

# Better maternal diet linked to lower risk of heart abnormalities in babies at birth

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A relatively healthy diet before pregnancy is linked to a lower rate of certain heart abnormalities in babies at birth, finds research published in the *Archives of Disease in Childhood* (Fetal & Neonatal Edition).

Congenital [heart defects](#) are common, costly, and affect around 1% of newborns in the USA. Around one in four affected children will die in infancy as a result. So far, doctors have few preventive options at their fingertips.

Some studies suggest that multivitamin supplements might lower the risk while others suggest that better diet quality might make a difference to the rate of [heart abnormalities](#) at birth.

In a bid to find out about the potential role of diet, the researchers quizzed around 19,000 women about the quantity and quality of their diet in the year leading up to their [pregnancy](#).

The women were all part of the National Birth Defects Prevention Study. Half of them had given birth to healthy babies, and half had had [babies](#) with major heart abnormalities at birth between 1997 and 2009.

Diet quality was assessed, using two validated scoring systems: the Mediterranean Diet Score; and the Diet Quality Index for Pregnancy (DQI-P).

Mums in the top 25% (quartile) of diet quality, as assessed by the DQI-P, had a significantly lower risk of having a baby with certain heart defects than those in the bottom 25%.

Better diet was associated with a 37% lower risk of tetralogy of Fallot and a 23% lower risk of atrial septal defects.

Atrial septal defects refer to holes in the wall of the septum, which divides the upper chambers (atria)

of the heart. Tetralogy of Fallot is a complex abnormality which can lead to dangerously low oxygen levels in the blood going to the rest of the body.

This is an observational study so no definitive conclusions about cause and effect can be drawn, but similar associations have been found for diet before pregnancy and some other [birth](#) defects, including cleft palate and neural tube defects, note the researchers.

And they conclude that a reduced risk of some [congenital heart defects](#) may be an added bonus of eating a healthier diet before pregnancy, which reinforces current dietary recommendations for women wanting to get pregnant.

**More information:** Lower rate of selected congenital heart defects with better maternal diet quality: a population based study, *Archives of Disease in Childhood* (Fetal & Neonatal Edition) [DOI: 10.1136/archdischild-2014-308013](https://doi.org/10.1136/archdischild-2014-308013)

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