

New research recommends treating elevated blood pressure during pregnancy

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Throughout her career in Canada and the UK, Dr. Laura Magee has taken a restrained approach to use of blood pressure-lowering medication in her pregnant patients, fearing that lowering pressure could reduce the flow of blood and vital nutrients to their babies.

But Magee, a [researcher](#) at the Child & Family Research Institute (CFRI) and the University of British Columbia (UBC), and a physician at BC Women's Hospital and Health Centre, an agency of the Provincial Health Services Authority (PHSA), has up-ended her own beliefs with an international study being published today in the *New England Journal of Medicine*.

The 15-country study shows that treating a woman's elevated [blood pressure](#) during [pregnancy](#) is safer for her, and safe for her baby. As a result of these findings, Magee and her collaborators recommend normalizing blood pressure in pregnant [women](#).

"Before this study, I was a 'less tight' controller," Magee says. "I was hoping that this approach would be better for the baby, without increasing risks for the mother. However, I was wrong. 'Less tight' control, which means allowing blood pressure to be mildly to moderately elevated in pregnancy, is not better for the baby. It's actually harmful to the mother, who will more often experience levels of blood pressure that increase the risk of stroke. As a responsible maternity care provider, I can no longer justify a 'less tight' approach to blood pressure control."

The study, which tracked the health of 987 women and their newborns at 94 sites around the world, addresses an age-old belief that reducing elevated blood pressure during pregnancy might lead to reduced growth in the womb and worse health at birth.

But normalizing a pregnant women's elevated blood pressure did not result in poorer outcomes for babies before or after birth. At the same time, allowing the mother's blood pressure to be mildly to moderately elevated in pregnancy led to more episodes of dangerously elevated blood pressure that increase the risk of stroke and death for the mother during pregnancy.

About the study:

- The CHIPS Trial (Control of Hypertension in Pregnancy Study) was designed to study the impact of either 'less tight' or 'tight' control of high blood pressure during pregnancy on outcomes for the baby and for the mother.
- 987 women participated between 2009 and 2012 at 94 study sites in 15 countries.
- Women participating were between 14 and 33 weeks pregnant. They were randomly assigned to one of two groups. A group of 497 women had 'less tight' control with a target diastolic blood pressure of 100 mmHg, while the second group of 490 women had 'tight' control with a target diastolic blood pressure of 85 mmHg.
- Most of the women in both groups received blood pressure medication at some point in the trial (77 per cent in the 'less tight' group and 94 per cent in the 'tight' control group).
- The researchers found that the number of babies who died or were admitted for prolonged newborn intensive care was similar between the two blood pressure control groups. Fetal growth was also similar.

- The study was funded by the Canadian Institutes of Health Research.

Quick facts:

- Up to 10 per cent of pregnant women worldwide suffer from hypertension.
- All women with hypertension in pregnancy are at increased risk of poor outcomes for themselves and for their [babies](#). These risks are further increased when women have hypertension before 34 weeks of pregnancy.
- Dr. Magee and study co-author Dr. Peter von Dadelszen received the prestigious Chesley Award at the 2014 World Congress of the International Society for Study of Hypertension in Pregnancy.

Provided by Child & Family Research Institute

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