

New study validates new approach to high blood pressure

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It truly could be mind over matter after all. University Hospitals Case Medical Center's Richard Josephson, MD, recently released trial results in a study published in *Psychosomatic Medicine* that discusses mindfulness-based stress reduction (MBSR) for hypertension.

Nearly 60 million adults in the United States have [high blood pressure](#) in the pre-hypertensive range. Current treatment guidelines recommend lifestyle changes such as diet, exercise and overall weight loss.

According to the new study, these changes can be dramatically augmented by MBSR as the methodology includes stress reduction, meditation for depression and anxiety and structured treatment management program.

The blinded trial included nearly 100 patients between 30-60 years of age who were not taking medications for pre-or hypertension. The study was conducted with Joel Hughes PhD, Associate Professor of Psychology at Kent State University.

"This was one of the first prospective randomized trials of MBSR as a nonpharmacologic treatment option," said study author Dr. Josephson, Director Cardiac Intensive Care and Cardiovascular and Pulmonary Rehabilitation at the UH Harrington Heart & Vascular Institute and Professor of Medicine at Case Western Reserve University School of Medicine.

"We are optimistic about its potential as a result of the findings and hope that more trials can be conducted to further evaluate the effectiveness of MBSR as it could have broad applications for multiple maladies."

The mindfulness-based [stress reduction](#) program consisted of eight group sessions that were 2.5 hours in duration and consecutive weeks. The MBSR included instruction and practice in [mindfulness meditation](#) skills along with discussion of stress, coping and homework assignments designed for patients to document their mood and anxiety levels.

A therapist participated in the exercises with the group and guided them through body scan exercise where the participants "inventoried" how they felt in all parts of their body, sitting meditation and yoga. The trial required participants to practice each for 45 minutes six days a week.

The alternate arm of the trial involved only progressive muscle relaxation (PMR) that included tension and release of specific muscle groups and homework assignments designed to mimic session time exercises.

MBSR resulted in substantial and statistically significant reductions in the primary outcomes, a -4.8-mm Hg reduction in systolic [blood pressure](#) (SBP) and a 1.9-mm Hg reduction in diastolic blood pressure (DBP) when measured in the clinic. PMR resulted only in a decrease of 0.7-mm in SBP and an increase of 1.2-mm Hg in DBP. MBSR did not result in a larger decrease than PMR in pressures measured outside of the clinic by programmed monitors during the day or during sleep.

The study was funded by a grant from the National Center for Complementary and Alternative Medicine, National Institutes of Health to Case Western Reserve.

"This could prove to be an adjunct for individuals with poorly controlled

blood pressure," said Dr. Josephson. "It could also potentially decrease the need for medications as the only options for optimizing blood pressure levels."

Provided by University Hospitals Case Medical Center

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