## A laugh a day may keep the cardiologist away

UMMC physician writes a prescription for frequent laughter to decrease the risk of heart disease

BY KAREN BUCKELEW
Daily Record Business Writer

How do you heal a broken heart? Smile.

Sounds too simple, doesn't it?

Yet one <u>University of Maryland</u> doctor says he has evidence that shows frequent laughter may decrease a person's risk of heart disease.

"It is important for people to take themselves less seriously — find whatever it is that makes an individual enjoy life or laugh to a high degree," said Dr. Michael Miller, director of the Center for Preventative Cardiology at University of Maryland Medical Center.

Miller led a recent study of 300 patients — half of whom had histories of heart disease — using questionnaires to gauge how healthy people and those with heart problems differed in their responses to situations where humor would be appropriate.

The study showed that people with heart disease were much less likely to even recognize humor. They also laughed less and were more likely to respond to stress with anger and hostility.

"I think it suggests that we'd probably all be better off if we were a little bit more lighthearted and laughed daily," Miller said. "Find a designated period of time and watch your favorite funny video or TV show or spend time with people that make you laugh."

Researchers decided to mount the study with two ideas in mind, he said.

"The first is, we always talk about negative risk factors for heart disease, but there are very few factors that are protective," Miller explained. "We also know that anger and hostility appear to accelerate heart disease."

While the University of Maryland study does not measure the biochemical effects of laughter in the patients, Miller said that research is being conducted on what humor does to the body.

"We know that laughter has an effect on the immune system," he said. "The stress reaction is reduced, and it reduces heart rate and blood pressure.

"We think there might be some factors released in the blood stream. A hearty laugh releases ... chemicals [that] produce a sense of pain relief and euphoria.

"We are tempted to see if there are other chemicals released during laughing that may relax blood vessels" and reduce the chance of a heart attack.



Dr. Michael Miller, director of the Center for Preventive Cardiology at the University of Maryland Medical Center, tells a joke so research assistant Carol Muscar can get her daily hearty laugh to lower her risk of heart disease.

Miller's study was presented at the American Heart Association's November conference in New Orleans.

AHA President Dr. Rose Marie

Robertson, a Vanderbilt University cardiologist, said Miller's findings are a good start, but there is much work to be done.

"I think there is no question that ... a sense of humor is a wonderful adaptive mechanism that in many cases replaces a stress response" of

anger and hostility, Roberston said.

But, she added, "They didn't really look at whether laughter prevented heart attacks. They compared people who'd already had a heart attack and people who hadn't.

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Dr. Michael Miller

"Those who hadn't were people who would laugh more. You might wonder if people who had had a heart attack"

would be less prone to laughter due to their illness. Miller acknowledged that possibility.

"It might be a combination of factors that contribute to their reduction of laughter," he said. "A lot of these individuals have had heart disease for a long time."

He added that a longterm study of health subjects would be more conclusive.

"You could look at individuals who are healthy, determine what their level of laughter is and follow them over time to see if it is a predicter," Miller said. Robertson commended the study for dealing with the psychological aspects of a patient's wellness, something that she said is often neglected as doctors have increasingly less time to spend with patients.

"The authors are focusing on an important issue," she said. "Patients who are depressed after a heart attack don't do as well. It means that physicians need to pay attention to the psychological state of their patients."

If the study is right, Miller said simple changes in a person's life could be worth it in the long run.

"I think as part of heart-healthy behavior, it would be reasonable to employ a lifestyle modification that would be ... beneficial," he said. "Anything that reduces stress would be useful, and laughter is part of stress reduction."