

Severe hot flashes after menopause increase metabolic syndrome risk in women

Women who experience more severe hot flashes after menopause are more likely to develop metabolic syndrome and high blood pressure, according to research presented at the 25th European Congress of Endocrinology in Istanbul. The findings of this long-term study highlight the importance of using hormone replacement therapy for menopause in these women.

Metabolic syndrome is a group of three or more conditions that occur together, which increase the risk of heart disease, stroke and type 2 diabetes. These conditions include high blood pressure, high blood sugar, excess body fat around the waist and abnormal cholesterol or triglyceride levels. After menopause, women are at a higher risk of developing metabolic syndrome and cardiovascular disease.

In this study, researchers from the National and Kapodistrian University of Athens examined 825 healthy women aged 40-65 years, who had recently gone through menopause, at Aretaieion University Hospital Athens in Greece. They monitored these women over the course of 15 years, between 2006 and 2021, and found that those with moderate to severe hot flashes were more likely to develop hypertension and metabolic syndrome. Additionally, women who developed hypertension or metabolic syndrome were diagnosed earlier when experiencing more severe hot flashes compared to those who had no or milder cases of hot flashes.

Previous studies have also shown an association between hot flashes and cardiovascular health risk; women experiencing hot flashes have a higher risk of developing different types of conditions that affect the heart and blood vessels. However, this association has never been studied in women with varying degrees of symptoms on such a large scale. "Our long-term study is carefully designed, in which we matched a carefully selected group of women according to the severity of hot flashes and their age, and followed them for up to 15 years," said lead researcher Dr Elena Armeni.

Symptoms like hot flashes and night sweats can start around the time of menopause and can last up to 10 years. However, hormone replacement therapy – medication that contains hormones which the body can no longer make after menopause – can be used to treat menopausal symptoms and protect long-term health, especially in women who have moderate to severe hot flashes. "Our results re-emphasise the role of cardiovascular prevention strategies, such as the use of hormone replacement therapy, which should be implemented shortly after menopause," said Dr Armeni. "This healthy group of women who are already candidates for hormone replacement therapy should be encouraged to opt for this treatment."

The researchers are now interested in whether these accumulated health risk factors cause heart conditions. "Our study shows that the most symptomatic women after menopause have more prevalent cardiovascular risk factors, but it is unclear if they are also more likely to develop heart disease, type 2 diabetes, or have a stroke," said Dr Armeni. "If so, women with more disturbing symptoms will require appropriate health education to ensure they will remain fit and healthy in old age."

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Notes for Editors:

1. For press enquiries, or to arrange an interview with the study authors, please contact the ECE 2023 press office:

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2. The study **“The severity of hot flashes is associated with the risk for incident metabolic syndrome and new-onset hypertension after the menopause”** will be presented on Sunday 14 May 2023 at the European Congress of Endocrinology at the Halic Congress Center in Istanbul, Turkey.
3. The 25th European Congress of Endocrinology (ECE) is held at the Halic Congress Center in Istanbul, Turkey, on 13-16 May 2023. See the full scientific programme [here](#).
4. The [European Society of Endocrinology](#) (ESE) provides a platform to develop and share leading research and best knowledge in endocrine science and medicine. By uniting and representing every part of the endocrine community, we are best placed to improve the lives of patients. With over 5,000 individual members and through the 51 National Societies involved with the ESE Council of Affiliated Societies (ECAS), ESE represents a community of over 20,000 European endocrinologists. We inform policy makers on health decisions at the highest level through advocacy efforts across Europe.