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Fish oil supplements during pregnancy show promise for asthma prevention



APStock Fish oil capsules

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Fatty acids found in fish oil taken during pregnancy could help prevent asthma among children — but experts caution more research is needed before expectant mothers pop the supplement.

You'll want to know: Researchers randomly assigned 736 women who were six months pregnant to receive either a fish oil capsule or a placebo pill each day. They followed the women's children for three years after birth. Children of the treatment group had a 30 percent lower risk of persistent wheeze or asthma than the offspring of the placebo group, according to results published Wednesday in the *New England Journal of Medicine*. Kids born to mothers who had received the fish oil supplement also had a reduced risk of lower respiratory tract infections. The treatment didn't seem to have any effect on eczema or allergy risk.

Why it matters: Asthma prevalence in the United States has risen in recent years — 17.7 million adults and 6.3 million children in currently have asthma, according to the Centers for Disease Control and Prevention. Nearly half of children and 44 percent of adults with the condition have suffered an asthma attack in the past year.

The nitty gritty: The treatment capsules contained two fatty acids, eicosapentaenoic acid (EPA) and docosahexaenoic acid (DHA). Both are omega-3 fatty acids that are found in cold-water fish such as salmon and are commonly used in fish oil supplements. Earlier observational studies have suggested there might be a connection between a diet that's low in fatty acids during pregnancy and an increased risk of asthma among children.

“We did an assessment of their genetics and an assessment of their baseline blood level of EPA and DHA,” said Dr. Hans Bisgaard, the author of the new study and director of the Copenhagen Prospective Studies on Asthma in Childhood.

The treatment was most effective in two groups — mothers who had a low dietary intake of EPA and DHA and mothers with a specific genetic variant tied to a decreased ability to metabolize EPA and DHA from food.

“It really does point toward the possibility in the future, if that could be replicated, that you could screen pregnant women and other populations to see who would be most likely to benefit,” said Dr. Christopher Ramsden, a scientist at the National Institutes of Health who penned an editorial about the new paper.

But keep in mind: The dose tested in the study was quite high — up to 20 times higher than the average daily intake of EPA and DHA from food.

“They are natural compounds, but it's a concentrated version of them,” said Ramsden. “I think it should be examined further if you're recommending this to a large part of the population.”

While there weren't any side effects noted in the study, more follow-up is needed to make sure that dose doesn't have an effect on long-term behavior, cognition, or other health outcomes. It's possible that a lower dose would achieve the same effect; more research would need to be done on a lower-dose treatment. It's also possible it might be more effective to start the supplement earlier in pregnancy.

“I don't know that you'd necessarily want to jump in to recommending these to pregnant women,” Ramsden said.

The bottom line: The results show a promising potential way to prevent some cases of asthma with a simple supplement, but more work is needed to replicate the results, pinpoint the right dose, and make sure the treatment wouldn't lead to any long-term problems.

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