

## Omega-3 Fatty Acids: Health Benefits Galore

### Maternal and Infant Health

Fish oil omega-3 fatty acids are essential for healthy fetal and infant development. During pregnancy, the developing baby obtains omega-3 fatty acids from the mother. After birth, the infant must obtain them from breast milk or formula supplemented with essential fatty acids.

In early human development, fish oil omega-3 fatty acids are beneficial for:

- **Healthy infant visual function.** The photoreceptor cells in the retina of the eye have large amounts of DHA, which is involved in visual function. Infants whose diets contain fish oil omega-3 fatty acids have improved visual scores on a number of measures of visual acuity when compared with infants not receiving them.
- **Improved infant neurodevelopment.** Several tests of motor skills, learning behavior, language development, and mental function in infants and children have shown that infants consuming fish oil omega-3 fatty acids from breast milk or supplemented formula have higher developmental measures than those not receiving them. In several studies, infants consuming omega-3s exhibited a more mature type of neurodevelopment than those of the same age who did not have omega-3 fatty acids. It is not certain whether the findings in infancy carry over into childhood and adulthood.
- **Reduced risk of premature and underweight births.** Consuming omega-3s – particularly DHA – in pregnancy, especially in the last trimester, reduces the risk of premature and underweight babies. Studies have shown that babies of mothers who consumed DHA in the last trimester were heavier than those of mothers not fed DHA. Gestation time is also prolonged and this reduces the risk of prematurity.
- **Important in pregnancy.** In the last three months of pregnancy, the fetus avidly takes up omega-3 fatty acids from the mother's circulation. These fatty acids are incorporated into brain, eye, and other tissues. Because the mother's diet and body stores are the only source of these essential nutrients, pregnant women are wise to consume fatty fish regularly.
- **Important in lactation.** In the first six months of life, infants depend on breast milk or infant formula for all or most of their nutrition. Nursing women can ensure their infants receive essential fatty acids by eating fatty fish regularly, at least once a week. These dietary omega-3s are transferred to breast milk, so the infant will obtain them.
- **Low birthweight and premature infants.** Underweight and “preemie” babies are at increased risk of receiving too little omega-3 fatty acids during gestation. When a baby is born early, it has less time to acquire these vital fatty acids from its mother. Thus, it is especially important for these infants to receive all essential fatty acids, including omega-3 fatty acids, to ensure healthy development. Human milk and fatty acid supplemented formula will supply the necessary omega-3s.

\* DHA: Docosahexaenoic acid, a long-chain omega-3 fatty acid found almost exclusively in fatty fish