

Stress during pregnancy may raise heart defect risk for baby

25 March 2013, by Randy Dotinga, Healthday Reporter



Large Danish study looked at women who had lost a close relative while expecting.

(HealthDay)—Stress in mothers before and during pregnancy may boost the risk of congenital heart defects in their children, more new evidence suggests. But the findings aren't conclusive, and the effect—if it exists—appears to be small.

Still, "there are several studies now that show an association," said Dr. Edward McCabe, [senior vice president](#) and medical director of the March of Dimes, who is familiar with the results of the large new study. "It suggests there needs to be continued investigation of this."

McCabe said he's not aware of any other research linking stress in mothers to a specific kind of birth defect.

[Congenital heart defects](#), among the most common kinds of birth defect, include conditions such as holes in the heart and other kinds of problems. Most cases aren't fatal, McCabe said, and physicians can repair some kinds of problems with surgery. In other cases, the defects don't need to be fixed.

The new study follows up on previous research linking stress to this form of birth defect.

The researchers looked at nearly 1.8 million children born in Denmark from 1978 to 2008 and

tried to find out if congenital [heart defects](#) were more common in kids born to a specific group of about 45,000 [women](#). These were women who had lost a parent, sibling, child or partner between the approximate time of conception and delivery.

Women in that group were slightly more likely than the other women to give birth to a child with a congenital [birth defect](#), researchers found. Study co-author Dr. Jorn Olsen, professor and chairman of the department of epidemiology at the School of Public Health at the University of California, Los Angeles, said the findings take into account the possibility that congenital heart defects may run in families and have killed some of the relatives who died.

Why might stress in a mother cause birth defects? Animal studies have shown that stress during the development of a fetus could affect [heart development](#), Olsen said.

It's also possible, he said, that stress could lead women to do things that are risky to their unborn children, such as changing to a less healthy diet. McCabe said another possibility is that stress alters the DNA of the child in the womb.

In the big picture, Olsen said, "this and other studies tell us to take care of pregnant women who experience severe stressful events shortly before or while they're pregnant."

For his part, McCabe said it's important for pregnant women under stress to talk to their physicians about quitting smoking, which they may increase because they're anxious. "We can't modify whether stress is going to happen in our lives," he said, "but we can modify certain effects of that stress."

The study appeared online March 25 and in the April print issue of the journal *Pediatrics*. Although it showed an association between maternal [stress](#)

and risk of congenital heart defects, it did not establish a cause-and-effect relationship.

More information: For more about [congenital heart defects](#), try the U.S. National Library of Medicine.

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