KD Nutra®
Creating Health Solutions

Maternal & Fetal Nutrition Solutions

Supporting Health from Pregnancy Through Early Life

Maternal nutrition has evolved beyond the outdated concept of "eating for two." Today, it represents a sophisticated, science-driven approach to optimizing fetal development and supporting maternal recovery. As of 2026, the category has shifted toward **high-bioavailability, sustainable, and precision-formulated solutions**, with Omega-3 fatty acids – specifically DHA and EPA – at the forefront.

Modern prenatal care emphasizes high-density micronutrients and timing, focusing on the critical window from conception through the first 1,000 days. Among these, Omega-3 fatty acids stand out as essential structural components for fetal development and maternal well-being.

Supported by robust clinical evidence and **EFSA-approved health claims**, Omega-3 DHA plays a central role in early development:

- DHA maternal intake contributes to the normal brain development of the fetus and breastfed infants[2]
- DHA intake contributes to the normal visual development of infants up to 12 months of age[3]

This positions Omega-3 supplementation as one of the most clinically validated supplements in maternal and early life nutrition.

As the global leader in the Omega-3 industry, KD Nutra® delivers the best-in-class quality, nutrition expertise, rigorous regulatory compliance, and the **confidence** our partners rely on to bring safe, effective maternal nutrition solutions to market.

The Pillars of Maternal Nutrition

Women are especially worried about risks associated with adverse birth outcomes and defects during this life stage. To address these concerns, pregnant women look for a complete multivitamin supplement to cover their daily nutritional needs however, awareness of DHA's importance throughout the motherhood journey remains much lower – and many prenatal multivitamins may not provide the foundation each woman and her baby needs.

Pregnancy and lactation drive significant metabolic changes, increasing the intake for targeted nutrients that act as building blocks of fetal development and maternal health.

Core Nutritional Pillars:

- **Folate / Folic Acid** – Neural tube development
- **Iron & Vitamin B12** – Blood volume expansion and oxygen transport
- **Choline** – Brain structure and cognitive programming
- **Omega-3 PUFAs** (DHA & EPA) – Central nervous system development

These nutrients work synergistically to support both maternal resilience and optimal fetal outcomes[1].

Is your Prenatal Multivitamin COMPLETE?

1.María Camila Cortés-Albornoz et al, 2021. Maternal Nutrition and Neurodevelopment: A Scoping Review. doi: 10.3390/nu13103530 | N. Irvine et al, 2022 Jan 15. Prenatal Folate and Choline Levels and Brain and Cognitive Development in Children: A Critical Narrative Review. doi: 10.3390/nu14020364 | Eva F G Naninck et al, May 2019. The Importance of Maternal Folate Status for Brain Development and Function of Offspring. doi.org/10.1093

The Critical Role of Omega-3 Fatty Acids

Omega-3 fatty acids are essential polyunsaturated fats, with limited endogenous conversion to long-chain forms (EPA and DHA), making dietary or supplemental intake necessary.

Fetal Benefits

Support Healthy Development That Lasts a Lifetime

Nutritional insufficiencies can be challenging as the brain establishes pathways for learning and other higher order functions.

The development of brain structures and the visual system depend on having sufficient building blocks for growth.

- **Neurodevelopment:**
  DHA constitutes up to 90% of brain Omega-3 content and is critical for neuron formation and myelination.[9]
- **Visual Development:**
  DHA supports retinal structure and visual acuity[3]
- **Gestation Support:**
  clinical studies indicate that adequate intake is associated with reduced risk of early preterm birth[4,5]

Maternal Benefits

Support Wellbeing Before, During, and After Pregnancy

Omega-3 fatty acids are essential and can only be obtained from the diet. However, the standard Western diet is severely deficient in these critical nutrients.

During pregnancy, this deficiency can worsen, as the developing fetus relies on maternal Omega-3s for nervous system development.[6]

Following childbirth, DHA maternal intake can help rebuild DHA stores.

