

Omega-3 Fats in Pregnancy and Breastfeeding

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What are omega-3 fatty acids?

Omega-3 fats are polyunsaturated fatty acids that are important for health and normal development. They are not produced in our bodies and must be obtained from the diet. The most important dietary omega-3 fatty acids are docosahexaenoic acid (DHA) and eicosapentaenoic acid (EPA). Fatty fish such as sardines, salmon, mackerel, herring and trout are the best dietary sources of these omega-3 fats. There are other dietary sources of omega-3 fats, but they do not contain enough omega-3 fat overall or do not provide any of the beneficial DHA and EPA.^{1,2}

Omega-3 fats containing DHA and EPA can also be obtained from oils and are available in supplement form. Fish oil is a concentrated and often purified form of these omega-3 fats derived from fish. Oils derived from algae are a vegetable source of these omega-3 fats and can be used by vegetarians as an alternative.² Although flaxseed oil and canola oil contain some omega-3 fats, they do not contain DHA and EPA.^{1,2,3}

Issues for pregnancy

Omega-3 fats are considered to have general health benefits and in particular may protect against heart disease, stroke and arthritis.³ Some pregnant women try to increase their omega-3 fat intake because several well publicised studies have found associations with omega-3 fat intake and increased intelligence in babies.⁴ However, a recent review of studies found no benefit of omega-3 supplementation in terms of IQ and development.⁵

In a recent review of published studies, it has been found that having adequate intake of omega-3 fats (specifically EPA and DHA) in pregnancy has been associated with lower rates of prematurity in pregnant women that are carrying one baby. Prematurity increases the risks for death, disability and poorer long-term outcomes for babies. Therefore omega-3 supplements are likely to reduce the risk of having a baby born prematurely in women with inadequate intake from their diet.^{3,5}

If a pregnant woman does not eat enough omega-3 fat from dietary sources alone it is recommended to consider omega-3 supplements, either from fish or algal sources. The recommended dosage of omega-3 supplementation in women who are likely to have inadequate nutritional intake of omega-3 fats is 1000mg per day in total. Supplementation is recommended from before 20 weeks of pregnancy and may be stopped at birth. It is possible to have a blood test to check omega-3 levels to guide the need for an omega-3 supplement. However, this is not routinely available.³

There is no demonstrated benefit to a pregnant woman or her baby in taking omega-3 supplements if her diet already contains adequate omega-3 fats. Some data suggests too much omega-3 fat may increase the risk of prematurity.³

Cod liver oil contains fish oil but because it also contains vitamin A, it should be avoided in pregnancy.

Mercury and fish

Although fish is the best source of omega-3 fats and other nutrients that are important for the health and development of an unborn baby, it is also a source of mercury (in the form of methylmercury). High levels of mercury in the diet can affect a baby's brain development. Because of this, there are specific recommendations regarding upper level of fish intake in pregnancy (as well as while planning pregnancy and breastfeeding). Recommendations depend on the type of fish. In general, the limit is two to three fish meals (150mg serve) per week in pregnancy for most types of fish. For further information see NSW Food Authority, Pregnancy - Mercury and fish, 2025 available at <http://www.foodauthority.nsw.gov.au/foodsafetyandyou/life-events-and-food/pregnancy/mercury-and-fish>

Fish oil omega-3 supplements are not a major source of mercury, but it is important to check that the supplement you take is low in mercury and other contaminants.^{2,6}

Breastfeeding

If you are breast feeding, your baby will receive omega-3 fats from you in your breast milk.⁷ The amount depends on your own intake of omega-3 fats from fish or other sources. Two to three serves per week of most fish are safe while breastfeeding. To safely include fish in your diet while you are breastfeeding, follow the same guidelines provided to pregnant women regarding mercury.⁶ It is also safe to supplement your diet with omega-3 fats from fish oil or algal sources while breast feeding.²

References

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