

those skills to have healthy relationships with their diet, physical activity, alcohol use, medication adherence and stress, led to notably lower systolic (top number) blood pressure measures six months after participating in the mindfulness program, according to late-breaking science presented today at the American Heart Association's Scientific Sessions 2022. The meeting, held in person in Chicago and virtually, Nov. 5–7, 2022, is a global exchange of the latest scientific advancements, research and evidence-based clinical practice updates in cardiovascular science.

Nearly half of U.S. adults have [high blood pressure](#), or hypertension, and many aren't aware they have it, according to the American Heart Association. High blood pressure—a consistently high force of blood flowing through [blood vessels](#)—is a risk factor for heart disease and stroke, the No. 1 and No. 5 causes of death in the U.S., respectively.

The mindfulness program focused on training participants in skills such as attention control, self-awareness and emotion regulation, and then applied that training to health behavior change. This approach may offer a novel way to improve [blood pressure control](#), according to lead study author Eric B. Loucks, Ph.D., associate professor of epidemiology and director of the Mindfulness Center at Brown University in Providence, Rhode Island.

"Mindfulness is non-judgmental, present-moment awareness of physical sensations, emotions and thoughts," Loucks said. "It is almost like a scientist curiously and objectively observing the information coming in through the sense organs and the mind, and then responding skillfully to that information. Mindfulness also involves the concept of remembering, or in other words, remembering to bring one's wisdom (wherever it was gained, such as from [health care professionals](#) or public health messages) into the present moment. Wisdom in the context of elevated [blood pressure levels](#) may include knowledge that evidence-based practices,

such as [physical activity](#), diet, limited alcohol consumption and antihypertensive medication adherence, can improve well-being."

In this study, researchers compared enhanced usual care (e.g., a home blood pressure monitor, blood pressure education material, facilitated access to a physician if needed) to participation in an 8-week mindfulness-based program, customized for people with elevated blood pressure.

This clinical trial, conducted from June 2017 to November 2020, included more than 200 adults recruited from the Providence, Rhode Island area who had elevated/high blood pressure, defined as greater than 120 mm Hg systolic or 80 mm Hg diastolic blood pressure. Participants included men (41%) and women (59%), average age 59 years, 81% were white adults and 73% had a college education.

About half of the participants were randomly assigned to the enhanced usual care group. The remaining participants received the [mindfulness program](#), called Mindfulness-Based Blood Pressure Reduction (MB-BP). Those in the [intervention group](#) went to a group orientation session, eight 2.5-hour weekly group sessions and a 7.5-hour, one-day group retreat. Recommended home mindfulness practice was at least 45 minutes a day, six days a week.

At six months, researchers found:

- Participants in the Mindfulness-Based Blood Pressure Reduction group had an average drop in systolic blood pressure of 5.9 mm Hg, compared to a 1.4 mm Hg reduction in [systolic blood pressure](#) in the enhanced usual care group.
- There were no notable changes in [diastolic blood pressure](#) measures for either group.
- Those in the Mindfulness-Based Blood Pressure Reduction group

also reduced sedentary sitting by an average of 351 minutes each week compared to the participants in the enhanced usual care group.

When the researchers analyzed changes in diet including eating a diet consistent with the recommendations in the Dietary Approaches to Stop Hypertension diet (DASH), perceived stress and mindfulness, they found participants in the mindfulness intervention group were more likely to eat heart-healthy foods, report improved perceived stress and levels of mindfulness.

While more research on using the Mindfulness-Based Blood Pressure Reduction program for blood pressure control needs to be done to confirm these results, the intervention is promising as a [blood pressure](#) lowering intervention, according to Loucks.

Among the limitations of the study is that most participants were college-educated white adults, which limits its generalizability to people from diverse racial and ethnic groups or who have other education levels.

More information: Link to session [abstract](#)

Provided by American Heart Association

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