

Don't block folic acid in early pregnancy

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Using medication that reduces or blocks the actions of folic acid during the first trimester of pregnancy (weeks 1-12), increases the risk that the growing baby will develop abnormalities. This conclusion was reached by a team of Epidemiologists, Paediatricians, Clinical Pharmacologists, Obstetricians and Gynaecologists who examined birth and abortion data collected in Israel between 1998 and 2007.

The study drew information from 84,832 babies born at Soroka Medical Center, in Beer-Sheva, Israel. It was carried out as part of the PhD dissertation of Mgr. Ilan Matok, supervised by principal investigators Dr. Amalia Levy and Prof. Rafael Gorodischer from Ben-Gurion University of the Negev in Israel, in collaboration with the Division of Clinical Pharmacology, Hospital for Sick Children in Toronto, Canada (the BeMORE collaboration).

"After studying the data we concluded that first trimester exposure to folic acid antagonists is associated with increased risk for neural tube, cardiovascular and urinary tract defects," says paediatrician and clinical pharmacologist Rafael Gorodischer.

Healthcare professionals now encourage women to take folic acid supplements or eat food fortified with folic acid if they are planning to get pregnant as well as during early [pregnancy](#), because there is clear evidence that this reduces the risk of any resulting baby having neural tube defects and possibly other birth defects (congenital malformations).

The team considered the effects of two groups of medications on

pregnancy. Each group consists of drugs that prevent folic acid working in the body. One group (dihydrofolate reductase inhibitors), prevents folate being converted into its active metabolites and includes trimethoprim, sulfasalazine and methotrexate. The other medications are known to lower serum and tissue concentrations of folate by various mechanisms, and include antiepileptics (carbamazepine, phenytoin, lamotrigine, primidone, valproic acid and phenobarbital), and cholestyramine.

"The study shows that exposure to [folic acid](#) antagonists in the first trimester of pregnancy, more than doubled the risk of [congenital malformations](#) in the fetus, and that [neural tube defects](#), such as spina bifida and malformations of the brain, are increased by more than six fold after exposure to these antagonists," said epidemiologist Dr. Amalia Levy.

"Clinicians should try to avoid the use of these drugs whenever possible in women contemplating pregnancy," concluded Gorodischer.

Source: Wiley ([news](#) : [web](#))

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