



American Association for the Advancement of Science

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## **Transcendental Meditation More Effective in Reducing High Blood Pressure Compared to Other Stress Reduction Programs, Study Shows**

**LEXINGTON, Ky. (Dec. 4, 2007)** – People with high blood pressure may find relief from Transcendental Meditation, according to a definitive new meta-analysis of 107 published studies on stress reduction programs and high blood pressure, which will be published in the December issue of *Current Hypertension Reports*.

The Transcendental Meditation technique produces a statistically significant reduction in high blood pressure that is not found with other forms of relaxation, meditation, biofeedback or stress management.

The new meta-analysis reviewed randomized, controlled trials of all stress reduction and relaxation methods in participants with high blood pressure that have been published in peer-reviewed scientific journals.

Blood pressure changes for the Transcendental Meditation technique included average reductions of 5.0 points on systolic blood pressure and 2.8 on diastolic blood pressure, which were statistically significant, according to the review. The other stress reduction programs did not show significant changes in blood pressure.

Blood pressure changes associated with Transcendental Meditation practice were consistent with other controlled studies showing reductions in cardiovascular risk factors, improved markers of heart disease, and reduced mortality rates among participants in the Transcendental Meditation program.

The new meta-analysis was conducted by researchers at the University of Kentucky College of Medicine and at the NIH-funded Institute of Natural Medicine and Prevention at Maharishi University of Management.

According to Dr. James Anderson, professor of medicine at the University of Kentucky and co-author of the new meta-analysis, the findings of the new review rebut a July 2007 report sponsored by the Agency for Healthcare Research and Quality and the NIH-National Center for Complementary and Alternative Medicine, which concluded that most research on meditation is low quality and found little evidence that any specific stress reduction effectively lowers blood pressure. The new meta-analysis identified all high quality meditation studies published through 2006 and rigorously analyzed their effects, which the previous government report failed to do.

Anderson said the new meta-analysis includes only high quality studies on all available stress reduction interventions. The studies on Transcendental Meditation were conducted at five independent universities and medical institutions, and the majority of them were funded by competitive grants from the National Institutes of Health.

“The magnitude of the changes in blood pressure with the Transcendental Meditation technique are at least as great as the changes found with major changes in diet or exercise that doctors often recommend,” Anderson said. “Yet the Transcendental Meditation technique does not require changes in lifestyle. Thus many patients with mild hypertension or prehypertension may be able to avoid the need to take blood pressure medications—all of which have adverse side effects. Individuals with more severe forms of hypertension may be able to reduce the number or dosages of their BP medications under the guidance of their doctor.”

Anderson added that long-term changes in blood pressure of this magnitude are associated with at least a 15 percent reduction in rates of heart attack and stroke. "This is important to everyone because cardiovascular disease is the number one cause of death in the U.S. and worldwide," Anderson said.

The study's biostatistician, Maxwell Rainforth, assistant professor of Physiology and Health Statistics at Maharishi University of Management, said the meta-analysis used state-of-the-art statistical methods to review 107 published studies in the field of stress reduction, relaxation and blood pressure. "The twenty-three separate studies included in the final analysis met well-known criteria for high scientific quality. That is, these studies used repeated blood pressure measurements and participants were randomized to either a stress reduction technique or placebo-type control for at least eight weeks. The data we used are all published in peer-reviewed scientific journals," Rainforth said.

According to Dr. Robert Schneider, director of the Institute of Natural Medicine and Prevention and co-author, this rigorously conducted meta-analysis indicates that the Transcendental Meditation program is distinctively effective compared to other scientifically studied techniques in lowering high blood pressure.

"For those 100 million Americans with elevated blood pressure, here is a scientifically documented, yet simple and easy way to lower blood pressure without drugs and harmful side effects. In addition, related studies show an integrated set of positive 'side benefits,' such as reduced stress, reduced heart disease levels and longer lifespan with this technique to restore balance in the cardiovascular system, mind and body," Schneider said.

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