

New research finds omega-3 fatty acids reduce the risk of premature birth

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A new *Cochrane Review* published today has found that increasing the intake of omega-3 long-chain polyunsaturated fatty acids (LCPUFA) during pregnancy reduces the risk of premature births.

Premature [birth](#) is the leading cause of death for children under 5 years old worldwide, accounting for close to one million deaths annually. Premature babies are at higher risk of a range of long-term conditions including visual impairment, developmental delay and learning difficulties.

"We know premature birth is a critical global [health](#) issue, with an estimated 15 million babies born too early each year," explains Associate Professor Philippa Middleton from Cochrane Pregnancy and Childbirth and the South Australian Health and Medical Research Institute (SAHMRI). "While the length of most pregnancies is between 38 and 42 weeks, [premature babies](#) are those born before the 37-week mark—and the earlier a baby is born, the greater the risk of death or poor health."

Associate Professor Middleton and a team of Cochrane researchers have been looking closely

at long-chain omega-3 fats and their role in reducing the risk of premature births—particularly docosahexaenoic acid (DHA) and eicosapentaenoic acid (EPA) found in fatty fish and fish oil supplements. They looked at 70 randomised trials and found that for pregnant women, increasing the daily intake of long-chain omega-3s:

- lowers the risk of having a premature baby (less than 37 weeks) by 11% (from 134 per 1000 to 119 per 1000 births)
- lowers the risk of having an early premature baby (less than 34 weeks) by 42% (from 46 per 1000 to 27 per 1000 births)
- reduces the risk of having a small baby (less than 2500g) by 10%

"There are not many options for preventing premature birth, so these new findings are very important for pregnant women, [babies](#) and the health professionals who care for them," Associate Professor Middleton says. "We don't yet fully understand the causes of premature labour, so predicting and preventing early birth has always been a challenge. This is one of the reasons omega-3 supplementation in [pregnancy](#) is of such great interest to researchers around the world."

The *Cochrane review* published today was first undertaken back in 2006, and concluded there wasn't enough evidence to support the routine use of omega-3 fatty acid supplements during pregnancy. Over a decade on, this updated review concludes that there's high quality evidence for omega-3 supplementation being an effective strategy for preventing preterm birth.

"Many [pregnant women](#) in the UK are already taking omega-3 supplements by personal choice rather than as a result of advice from [health professionals](#)," says Associate Professor Middleton. "It's worth noting though that many supplements currently on the market don't contain the optimal dose or type of omega-3 for preventing [premature](#)

[birth](#). Our review found the optimum dose was a daily supplement containing between 500 and 1000 milligrams (mg) of long-chain omega-3 fats (containing at least 500mg of DHA) starting at 12 weeks of pregnancy."

"Ultimately, we hope this review will make a real contribution to the evidence base we need to reduce premature births, which continue to be one of the most pressing and intractable maternal and child health problems in every country around the world."

More information: Middleton P, Gomersall JC, Gould JF, Shepherd E, Olsen SF, Makrides M. Omega-3 fatty acid addition during pregnancy. *Cochrane Database of Systematic Reviews* 2018, Issue 11. Art. No.: CD003402. [DOI: 10.1002/14651858.CD003402.pub3](#)

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