

Pregnancy complications linked to heightened heart disease risk in young adult offspring

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Complications of pregnancy, such as high blood pressure and infections, are linked to a heightened risk of early coronary heart disease in the young adult offspring, finds research published in the online journal *Heart Asia*.

The findings may be particularly relevant for developing nations, where the population is in transition and new cases of both pregnancy complications and [heart disease](#) are high, suggest the researchers.

More than 600 million people live in South East Asia, most of whom are under the age of 65. But rates of premature deaths attributable to non-communicable diseases are high, with one in three occurring before the age of 60.

To find out if complications of pregnancy might be associated with the risk of early [coronary heart disease](#), the researchers compared 153 patients with [acute coronary syndrome](#), which includes [heart](#) attack and angina, with the same number of healthy people matched for age and sex.

The heart patients had been diagnosed before the age of 55 (average age 47), and admitted to one cardiac centre in eastern Indonesia.

Detailed information was collected from both groups on background

social and economic factors, current lifestyle, [cardiovascular risk factors](#), and parents' history of heart disease, and this was combined with the results of a physical examination and relevant lab tests.

Maternal medical history included complications of pregnancy—specifically, [high blood pressure](#); premature birth; and any respiratory, gut, genitourinary, malarial/dengue fever, measles, chickenpox and unspecified infections which had lasted for at least three days and/or had required admission to hospital.

Patients with premature heart disease were more likely to have relevant risk factors than their healthy counterparts. These included high blood pressure and/or diabetes, eating an unhealthy diet, and smoking.

But their mothers were more likely to have experienced [pregnancy complications](#): 30 of their mothers (just under one in five of the whole group) had done so compared with 11 (just over 7%) in the healthy group.

When all the data were analysed, those whose mothers had experienced a complication of pregnancy were almost three times as likely to develop early coronary artery heart disease as those whose mothers had had a problem-free pregnancy.

The findings held true, irrespective of potentially influential [risk factors](#), such as lifestyle and unfavourable lab test results.

This is an observational study so no firm conclusions can be drawn about cause and effect. Nevertheless, the researchers suggest that maternal ill health during pregnancy might compromise fetal health by disrupting normal physiological processes, potentially leaving the developing baby vulnerable to subsequent heart disease.

And they say their findings point to the need to ensure optimal health and nutrition of a mum-to-be throughout her pregnancy as this might help stave off or curb the risk of early heart disease in her children. This includes prompt and appropriate treatment of any illness and preventive healthcare, such as vaccination, they say.

More information: Pregnancy-related conditions and premature coronary heart disease in adult offspring, [DOI: 10.1136/heartasia-2017-010896](https://doi.org/10.1136/heartasia-2017-010896)

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