

Polyunsaturated Fatty Acids & Fetus Development

EPA and DHA are omega-3 fatty acids. They could only be obtained from diet. Fatty acids are major components of brain tissue. Long-chain polyunsaturated fatty acids, such as DHA, are among the most important fatty acids which are incorporated into the brain and retina, in particular the nerve membranes.^[1]

The most dramatic development of the nervous system occurs prenatally and early postnatally. Mothers are the sole source of nutrients for the fetus during development. Without adequate nutritional replenishment, mothers could be depleted of critical nutrients with adverse consequences for both mother and infant. Maternal and neonatal concentrations of DHA are associated with improved outcomes in early infancy, and favorable neurodevelopmental outcome and improved intelligence scores beyond early infancy.^[2]

Increased Demand for DHA during Pregnancy

Adequate intake of omega-3 fatty acids by the mother is very important to support the need for fetus brain, eyes and nerve while young infants rely on intake from milk. For mother who wishes to breastfeed, supplementation of omega-3 fatty acids could help boost the DHA and EPA concentration in the milk.^[3]

Many of the oily fish high in omega-3 are predators, and being higher in the food chain are therefore more likely to contain contaminants, such as mercury and polychlorinated biphenyls (PCBs). As an alternative, omega-3 fish oil sourced from wild ocean fish that live in the cold, clean and unpolluted water of the Pacific coast of Alaska is

rich in EPA and DHA. It can help maintain the health of the mother and the baby with the following benefits:

Benefits of Omega-3 for the Mother

•Relieve depressive symptoms

A study correlating DHA content in breast milk with postpartum depression revealed higher levels of depressive symptoms in women with low DHA levels when compared to women with higher levels.^[4]

•Promote joint health

Resolvins are compounds that are made by the human body from EPA and DHA. Resolvin D2 enhances the production of nitric oxide which prevents white blood cells from being attached to the joints.^[5] Hence, it helps in relieving pain and swelling in the joints.^[6]

•Promote cardiovascular health

Studies show that omega-3 fatty acids can assist in maintaining blood pressure, prevent lipid accumulate on the blood vessel and control lipid molecules in blood.^[7]

•Maintain healthy digestive system

Omega-3 is and essential fatty acids that can activate cell functions, support healthy cells and increase resistance. It helps to maintain a healthy digestive system.^[8]

•Anti-aging effects

Polyunsaturated fatty acids from fish oil help replenishing fats lost in the skin causing skin dryness or excessive flaking. It can nourish the skin and hair, improve skin elasticity and reduce wrinkles.^[9] Omega-3 fatty acids also relieve inflammation that may occur in the cells and help

to keep them healthy.^[7,10]

Benefits of Omega-3 for the Baby

•Increase gestation length and birth weight

Numerous observational studies have revealed a positive association between omega-3 and gestation length. Prenatal supplementation with omega-3 has been linked to a trend in increased birth weight.^[11]

•Improve neurodevelopment

Adequate maternal intake of omega-3 has been correlated with improved neonatal visual development, central nervous system functioning, and improved childhood cognitive ability and intelligence scores.^[12,13]

•Reduce risk of childhood allergic diseases

Numerous studies have positively associated higher omega-3 levels in cord blood with subsequent reduction in the development of childhood allergic diseases, such as asthma, autoimmune diseases, atopic dermatitis, and allergic rhinitis.^[14-16]

Recommended daily dose:

For adult, take 1 softgel capsule twice daily or as directed by physicians.

References:

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