



# Information for Health Care Professionals

## Omega-3 long-chain fats to prevent preterm birth Findings from the 2018 Cochrane Systematic Review

11% reduction in births before 37 weeks of gestation  
42% reduction in births before 34 weeks of gestation

In an updated Cochrane systematic review, scientists from the South Australian Health and Medical Research Institute (SAHMRI) have combined all published randomised controlled trials investigating the effect of omega-3 long-chain fats during pregnancy on outcomes for mothers and babies.

Omega-3 long-chain fats are those most commonly found in fish and fish oils and are known as docosahexaenoic acid (DHA) and eicosapentaenoic acid (EPA).

### Key Results

The review showed high-quality evidence that supplementation with omega-3 long-chain fats during pregnancy:

- Lowers the risk of having a preterm baby before 37 weeks by **11%** (from 134 per 1000 to 119 per 1000 births).
- Lowers the risk of having an early preterm baby before 34 weeks by **42%** (from 46 per 1000 to 27 per 1000 births).



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- Reduces the risk of having a low birth weight baby below 2500g by **10%** (from 156 per 1000 to 140 per 1000 births).

**The daily dose associated with these benefits is 500 to 1000mg of DHA+EPA, where at least 500mg is from DHA.**

The review includes all trials of omega-3 fats in any form or dose during pregnancy (including as supplements, food, or advice to consume foods rich in DHA and EPA). However, most trials used supplements containing both DHA and EPA. The doses tested in many of the studies were difficult to achieve using diet alone.

Most of the trials were conducted in high-income countries (e.g. Australia, USA, England, The Netherlands, Denmark) and included women who were both at normal and high risk for poor pregnancy outcomes. Almost all women studied had singleton pregnancies.

A total of 70 randomised controlled trials, involving almost 20,000 women, were included in the review.

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## Practice Points

- Women with singleton pregnancies should be offered supplementation with omega-3 long-chain fats.
- Use a supplement with at least 500mg of DHA. The supplement does not need to contain more than 1000mg DHA+EPA. There appears to be no extra benefit of higher doses.
- Start supplementation from 12 weeks of pregnancy.
- There is no need to continue supplementation after the birth.
- Currently available omega-3 supplements that contain the doses suggested by the review cost approximately \$25 for a 60-day supply (about 40c per day).
- For vegetarians, supplements that contain algal oils rather than fish oils are a good option.
- Currently available prenatal vitamin and mineral supplements usually contain less than 200mg DHA+EPA so they are not adequate on their own.

