

Association between birth of an infant with major congenital anomalies and subsequent risk of death

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Credit: Photo by Chris Meyer, Indiana University

In Denmark, having a child with a major congenital anomaly was associated with a small but statistically significant increased risk of death in the mother compared with women without an affected child, according to a study appearing in the December 20 issue of *JAMA*. A major congenital anomaly is a structural change (such as cleft palate) that has significant medical, social or cosmetic consequences for the affected individual; this type of anomaly typically requires medical intervention.

Major structural or genetic congenital anomalies affect approximately 2

percent to 5 percent of all births in the United States and Europe. Mothers of children born with major congenital anomalies face serious challenges such as high financial pressures, as well as the burden of providing care to a child with complex needs within the home setting, which can impair a mother's health. Little is known about the long-term health consequences for the mother.

Eyal Cohen, M.D., M.Sc., of the Hospital for Sick Children, University of Toronto, Toronto, and colleagues assessed whether the birth of an infant with a major [congenital anomaly](#) was subsequently associated with an [increased risk](#) of death of the infant's mother. The population-based study (n = 455,250 women) used individual-level linked Danish registry data for mothers who gave birth to an infant with a major congenital anomaly between 1979 and 2010, with follow-up until December 31, 2014. A comparison group was constructed by randomly sampling, for each mother with an affected infant, up to 10 mothers matched on maternal age, parity (the number of children a woman has given birth to), and year of infant's birth.

Mothers in both groups were an average age of 29 years at delivery. After a median follow-up of 21 years, there were 1,275 deaths (1.60 per 1,000 person-years) among 41,508 mothers of a child with a major congenital anomaly vs 10,112 deaths (1.27 per 1,000 person-years) among 413,742 mothers in the comparison group. Mothers with affected infants were more likely to die of cardiovascular disease, respiratory disease, and other natural causes.

"The birth of a child with major congenital anomalies was associated with a small increased risk of death of [mothers](#). This elevated risk was noted both during the first 10 years after the child's [birth](#), when the mother was likely caring for a dependent [child](#) with substantial health needs, and after longer follow-up. No single cause of death explained this association," the authors write.

The researchers note that the clinical importance of this association is uncertain.

More information: *JAMA*, [DOI: 10.1001/jama.2016.18425](https://doi.org/10.1001/jama.2016.18425)

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