

# The New York Times

## Your Brain on Stress: An Unfocused Picture

By EILENE ZIMMERMAN

The link between stress and heart disease has affected thousands of patients of Dr. Eddie Erlandson, a vascular surgeon and the former chief of staff at St. Joseph Mercy Hospital in Ann Arbor, Mich.

But two years ago, Dr. Erlandson noticed another kind of link — between chronic stress and the job performance of many of his patients, particularly executives.

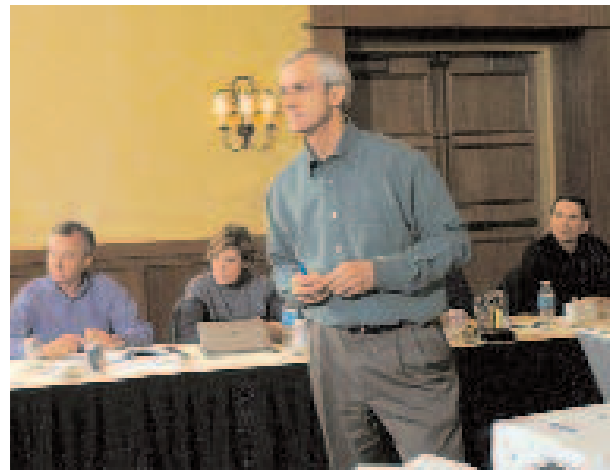
Many of those patients complained that they lacked clearheadedness and were making bad decisions at work. "They knew how stress was affecting them physically but were completely unaware of the toll it was taking on them mentally," he said. So he has left his medical practice to team up with his wife, a psychologist who had been running a company to train executives in how to reduce stress. Theirs is one of a crop of companies committed to helping senior managers cope.

Psychologists say many executives can thrive on stress, in moderate amounts. But the sluggish economy, widespread layoffs and heightened scrutiny of senior executives are combining to raise the stress levels in many senior-level jobs.

Relentless stress causes the body to respond as it does in an emergency, with a "fight or flight" response, said Dr. Redford Williams, who studies stress as part of the psychiatry department of Duke University Medical Center. "That response causes the hormones cortisol and adrenaline to be released, the sympathetic nervous system to fire off and the heart to pump four to five times more rapidly," he said. "Blood is shunted away from organs into muscles. When you are in this mode a good deal of the time your brain is scrambled, your thinking process doesn't work well, your judgment is clouded. It's very difficult to think clearly."

Doctors say it is hard to measure blood concentrations of stress hormones, but studies in animals have shown that elevated levels of these hormones are linked to an inability to think in a clear and focused way, said Dr. Bruce S. Rabin, medical director of the Healthy Lifestyle Program at the University of Pittsburgh Medical Center. "Anecdotal information — which comes from engaging individuals in high-

stress conditions and then in behaviors that lower the concentrations of these hormones — shows that lowering the concentration greatly increases a person's efficiency and focus, and lowers anxiety," he said. "This is especially significant for executives."



EDDIE ERLANDSON, MD, EVP, WORTH ETHIC

Chronic stress, or distress, is also linked to short-term memory loss for people in their 40's and 50's, a phenomenon long associated with people in their late 60's and 70's.

A lack of focus and clarity can play a part in poor decision-making. In addition, the brain normally uses memory to recognize patterns in information it receives, but chronic stress puts pressure on the brain to save energy and to go through only a minimal amount of information before believing it has recognized a pattern, said Dr. Susan Battley, a psychologist in New York who coaches and advises senior executives.

Under intense stress, executives think they recognize what is happening in a situation and make premature decisions, she said. "Since most executives are hard-charging by

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nature," she said, "they generally aren't aware of distress and don't see that the quality of their decisions and actions isn't what it used to be."

To help executives deal with stress, many companies and therapists now offer a range of techniques for recognizing it and keeping it at bay. Through their company, Worth Ethic, based in Carpinteria, Calif., Dr. Erlandson and his wife, Kate Ludeman, teach executives to identify problems in behavior patterns and to neutralize them.

Others use technology to help executives manage stress. HeartMath, a training and consulting firm in Boulder, Colo., has software that lets users see their heart rhythms in real time. When the rhythms go from smooth to chaotic, the users learn to use strategies like deep breathing and positive imagery to alleviate stress. "Most executives are numb to it and don't realize how stressed they are," said Bruce Cryer, the company's chief executive.

Gunder Creager, a senior vice president of Colliers International, a commercial real estate brokerage company in San Diego, tried a stress management program from HeartMath this year. He has been paid entirely on commission for 19 years, a situation he describes as extremely stressful.

After trying HeartMath's stress reduction techniques for several months, Mr. Creager said, he has become more effective at work. "I think I make better decisions now," he said. "My mind just feels clearer. When I'm stressed, everything narrows down and I focus on one thing, rather than the big picture."

Elizabeth Hall, now a vice president of human resources development at Liz Claiborne, first noticed the effect of stress on performance several years ago. "I felt the weight of too many demands," she said. "I didn't listen deeply to what people were saying; I couldn't act decisively. I was paralyzed by contradictory demands and messages. And I couldn't be proactive because I was too concerned about risks."

Ms. Hall started using stress reduction techniques from HeartMath and other sources. Now, she says, "I use all the pieces of my intelligence — intellectual, emotional, organizational, behavioral and intuitive — in making decisions."

Some executives use their own methods to try to keep stress in check. One design executive at Mattel uses a sound chair, where she and her design team take turns listening to a series of CD's intended to reduce stress and to leave the brain more conducive to creativity.

Some experts say intense bursts of severe stress can be beneficial, but only if they are followed by periods of complete disengagement from the stressful situation. Tony Schwartz, co-author with Jim Loehr of "The Power of Full Engagement" (Free Press), suggests limiting exposure to stress to 90 to 120 minutes and then switching gears for at

least 5 to 10 minutes to help the body and brain recover energy. "You simply can't be fully engaged 24 hours a day," Mr. Schwartz said. "Our bodies are begging us for a chance to recover."

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Kate Ludeman, PhD, is CEO and founder of Worth Ethic Corporation and author of *The Corporate Mystic* and four other books. She has been a featured speaker at the Fortune Magazine Summit of the Best and Most Admired Companies and has coached more than 1,000 CEOs and senior executives on every continent.



Eddie Erlandson, MD, is a Senior Vice President at Worth Ethic Corporation and a former hospital Chief of Staff and vascular surgeon. He delivers keynote talks, coaches executives on leadership, and facilitates hospital mergers.



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