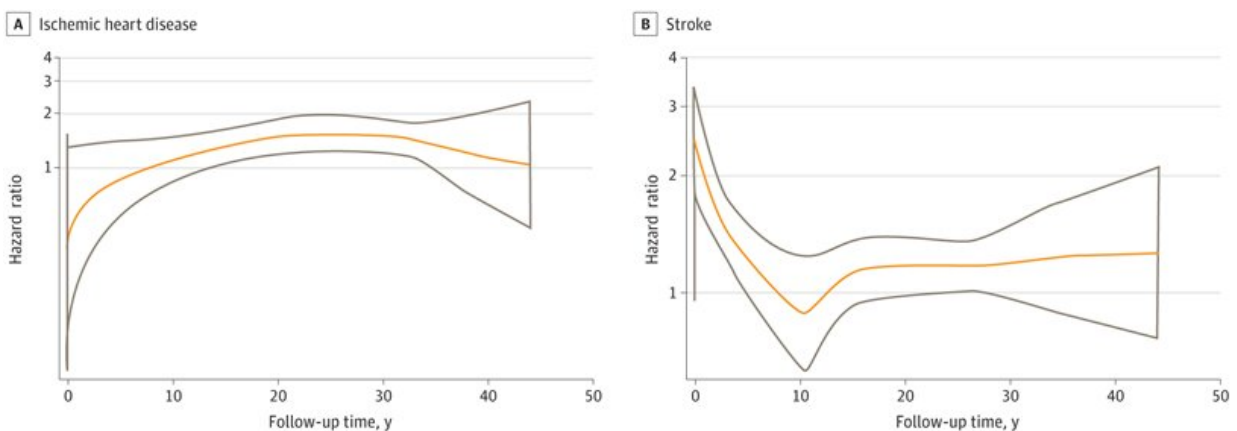


Babies born to mothers with preeclampsia found to be at increased risk of stroke and heart disease later in life

November 16 2022, by Bob Yirka



Adjusted hazard ratios (hrs) for ischemic heart disease and stroke from flexible parametric survival models. Hazard ratios (orange lines) and 95% CIs (gray lines) for ischemic heart disease (A) and stroke (B) in offspring according to maternal preeclampsia. A spline with 5 degrees of freedom (4 intermediate knots and 2 knots at each boundary, placed at quintiles of the distribution of events) was used for the baseline rate, and a spline with 3 degrees of freedom was used for the time-varying effect. Analyses were adjusted for offspring calendar year of birth; offspring sex; and maternal parity, age, educational level, marital status, and diabetes status before childbirth. Credit: *JAMA Network Open* (2022). DOI: 10.1001/jamanetworkopen.2022.42064

A team of researchers affiliated with several institutions in Sweden,

Finland and Denmark has found evidence that suggests babies born to mothers with preeclampsia have an increased risk of a stroke and/or heart disease later in life.

In their paper published in *JAMA Network Open*, the group describes studying millions of births in Denmark, Finland, and Sweden from the 1970s and 1980s and following the health patterns of the [babies](#) as they aged.

Preeclampsia is a condition involving blood pressure elevation and heightened levels of proteins in urine that can damage kidneys and sometimes other organs of pregnant women. Preeclampsia tends to occur later in pregnancy, though it can sometimes happen earlier. Preeclampsia has been found to stymie fetal growth if not properly treated by causing problems in the arteries that carry blood in the placenta. In this new effort, the researchers have found that it can also lead to other [health problems](#) for the baby later in life.

The work involved obtaining and analyzing the [medical records](#) of 8.5 million babies born in the 1970s and 1980s and tracking instances of ischemic [heart disease](#) (IHD) or stroke in those babies for 40 years after they were born.

They found that babies born to mothers experiencing preeclampsia were 33% more likely to develop IHD in later life than babies born to mothers without the condition. They also found a 34% increased risk of stroke. The researchers also found a small increase in risk for stroke in siblings of babies born to mothers with preeclampsia.

The researchers suggest the large sample size ensures accuracy of the results and also allowed them to evaluate the role of preterm babies in increased risk of heart disease later on in life. They note also that theirs is the first study to find a link between babies born to mothers with

preeclampsia and an increased risk of heart disease and/or stroke later on in life.

The researchers note that the risk associations for preeclampsia were more notable in [mothers](#) who developed the condition later in their pregnancies than for those who developed it early.

More information: Fen Yang et al, Association of Maternal Preeclampsia With Offspring Risks of Ischemic Heart Disease and Stroke in Nordic Countries, *JAMA Network Open* (2022). [DOI: 10.1001/jamanetworkopen.2022.42064](#)

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