

Pregnancy Support Protocol[†]

DEVELOPED IN COLLABORATION WITH OUR SCIENTIFIC AND MEDICAL ADVISORS



Pregnancy is a metabolically dynamic state requiring increased nutrient intake, physiologic adaptation and careful risk management.^{1,2} This protocol focuses on optimizing maternal nutrient status, metabolic stability and fetal development through targeted diet and lifestyle interventions.[‡]

CORE CLINICAL GOALS

1. **Support fetal development** (neurodevelopment, skeletal formation, immune programming)
2. **Support maternal nutrient stores during pregnancy**
3. **Promote metabolic stability** (maintain glucose homeostasis)
4. **Support microbiome diversity and gut integrity**
5. **Modulate immune response and oxidative stress**
6. **Optimize maternal mental health and stress resilience**

FOUNDATIONAL SUPPORT

In addition to a nutrient-dense diet and health-supportive lifestyle, consider the following foundational supplements to support a healthy pregnancy.[‡]

PRODUCT RECOMMENDATIONS	FEATURES	SUGGESTED USE
<u>PreNatal Nutrients</u> (Order Code: PRN21 / PRN26)	Multivitamin/mineral formula that provides essential vitamins, minerals and nutrients based on scientific recommendations for pregnancy and lactation [†]	2 capsules daily with a meal
<u>Magnesium Glycinate</u> (Order Code: MG1 / MG3 / MG9)	Supports the metabolism of carbohydrates, amino acids and fats for energy production [†] Supports cardiometabolic, neurocognitive and musculoskeletal health [†]	1-4 capsules daily, with food
<u>EPA/DHA Essentials</u> (Order Code: ED11 / ED19)	Promotes cardiovascular health [†]	1-2 softgels daily, with food
<u>DHA Ultimate</u> (Order Code: DHU1 / DHU6)	Supports neural and cognitive function** *Epidemiological studies indicate that a high intake of DHA is associated with healthy cognitive function in adults as well as infants born to mothers with a diet high in DHA ³	2 softgel capsules daily, with a meal
<u>PureGG</u> (Order Code: PGG6)	Shelf-stable; highly researched probiotic to support immune, G.I. and overall health [†]	1 capsule daily, with or between meals

[†]This statement has not been evaluated by the Food & Drug Administration. This product is not intended to diagnose, treat, cure or prevent any disease.



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ASSOCIATED SUPPORT

Associated support should be considered in addition to foundational support based upon lab results and/or symptoms. Retesting is recommended with extended use.

PRODUCT RECOMMENDATIONS	FEATURES	SUGGESTED USE
<u>OptiFerin-C</u> (Order Code: OF26)	An iron-based supplement formulated to support red blood cell function and energy production [†]	1 capsule, 1-3 times daily, with meals
<u>Poly-Prebiotic Powder</u> (Order Code: PPRP1)	A powdered blend of prebiotic fibers and polyphenols to support gastrointestinal, cellular and immune function by boosting bifidobacteria and microbiome diversity [†]	1 serving, 1-2 times daily, mixed with a beverage or into food
<u>Calcium (citrate)</u> (Order Code: CC1)	Highly absorbable chelate for bone health [†]	2 capsules, 1-3 times daily, with or between meals
<u>Choline (bitartrate)</u> (Order Code: CLB1)	Supports healthy methylation, cell function and neurotransmission [†]	1 capsule, 1-2 times daily, with meals
<u>Iodine (Potassium Iodide)</u> (Order Code: IO1)	Provides support for the thyroid gland [†]	1 capsule, 1-2 times daily, with meals
<u>Ginger Extract</u> (Order Code: GI1)	Supports digestive health [†]	1 capsule, 1-4 times daily, between meals
<u>L-Theanine</u> (Order Code: LTH1 / LTH6)	Promotes relaxation without causing drowsiness [†]	2 capsules, 1-3 times daily, between meals

NUTRITION & LIFESTYLE RECOMMENDATIONS

A nutrient-dense, whole-food dietary pattern supports fetal development while reducing the risk of common pregnancy concerns, including micronutrient status and changes to blood sugar homeostasis.^{1,4}

