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## Delayed pregnancy increases heart health risks for mums and sons



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New findings by University of Alberta researchers shed more light on cardiovascular health risks associated with delayed pregnancy. Blood vessel function declines with advanced maternal age, with male offspring at higher risk of disease, according to the findings presented at the American Physiological Society's (APS) Cardiovascular, Renal and Metabolic Diseases: Sex-Specific Implications for Physiology conference in Knoxville, Tenn.

Previous studies have found that advanced maternal age – 35 or older during pregnancy – increases the risk of impaired blood vessel function and reduced blood flow to the placenta. These issues jeopardise the growth and overall health of the unborn child and may contribute to heart disease later in the pregnant woman's life.

In the current study, researchers grouped a rat model of advanced maternal age according to pregnancy status, including "never pregnant," "postpartum" and "pregnancy loss." The researchers found the pregnancy loss group had less widening of the blood vessels (vasodilation) compared to the groups that were never pregnant or had recently delivered. In some cases, less vasodilation may lead to decreased vascular health. Additionally, the postpartum group had reduced vasodilation in the arteries of the intestines.

"These data demonstrate mechanisms which may lead to worsened outcomes at an advanced maternal age, including early pregnancy termination, and later life cardiovascular dysfunction," wrote Sandra Davidge, PhD, executive director of the Women and Children's Health Research Institute at the University of Alberta (Canada), with co-authors.

The study findings also highlighted sex-specific differences in health risks of the older rats' offspring. Males born to the postpartum group had impaired function of the blood vessel lining and cardiac risk factors associated with interrupted blood flow. The female offspring did not show the same risk factors.

"Given the increasing trend towards delaying pregnancy, our findings have significant population and healthcare implications and further illustrate pregnancy as a window of opportunity to assess cardiovascular health," the authors wrote.

Source: [American Physiological Society](#)

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