

Migraine linked to increased risk of high blood pressure after menopause

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Women who have migraine before menopause may have an increased risk of developing high blood pressure after menopause, according to a study published in the April 21, 2021, online issue of *Neurology*, the medical journal of the American Academy of Neurology.

"Migraine is a debilitating disorder, often resulting in multiple severe headaches a month, and typically experienced more often by women than men," said study author Gianluca Severi, Ph.D. of the French National Institute of Health and Medical Research in Paris. "Migraine is most prevalent in women in the years before menopause. After menopause, fewer women experience migraines, however this is when the prevalence of high blood pressure in women increases. Migraine is a risk factor for [cardiovascular disease](#). Therefore, we wanted to determine if a history of migraine is linked to an [increased risk](#) of high blood pressure after menopause."

The study involved 56,202 women who did not have high blood pressure or cardiovascular disease at the age when their menopause began.

Of this group, 46,659 women never had migraine and 9,543 women had experienced migraine. Women were followed up to 20 years and completed health surveys every two to three years. By the end of the study, 11,030 women reported experiencing migraine.

A total of 12,501 women developed high blood pressure during the study. This included 9,401 of the women with no migraine and 3,100 of the women with migraine. Women with migraine also developed high blood pressure at a younger age than women without migraine. The average age of diagnosis for women without migraine was 65 and for women with migraine was 63.

Researchers calculated the risk of developing high blood pressure using person-years, which represent both the number of people in the study and the amount of time each person spends in the study.

During the 826,419 person-years in the study, there was an overall rate of 15 cases of high blood pressure diagnosed for every 1,000 person years. For women without migraine, the rate was 14 cases for every 1,000 person-years compared to 19 cases per 1,000 person-years for women with migraine.

After adjusting for factors such as body mass index, physical activity levels, and family history of cardiovascular disease, researchers found that women who had migraine before menopause had a 29% increased risk of developing high blood pressure after menopause.

Researchers found the risk of developing high blood pressure was similar in women with migraine with aura and without.

"There are multiple ways in which migraine may be linked to high blood pressure," said Severi. "People with migraine have been shown to have early signs of arterial stiffness. Stiffer, smaller vessels are not

as capable of accommodating blood flow, resulting in pressure increases. It is also possible that associations could be due to genetics. Since previous research shows migraine increases the likelihood of cardiovascular events, identification of additional [risk factors](#) such as the higher likelihood of high blood pressure among people with migraine could aid in individualized treatment or prevention. Doctors may want to consider women with a history of migraine at a higher risk of high blood pressure."

The study does not show that migraine causes [high blood pressure](#) after [menopause](#). It only shows an association between the two.

A limitation of the study was [migraine](#) was self-reported by the [women](#) and may have been misclassified. High [blood pressure](#) was self-reported as well, meaning some cases may have been missed.

Provided by American Academy of Neurology

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