Foundational Dietary Pattern

Recommend a **whole-food, anti-inflammatory, nutrient-dense dietary pattern:**

- **High-quality protein:** ~0.8-1.0 g/kg per day (adjust per patient)
- **Healthy fats:** Emphasize omega-3s and monounsaturated fats
- **Fiber-rich carbohydrates:** Focus on low-glycemic, whole-food sources
- **Diverse plant intake:** Aim ≥ 25–35 plant foods/week for microbiome diversity

Clinical Rational

- Stable blood glucose supports fetal growth and reduces changes to glucose homeostasis⁵
- Fiber and polyphenols enhance microbial diversity and SCFA production^{6†}
- Adequate protein supports placental and fetal tissue development^{1†}

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Key Nutrient Priorities During Pregnancy (Food-First Approach)

Pregnancy increases requirements for several micronutrients critical to fetal development and maternal health. Prioritizing intake of key nutrients such as folate, iron, iodine, choline, calcium and omega-3 fatty acids is essential to reduce risk of micronutrient status-related concerns.^{1,4†}

NUTRIENT	CLINICAL ROLE [†]	FOOD SOURCES
Folate (5-MTHF)	Neural tube development	Leafy greens, lentils
Choline	Brain development, methylation	Eggs, liver
Iron	Maintain healthy iron levels, oxygen delivery	Red meat, lentils
DHA	Fetal brain/retinal development	Salmon, sardines
Iodine	Thyroid hormone support	Sea vegetables, iodized salt
Calcium	Bone development	Dairy, sardines, leafy greens
Magnesium	Muscle, sleep, glucose regulation	Nuts, seeds, legumes

Microbiome Support

Dietary factors influence maternal microbiome composition, which may impact metabolic and immune function during pregnancy. Increasing fiber and fermented food intake supports microbial diversity, supports SCFA production, enhances gut barrier integrity and influences maternal immune programming and the infant microbiome.^{6,7}

Include daily:

- **Fiber (25–35 g/day)**
- **Prebiotic foods:** onions, garlic, leeks, asparagus
- **Fermented foods** (if tolerated): yogurt, kefir, sauerkraut

Blood Sugar Regulation

Glycemic control is a key modifiable factor in pregnancy outcomes. Dietary patterns emphasizing whole foods and balanced macronutrient intake are associated with glucose homeostasis and insulin signaling, fetal growth regulation and maternal energy stability.⁵

Recommendation:

- Pair **protein + fat with all meals/snacks**
- Avoid isolated high-glycemic foods
- Consider **postprandial walking (10–15 min)**

Physical Activity

In healthy pregnancies without concerns, regular physical activity is safe and associated with improved maternal outcomes, including reduced risk of blood sugar changes, and improved functional capacity. Current guidance supports at least 150 minutes of moderate-intensity activity per week.^{8,9}

Physical Activity *(continued)*

Recommendation:

- **150 minutes/week moderate exercise** (walking, prenatal yoga, strength training)

Stress Management

Psychological and physiologic stress influence maternal metabolic and immune regulation. Incorporating daily stress-reduction strategies can help reduce maternal cortisol exposure and support overall maternal health and treatment adherence.^{2, 10} Stress impacts the HPA axis, cortisol levels, gut permeability and microbiome balance.

Daily recommendations:

- 5–10 min **breathwork or mindfulness**
- Prenatal yoga or gentle stretching
- Cognitive behavioral strategies as needed

Sleep Optimization

Sleep disturbances are common in pregnancy and are associated with adverse metabolic outcomes. Supporting adequate sleep duration and quality is an important component of care.¹¹

Targets:

- 7–9 hours/night
- Consistent sleep-wake timing

Support strategies:

- Magnesium-rich foods or supplementation (if indicated)
- Limit evening blue light
- Protein-rich evening snack if drop in blood sugar is suspected

Environmental Exposure Reduction

Exposure to environmental toxins during pregnancy has been associated with poor reproductive and developmental outcomes. Clinicians should counsel patients on practical strategies to reduce exposure where possible.^{12,13}

Prioritize:

- Minimize **endocrine disruptors** (BPA, phthalates)
- Choose cleaner personal care + household products
- Filter water when possible

CLINICAL MONITORING

Ongoing assessment of nutritional status, metabolic function, gastrointestinal symptoms and mental health supports early identification of pregnancy concerns and informs individualized care adjustments.

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