



NEWS RELEASE

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## Penn Study Shows Transcendental Meditation Can Help Combat Congestive Heart Failure

*Results of NIH-Funded Study Published in the Journal Ethnicity & Disease*

Researchers from the **University of Pennsylvania School of Medicine** > have found that a widely practiced, stress-reducing meditation technique can significantly reduce the severity of congestive heart failure.

Researchers evaluated 23 African American men and women, average age 64, who were recently hospitalized with New York Heart Association class > II or III congestive heart failure. Participants were randomized to either the Transcendental Meditation® (TM) technique or health education – in addition to standard medical treatment.

According to the study authors, TM most likely improves heart failure by > reducing sympathetic nervous system activation associated with stress that is known to contribute to the failing heart.

> The study appears in the Winter 2007 issue of *Ethnicity & Disease*.

(PHILADELPHIA) – In this high-tech age of modern medicine, could it be possible to treat the leading cause of death in the U.S. through the power of meditation? According to a first-of-its-kind randomized study conducted by researchers from the **University of Pennsylvania School of Medicine**, a widely practiced, stress-reducing meditation technique can significantly reduce the severity of congestive heart failure. The study appears in the Winter 2007 issue of *Ethnicity & Disease*.

“The results of this study indicate that transcendental meditation can be effective in improving the functional capacity and quality of life of congestive heart failure patients” said **Ravishankar Jayadevappa, PhD**, lead author and Research Assistant Professor in Penn’s Division of Geriatric Medicine. “These results also suggest long-term improvements in survival in these individuals.”

Jayadevappa and fellow researchers from Penn evaluated 23 African American men and women, average age 64, who were recently hospitalized with New York Heart Association class II or III congestive heart failure. Participants were randomized to either the Transcendental Meditation® (TM) technique or health education – in addition to standard medical treatment.

Researchers measured changes in heart function with a six-minute walk test, and measures for quality of life, depression, and re-hospitalizations. Changes in outcomes from baseline to three and six months after treatment were analyzed.

According to Jayadevappa, the TM group significantly improved on the six-minute walk test after both three and six months of TM practice compared to the control group. The

TM group also showed improvement in quality of life measurements, depression, and had fewer re-hospitalizations.

This present finding is consistent with previous research demonstrating that TM reduces factors that contribute to the cause or progression of heart failure, such a high blood pressure, stress, metabolic syndrome, left ventricular hypertrophy (enlargement of the heart) and severity of atherosclerosis (hardening of the arteries). Further validation of the outcomes of this study is planned via a large, multi-center trial with long-term follow-up.

According to the study authors, TM most likely improves heart failure by reducing sympathetic nervous system activation associated with stress that is known to contribute to the failing heart.

This study was sponsored by the National Institutes of Health-National Center for Complementary and Alternative Medicine, in a collaboration between the University of Pennsylvania with the Institute for Natural Medicine and Prevention at Maharishi University of Management.

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*Penn's School of Medicine is ranked #2 in the nation for receipt of NIH research funds; and ranked #3 in the nation in U.S. News & World Report's most recent ranking of top research-oriented medical schools.*