

Severe pre-eclampsia often leads to undetected high blood pressure after pregnancy

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Lingering hypertension is common and may go unnoticed among women who have severe pre-eclampsia during pregnancy, according to new research in the American Heart Association's journal *Hypertension*.

Pre-eclampsia, which is when a woman develops hypertension and elevated protein in the urine during pregnancy, occurs in three to five percent of pregnancies in the developed world. Recent studies have shown that [women](#) with pre-eclampsia are more likely than women with normal blood [pressure](#) during pregnancy to have high blood pressure post-pregnancy.

Women with severe pre-eclampsia can be seven times more susceptible to develop future cardiovascular disease compared to women with a normal blood pressure during pregnancy, according to study author Laura Benschop, M.D., a researcher in obstetrics and gynecology at Erasmus Medical Center, Rotterdam, the Netherlands.

"The problem is high blood pressure after pregnancy often goes unnoticed because many of these women have normal blood pressure readings in the doctor's office," Benschop said. "We aimed to determine how common it is for women who have pre-eclampsia to have high blood pressure in the year after pregnancy, by looking at more than just their blood pressure readings in the doctor's office."

Benschop and colleagues studied 200 women who during their pregnancies were diagnosed with severe pre-eclampsia, defined by such criteria as a [systolic blood pressure](#) of 160 mmHg or higher and/or [diastolic blood pressure](#) of 110 mmHg or higher. They followed the women for one year after their pregnancies, monitoring blood pressure during the day and night and taking blood pressure readings in the clinic.

They found:

- More than 41 percent of the women in the study had high blood pressure in the year after pregnancy.
- The most common type of hypertension detected (17.5 percent) was masked hypertension, which is [normal blood pressure](#) in the doctor's office, but high readings outside of the office; followed by sustained hypertension (14.5 percent); then, [white coat hypertension](#) (9.5 percent), which occurs when people have higher [blood pressure readings](#) at the doctor's office than outside the clinic setting.
- If the ambulatory readings hadn't been taken and only in-clinic readings were used, doctors would have missed 56 percent of the women with high blood pressure.
- Forty-six percent of the women studied had an insufficient decrease in blood pressure from daytime to nighttime, which is unhealthy.
- Night-time hypertension, which increases the risk of heart disease, stroke and death, affected 42.5 percent of women in the study.

"Our findings suggest women who have high blood pressure during pregnancy should continue to monitor their blood pressure long after they've delivered their babies. It's not only important to monitor blood pressure in the doctor's office, but also at different times of the day and night, at home," Benschop said. "We've shown here that high blood

pressure comes in many forms after pregnancy. Women who know their numbers can take the proper steps to lower their blood pressure and avoid the health consequences of high blood pressure later in life."

This study has limitations, including that the findings might not be applicable across races and income levels. The women in this study were predominately highly educated and Caucasian.

According to new hypertension treatment guidelines recently released by the American College of Cardiology/American Heart Association Task Force on Clinical Practice Guidelines, [high blood pressure](#) is now defined as readings of 130 mm Hg and higher for the systolic [blood pressure](#) measurement, or readings of 80 and higher for the diastolic measurement. That is a change from the old definition of 140/90 and higher, reflecting complications that can occur at those lower numbers.

More information: *Hypertension* (2018). [DOI: 10.1161/HYPERTENSIONAHA.117.10338](#)

Provided by American Heart Association

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