

Study links folic acid supplements to asthma

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A University of Adelaide study may have shed light on the rise in childhood asthma in developed countries like Australia in recent decades.

Researchers from the University's Robinson Institute have identified a link between folic acid supplements taken in late pregnancy and allergic [asthma](#) in [children](#) aged between 3 and 5 years, suggesting that the timing of supplementation in pregnancy is important.

Associate Professor Michael Davies says that folic acid supplements - recommended for pregnant women to prevent birth defects - appear to have "additional and unexpected" consequences in recent studies in mice and infants.

"In our study, supplemental folic acid in late pregnancy was associated with an increased risk of asthma in children, but there was no evidence to suggest any adverse effects if supplements were taken in [early pregnancy](#)."

The University of Adelaide findings have been published in the [American Journal of Epidemiology](#).

The study involved more than 500 women whose maternal diet and supplements were assessed twice during their pregnancy, with follow-up on their child's asthma status at 3.5 years and 5.5 years. Asthma was reported in 11.6% of children at 3.5 years and 11.8% of children at 5.5 years. Nearly a third of these children reported persistent asthma.

Current public health guidelines recommend that women consume a supplemental dose of 400 micrograms of folic acid per day in the month preceding and during the first trimester of pregnancy to reduce the risk of neural tube defects in children.

"Our study supports these guidelines, as we found no increased risk of asthma if folic acid supplements were taken in pre or early pregnancy," Associate Professor Davies says. However, these guidelines may need to be expanded to include recommendations about avoiding use of high dose supplemental folic acid in late pregnancy."

He says their study found no evidence to link asthma with dietary folate, which is found in green, leafy vegetables, certain fruits and nuts.

Nearly half of all mothers in the study took a folic acid supplement pre-pregnancy and 56% met the required daily dosage of 400 micrograms in early pregnancy.

"These findings show there is a potentially important critical period during which [folic acid](#) supplement dosages may be manipulated to optimise their neuro-protective effects while not increasing the risk of asthma," Associate Professor Davies says.

Source: University of Adelaide ([news](#) : [web](#))

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