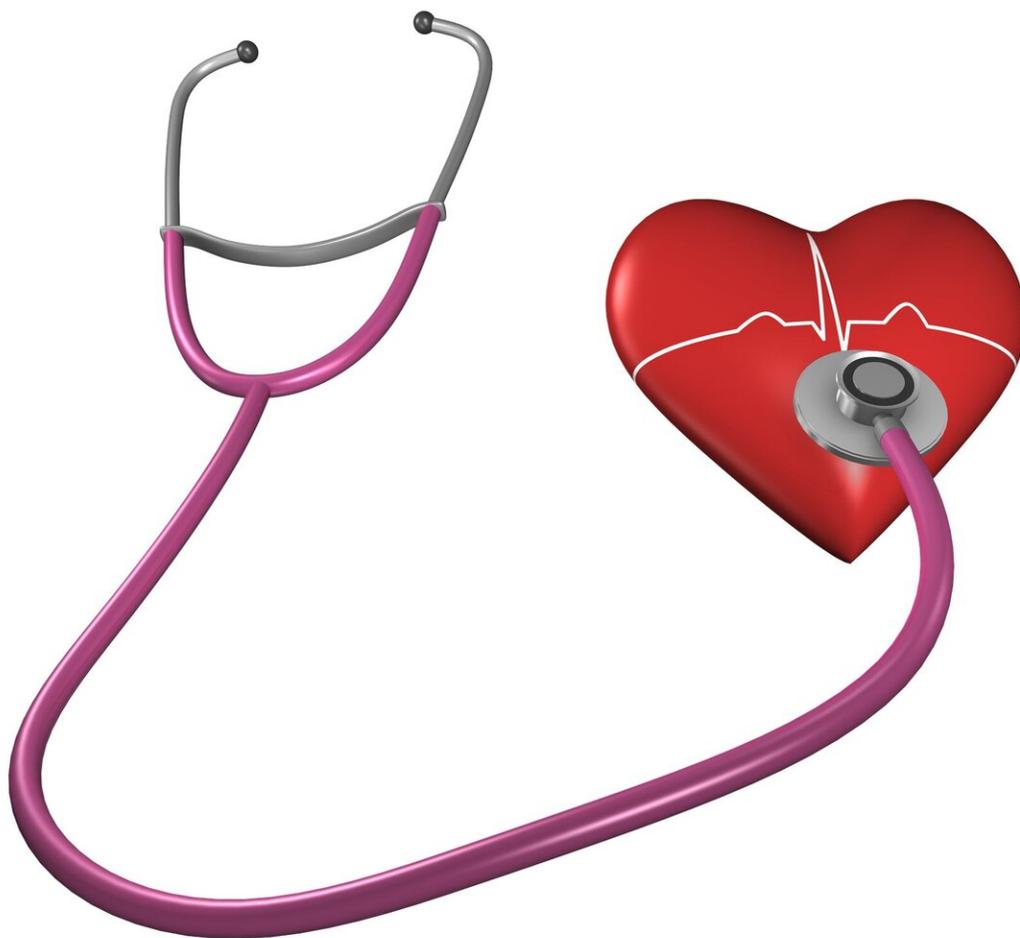


Determining 'vascular age' is best predictor of cardiovascular risk with hormone therapy, says study

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For women who are talking to their physicians about hormone therapy for the relief of menopausal symptoms, the decision isn't always straightforward. Hormone therapy brings an increased risk of cardiovascular disease, but so does midlife itself—simply because of the aging process and an increase in risk factors like high blood pressure and obesity.

Robert Wild, M.D., Ph.D., MPH, a physician-scientist at the University of Oklahoma College of Medicine, recently published a breakthrough study in the journal *Menopause* that provides clarity on the subject. His research shows that determining a woman's "vascular age" is a better indicator for [cardiovascular disease risk](#) than her chronological age or years since menopause.

For years, physicians have typically considered a woman's age and how long she's been in menopause to decide whether [hormone](#) therapy is sufficiently low risk. However, that doesn't always provide the clearest answer. A 52-year-old woman who smokes, is overweight and has high cholesterol faces a much higher cardiovascular risk than a 65-year-old woman who has few [risk factors](#). Wild's study demonstrated that measuring a woman's cardiovascular disease risk, or vascular age, is a much better tool for making decisions about hormone therapy.

"What this study tells us is that we have to look at the true risk of cardiovascular disease independent of age," Wild said. "Age certainly plays a role, but it is modified by other risk factors. We have to make individualized decisions instead of using a broad brush stroke."

Wild, who was the lead author on the publication, studied data from the Women's Health Initiative, a long-term research project that focused on strategies for preventing [heart disease](#) and several other conditions in post-menopausal women. In the hormone therapy trial, the largest of its kind in the world, 27,347 post-menopausal women ages 50 to 79 were enrolled from 1993 to 1998 across the United States; some received hormone therapy and some received a placebo. Because a large amount of data about the women's overall health had been gathered when they enrolled, and the trial continued to analyze them for nearly 18 years, there was a treasure trove of information about which women ended up with cardiovascular disease.

To examine that data, Wild used two different cardiovascular risk scoring systems. One is from the American Heart Association and American College of Cardiology, and the other is called the Framingham Risk Score. The two scoring systems are similar in that they assess vital signs like age, race, total cholesterol, HDL (the "good" part of cholesterol), systolic blood pressure, use of blood pressure medication, diabetes and smoking status. The Framingham score differs because it substitutes body mass index (BMI) for HDL cholesterol.

At the conclusion of the study, the evidence was clear: Both cardiovascular risk scoring systems were a better predictor of cardiovascular disease than chronological age and years since menopause.

"This is a landmark study because it is contrary to what the prevailing argument has always been," Wild said. "It is the culmination of a lot of years of work, and it's gratifying that it is now published and is being heard. It's important for our management of patients because it allows us to begin to quantify risk and refine it above and beyond a simple age estimate."

Over the years, hormone therapy has led to polarization among medical fields. Cardiologists tend to be against hormone therapy, while gynecologists and primary care physicians have been more likely to prescribe it to ease their patients' symptoms. However, Wild's study provides a middle ground and an enhanced method of predicting risk. He said he hopes the approach quickly becomes part of clinical practice. The risk scoring systems are easy to use, he said, and many health systems have integrated them into their electronic health records.

Wild is also incorporating his study results into his work as an educator of medical students and residents. He is developing a clinic, particularly for those going into primary care and obstetrics and gynecology, that will give them more in-depth experience with menopause management.

The research also should be empowering for patients, who can share in the decision-making process about starting hormone [therapy](#) or changing doses if they've already begun.

"We have to individualize our decisions about [hormone therapy](#)," Wild said. "This study validates that we can do that because we can better estimate vascular age."

Provided by University of Oklahoma

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