

Pregnant women with hypertension and their siblings face increased risk of heart disease

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High blood pressure during pregnancy is a risk factor for future hypertension and cardiovascular disease, but it's not clear if this increased risk is because these women are more likely to have a family history of heart disease or if elevated blood pressure during pregnancy causes long-term metabolic and vascular abnormalities. A study appearing in the *Journal of the American Society of Nephrology (JASN)* now provides some insights.

To investigate the issue, a team led by Tracey Weissgerber, PhD and Vesna Garovic, MD (Mayo Clinic) analyzed information on 919 men and 1477 women from 954 sibships who participated in the Genetic Epidemiology Network of Arteriopathy study, which examined the genetics of hypertension in white, black, and Hispanic siblings. "We wanted to isolate the effect of high blood pressure during pregnancy by comparing the risk of hypertension, [heart disease](#), and stroke in women who had hypertension during pregnancy, and their sisters," explained Dr. Garovic. "We also wanted to determine whether [heart disease risk](#) was increased in brothers and sisters of women who had hypertension in pregnancy."

Among the major findings:

- Compared with their sister(s) who had normal blood pressures during pregnancy, women who had hypertension in pregnancy were 75% more likely to develop hypertension later in life.

- Men and women whose sister(s) had hypertension in pregnancy were 24% and 15% more likely to develop hypertension later in life, respectively, when compared with men and women from families in which no sister had hypertension in pregnancy.
- Brothers, but not sisters, of women who had [hypertension](#) in pregnancy were also more likely to have [cardiovascular disease](#) later in life.

"The increased risk of high blood pressure in siblings suggests that family history contributes to the increased risk of high blood pressure in women during pregnancy; however, women who had high blood pressure in pregnancy were still more likely to develop high blood pressure later in life than their sisters who had normal blood pressure in pregnancy," said Dr. Weissgerber. "Further studies are needed to determine whether this increased risk in women who had high blood pressure in pregnancy is due to stronger genetic predisposition to high blood pressure, other [risk factors](#), or lasting damage caused by [high blood pressure](#) in pregnancy."

More information: The article, entitled "Hypertension in Pregnancy and Future Cardiovascular Event Risk in Siblings," will appear online at jasn.asnjournals.org/ on August 27, 2015.

Provided by American Society of Nephrology

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