



An independent study demonstrates that HeartMath® stress reduction techniques effectively improve memory

According to the Census Bureau, as of July 2005 there were an estimated 78.2 million baby boomers. As the number of boomers passing the age of 50 increases, keeping a sharp memory can become a challenging aspect of aging. A new independent study conducted at Cognitive Drug Research (CDR) in Berkshire, England demonstrates that **HeartMath** stress reduction techniques are effective for improving the quality of memory. The Institute HeartMath®, a nonprofit research and education organization, is known worldwide for its research on the physiology of and relationship between the heart, stress, and emotions.

HeartMath (www.heartmath.org), located in Boulder Creek, California, disclosed the results of this recent study which looked at the effects of stress relief tools that build heart coherence on the quality of memory. The scientific term “coherence” refers to a mental and emotional state that people experience when they are in-sync — when the heart, brain, and nervous system work with more harmony and efficiency. Simply said, more coherence equals improved cognitive function and less stress.

In this study, participants saw significant improvements in the quality of long-term memory over a six-week period when using HeartMath’s Freeze-Framer® Interactive Learning System, a PC-based program designed to teach the user to build and sustain coherence, along with HeartMath’s stress reduction techniques.

Professor Keith A. Wesnes, Ph.D., founder of CDR, examined the effects of coherence on cognitive function. He used a cognitive measurement system which was developed by CDR to evaluate the effects of pharmaceuticals on cognitive function. After a collection of baseline measurements were gathered, the study participants were taught HeartMath’s stress reduction techniques while using the Freeze-Framer to ensure that they were able to shift into a state of heart coherence and could identify what that state felt like.

The participants practiced the Freeze-Framer program along with the stress management techniques daily throughout the duration of the study.

The results showed that participants experienced an average increase of 12.6% in the quality of long-term memory over the six-week period. Prof. Wesnes reported that the magnitude of improvement was considerably higher than those seen in a study on the memory enhancing effects of a ginkgo/ginseng extract with healthy volunteers. In the 12-week ginkgo/ginseng study, participants only experienced a 7.5% improvement.

Prof. Wesnes concluded that practicing HeartMath's Freeze-Framer program and stress reduction techniques increased participants' level of coherence which was correlated with the improvements in memory and calmness.

HeartMath's Freeze-Framer program teaches the user to quickly bring their heart rhythms into balance, which facilitates heart coherence. A finger or earlobe sensor feeds the user's heartbeat into a PC where they can watch their heart rhythms shift in real time on their computer monitor. The program also includes fun interactive games that are powered by the user's heart rhythms and ability to sustain coherence.

For the 78.2 million baby boomers looking for a safe alternative for improving memory, this study validates an effective method that not only provides memory improvement but also offers the added benefit of balancing the mind and emotions to minimize stress.

About Institute of HeartMath:

The Institute of HeartMath is a nonprofit education and research organization. For the past fifteen years, HeartMath's clinical studies have demonstrated the critical link between emotions, heart function, and cognitive performance. HeartMath's compelling solutions for stress relief (scientifically-validated stress management tools) have been published in peer-reviewed journals such as *American Journal of Cardiology*, *Stress Medicine*, *Preventive Cardiology*, *Journal of the American College of Cardiology*, and *Alternative Therapies in Health and Medicine*.

About Cognitive Drug Research:

Professor Keith A. Wesnes has published over 100 peer-reviewed research articles and holds University appointments including a Visiting Professorship at the Human Cognitive Neuroscience Unit, Northumbria University. Professor Wesnes founded Cognitive Drug Research in 1986, which has since grown to be the world's leading provider of automated cognitive function testing facilities for clinical trials. Since the company was formed, the CDR computerized cognitive assessment system has been used in over 500 clinical trials worldwide.