Hypertensive disorders during pregnancy increase risk for high blood pressure after delivery

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Women who are diagnosed with hypertensive disorders while pregnant are more than twice as likely to develop high blood pressure in the first year after delivery as women who did not have any pregnancy-related hypertension, according to a Kaiser Permanente study published today in the *Journal of Hypertension*.

Hypertensive disorders during pregnancy are common, affecting up to 10 percent of all pregnant women, and include gestational hypertension, preeclampsia (which is a combination of high blood pressure and proteinuria), and eclampsia, which includes seizures in women with preeclampsia.

"Research has shown that hypertensive disorders in pregnancy are associated with long-term cardiovascular disease risk, but little is known about the effect of these conditions in the early years after delivery," said the study's lead author, Mary Helen Black, PhD, MS, a researcher with Kaiser Permanente's Department of Research & Evaluation in Southern California. "Our study suggests there is a subset of women who develop hypertension in pregnancy and present with elevated blood pressure in the first year after delivery despite being otherwise healthy prior to pregnancy."

The study found that women who had a hypertensive disorder during pregnancy were 2.4 times more likely—and women with pre-eclampsia/eclampsia 2.5 times more likely—to develop pre-hypertension or hypertension in the year after delivery than those women who maintained a normal blood pressure during their pregnancy, after controlling for differences between the groups.

In comparison to women with normal blood pressure during pregnancy, women with pregnancy-related hypertension tended to be slightly younger and overweight or obese before pregnancy. In addition, they were more likely to have had one or more children previously and to gain excess weight and develop gestational diabetes during their pregnancy.

"Women who develop hypertension, preeclampsia, or eclampsia in pregnancy should discuss monitoring their blood pressure after delivery with their physicians," added Black. "Further research is needed to determine whether early postpartum blood pressure screening and improved follow-up and treatment of women with pregnancy-related hypertensive disorders may prevent future cardiovascular disease."

The study highlights the importance of monitoring and controlling blood pressure not only during pregnancy, but after delivery as well.

Researchers examined the electronic health records of 5,960 women who had prenatal care and delivered a baby at the Kaiser Permanente Southern California Bellflower Medical Center between 2005 and 2010. Women with pre-pregnancy high blood pressure were excluded from the analysis.