

Mindfulness-based stress reduction helps lower blood pressure, study reports

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Blood pressure is effectively lowered by mindfulness-based stress reduction (MBSR) for patients with borderline high blood pressure or "prehypertension." This finding is reported in the October issue of *Psychosomatic Medicine: Journal of Biobehavioral Medicine*, the official journal of the American Psychosomatic Society.

"Our results provide evidence that MBSR, when added to lifestyle modification advice, may be an appropriate complementary treatment for BP in the prehypertensive range," writes Joel W. Hughes, PhD, of Kent State (Ohio) University and colleagues.

Mindfulness Practice Leads to Drop in Blood Pressure

The study included 56 women and men diagnosed with prehypertension—[blood pressure](#) that was higher than desirable, but not yet so high that [antihypertensive drugs](#) would be prescribed. Prehypertension receives increasing attention from doctors because it is associated with a wide range of heart disease and other [cardiovascular problems](#). About 30% of Americans have prehypertension and may be prescribed medications for this condition.

One group of patients was assigned to a program of MBSR: eight group sessions of 2½ hours per week. Led by an experienced instructor, the sessions included three main types of mindfulness skills: body scan

exercises, sitting meditation, and yoga exercises. Patients were also encouraged to perform mindfulness exercises at home.

The other "comparison" group received lifestyle advice plus a muscle-relaxation activity. This "active control" treatment group was not expected to have lasting effects on blood pressure. Blood pressure measurements were compared between groups to determine whether the mindfulness-based intervention reduced blood pressure in this group of people at risk of cardiovascular problems.

Patients in the mindfulness-based intervention group had significant reductions in clinic-based blood pressure measurements. Systolic blood pressure (the first, higher number) decreased by an average of nearly 5 millimeters of mercury (mm Hg), compared to less than 1 mm Hg with in the control group who did not receive the mindfulness intervention.

Diastolic blood pressure (the second, lower number) was also lower in the mindfulness-based intervention group: a reduction of nearly 2 mm Hg, compared to an increase of 1 mm Hg in the control group.

Mindfulness-based interventions Could 'Prevent or Delay' Need for Antihypertensive Drugs Ambulatory monitoring is an increasingly used alternative to clinic-based blood pressure measurements. However, 24-hour ambulatory blood pressure monitoring showed no significant difference in blood pressure with the mindfulness-based intervention.

"Mindfulness-based stress reduction is an increasingly popular practice that has been purported to alleviate stress, treat depression and anxiety, and treat certain health conditions," according to Dr Hughes and coauthors. It has been suggested that MBSR and other types of meditation may be useful in lowering blood pressure. Previous studies have reported small but significant reductions in blood pressure with Transcendental Meditation; the new study is the first to specifically

evaluate the blood pressure effects of mindfulness-based intervention in patients with prehypertension.

Although the blood pressure reductions associated with mindfulness-based interventions are modest, they are similar to many drug interventions and potentially large enough to lead to reductions in the risk of heart attack or stroke. Further studies are needed to see if the blood pressure-lowering effects are sustained over time.

The researchers argue that mindfulness-based interventions may provide a useful alternative to help "prevent or delay" the need for antihypertensive medications in patients with borderline high blood pressure.

Provided by Wolters Kluwer Health

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