1, and tumor necrosis factor. These signal increased inflammation, which plays important roles in artery-clogging atherosclerosis.

Psychosocial factors could influence heart disease via a less physiologic route, through habits that tip one toward heart disease or away from it. Depression or isolation, for example, can keep people from taking the heart medications they need, while a positive outlook or strong social network can help people stop smoking or watch their weight.

What to do Most psychosocial risk factors are neither bad nor good. A little dose of stress, for example, can motivate you to face a challenge or finish a project. Constant stress, though, can be harmful. The same can be said for anger, anxiety, or isolation. The point is not to eliminate particular negative emotions, but to regulate them better, either to integrate them or bring them into balance with positive emotions or behaviors, says Dr. Laura Kubzansky, an assistant professor at the Harvard School of Public Health whose research focuses on the role of stress and emotion in cardiovascular disease and aging.

Getting started isnt easy. Admitting to yourself that youre chronically worried, stressed, sad, angry, or alone is hard. Telling someone else, like your doctor, is even harder. But its an important first step.

There is no one-size-fits-all way to make changes. Some people can do it on their own. Beginning (and sticking with) daily exercise can be a great way to ease stress or beat depression. A do-it-yourself program like the one described in *Mind Your Heart*, by Aggie Casey and Herbert Benson of the Mind/Body Medical Institute in Chestnut Hill, Mass., offers help with stress management, relaxation, and healthier habits. Just taking more vacation time might help.

Many people, though, need the kind of help that comes with talk therapy or formal, structured behavior modification programs.

The connection between psychosocial factors and heart disease is so strong that todays cardiologists should start the discussion by asking their patients about moods, energy, stress, and support. Most dont, at least not yet.

If yours doesnt, its worth bringing up these issues yourself. Your doctor might extend the conversation, offer good suggestions, or gather information you can use. Because cardiologists and primary care physicians get little training in this area, though, dont be surprised if yours is uncomfortable talking about depression, anger, loneliness, or other psychosocial factors, or doesnt know how to help. If thats the case, dont hesitate to ask for a referral to a mental health professional.

Dr. Kubzansky calls anger, depression, chronic stress, loneliness, and other negative psychosocial factors a signal that there is a problem, much like that of chronic pain. Its time to treat them with the same urgency and respect.