- **Emotional Well-being:**
  clinical studies indicate that Omega-3 EPA supplementation is a suitable method for recovery from mild depression during pregnancy with no complications for mothers and infants[7,8]

	Recommended Intake	Key Benefits
1 **Preconception**	≥250 mg DHA or EPA+DHA daily	Studies suggest that adequate DHA intake may help reduce the risk of preterm and early preterm birth, supporting regular omega-3 intake in women trying to conceive.[4]
2 **High-Risk Cases**	600–1,000 mg DHA or EPA+DHA daily	For women with low early-pregnancy DHA intake or status; studies suggest that it may helps reduce risk of preterm birth.[4,5]
3 **Pregnancy**	Extra 100–200 mg DHA daily (total 350–450 mg DHA or EPA+DHA)	Supports full-term pregnancy, fetal brain & eye development[2,3]; many prenatal supplements may fall short of updated recommendations
4 **Post-Pregnancy / Breastfeeding**	Maintain ≥250–300 mg DHA daily	DHA transferred via breastmilk; supports infant brain and visual development[2,3]; studies suggest that DHA may contribute to maternal recovery and well-being[7,8]

By offering stage-specific Omega-3 solutions throughout the motherhood journey, we enable partners to create products that support full-term pregnancies, foster healthy infant brain and visual development, and give mothers the confidence and reassurance they seek.

2.EFSA Health Claim: DHA maternal intake contributes to the normal brain development of the fetus and breastfed infants. The beneficial effect is obtained with a daily intake of 200 mg of DHA in addition to the recommended daily intake for omega-3 fatty acids for adults, i.e.: 250 mg DHA and EPA. **3.**EFSA Health Claim: DHA intake contributes to the normal visual development of infants up to 12 months of age. The beneficial effect is obtained with a daily intake of 100 mg of DHA. When the claim is used on follow-on formula, the food shall contain at least 0,3 % of the total fatty acids as DHA. **4.**Cetin I, et al. (2024). Omega-3 fatty acid supply in pregnancy for risk reduction of preterm and early preterm birth. 6(2):101251. **5.**Best KP, et al. (2022). ISSFAL statement number 7 – Omega-3 fatty acids during pregnancy to reduce preterm birth. PLEFA, 2022;186:102495. **6.**Lauritzen L, et al. DHA Effects in Brain Development and Function. Nutrients. 2016 Jan 4;8(1):6. doi: 10.3390/nu8010006. **7.**Maasumeh Kaviani, et al (2014). The Effect of Omega-3 Fatty Acid Supplementation on Maternal Depression during Pregnancy: A Double Blind Randomized Controlled Clinical Trial. **8.**Y. Rodriguez-Santana, et al (2017) Cytokine distribution in mothers and breastfed children after omega-3 LCPUFAs supplementation during the last trimester of pregnancy and the lactation period: A randomized, controlled trial. **9.** M J Weiser et al, 2016 Feb. Docosahexaenoic Acid and Cognition throughout the Lifespan. doi: 10.3390/nu8020099

Delivery Forms: Optimizing Performance

Omega-3 supplements are available in two primary delivery formats, each offering distinct advantages:

Triglyceride Form (TG / rTG)

- Natural molecular structure
- High bioavailability and efficient absorption
- Gentle on digestion – ideal for daily use

Ethyl Ester Form (EE)

- Enables higher DHA/EPA concentration
- Supports targeted, high-potency formulations
- Allows smaller capsule sizes – reducing pill burden

Both formats are clinically validated and effective in improving maternal Omega-3 status.

Sourcing & Safety – Setting the Gold Standard

Marine-derived Omega-3s continue to set the benchmark for maternal supplementation thanks to their superior quality and efficacy:

1. Direct Bioavailability
Pre-formed Omega-3 DHA and EPA are readily used by both mother and fetus, unlike plant-based ALA, which converts to DHA at rates below 5%.

2. Advanced Purification
Our marine oils undergo rigorous molecular distillation to eliminate:

- Heavy metals (e.g., mercury)
- PCBs
- Other environmental contaminants

This meticulous process ensures products meet or exceed the highest international standards, including IFOS and GOED, giving partners and consumers **confidence** in safety and purity.

Let's Build the Future of Maternal Nutrition

Partner with us to develop next-generation maternal health solutions grounded in science, safety, and performance, and give your customers the confidence they deserve.

KD Nutra®
Creating Health Solutions

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