Brain and spinal cord development continue throughout pregnancy and depend upon a steady supply of B vitamins.

Laying A Strong Foundation

The cliché that a woman is eating for two during pregnancy does not mean doubling daily caloric intake. Estimates vary concerning the additional calories that a healthy pregnancy demands. The initial trimester relies more upon adequate vitamin and mineral requirements. Unlike caloric requirements, the increased need for vitamins and minerals is immediate. The vitamins and minerals you consume are your baby's only source of these micronutrients. An increase of between 25 and 50% of most vitamins and minerals is recommended during pregnancy.

More important requirements are the vitamin C and minerals necessary for the development and growth of the skeletal, nervous, and organ systems of the fetus. The nutritional value of supermarket food can not be taken for granted. **Prenatal** by New Roots Herbal will ensure that the critical nutritional requirements of both mother and child will be met before, during and after childbirth (including while breast-feeding).

B vitamins were once thought to be a single vitamin; however, these eight water-soluble vitamins are collectively referred to as the vitamin B complex. All eight B vitamins are included in Prenatal to promote the exponential cell growth and division that occurs during early pregnancy, along with the metabolic demands of the fetus and mother. These water-soluble vitamins are not stored by the body and are therefore in constant demand.

References

P. Goyal, R. Jaiswal, S. Hooda, R. Goyal & J. Lal : "Role Of Magnesium Sulphate For Brachial Plexus Analgesia". *The Internet Journal of Anesthesiology*. 2009, 21(1)

Kontic-Vucinic O, Terzic M, Radunovic N. "The role of antioxidant vitamins in hypertensive disorders of pregnancy". *J Perinat Med*. 2008;36(4):282-90.

Molloy AM, Kirke PN, Troendle JF, Burke H, Sutton M, Brody LC, Scott JM, Mills JL. "Maternal Vitamin B12 Status and Risk of Neural Tube Defects in a Population With High Neural Tube Defect Prevalence and No Folic Acid Fortification". *Pediatrics* Vol. 123 No. 3 March 2009, pp. 917-923.

Goh YI, Bollano E,Einarson TR andKoren G. "Prenatal Multivitamin Supplementation and Rates of Pediatric Cancers: A Meta-Analysis". *Clinical Pharmacology & Therapeutics* (2007) 81, 685–691.

Ronnenberg AG, Venners SA, Xu X, Chen C, Wang L, Guang W, Huang A, Wang X. "Preconception B Vitamin and Homocysteine Status, Conception, and Early Pregnancy Loss". *American Journal of Epidemiology* 2007 166(3):304-312.

Yajnik CS, Deshpande SS, Jackson AA, Refsum H, Rao S, Fisher DJ, Bhat DS, Naik SS, Coyaji KJ, Joglekar CV, Joshi N, Lubree HG, Deshpande VU, Rege SS, Fall CHD. "Vitamin B12 and folate concentrations during pregnancy and insulin resistance in the offspring: the Pune Maternal Nutrition Study". *Diabetologia Clinical and Experimental Diabetes and Metabolism* ePub: 15 September 2007

Green R. "Is it time for vitamin B12 fortification? What are the questions?" *Am J Clin Nutr* 89: 712S-716S, 2009.

Chavarro JE, Rich-Edwards JW, Rosner BA, Willett WC. "Use of multivitamins, intake of B vitamins and risk of ovulatory infertility". *Fertil Steril*. 2008 March; 89(3): 668–676.

Holick MF. "Resurrection of vitamin D deficiency and rickets". *J Clin Invest*. 2006 Aug;116(8):2062-72.

Bodnar LM, Simhan HN, Powers RW, Frank MP, Cooperstein E, Roberts JM. "High Prevalence of Vitamin D Insufficiency in Black and White Pregnant Women Residing in the Northern United States and Their Neonates". *J. Nutr.* 137:447-452, February 2007

Bodnar LM, Catov JM, Simhan HN, Holick MF, Powers RW, Roberts JM. "Maternal Vitamin D Deficiency Increases the Risk of Preeclampsia". 2007. *The Journal of Clinical Endocrinology & Metabolism* Vol. 92, No. 9 3517-3522.

Ingredients
Three vegetable capsules contain:

Vitamin C (as Calcium Ascorbate)	58.33 mg
Vitamin D (as Vitamin D3)	3.33 mcg
Vitamin E (as d-Alpha-Tocopheryl Acetate)	11.17 mg AT
Vitamin K (as Vitamin K1)	33.33 mcg
Vitamin B1 (Thiamine)	25 mg
Vitamin B2 (Riboflavin 5-phosphate)	11.67 mg
Vitamin B3 (Niacinamide)	16.67 mg
Vitamin B6 (Pyridoxal-5-phosphate)	11.67 mg
Folic acid (Folate)	333.33 mcg
Vitamin B12 (Methylcobalamin)	333.33 mcg
Biotin	100 mcg
Vitamin B5 (Calcium Pantothenate)	33.33 mg
Calcium Citrate	66.67 mg
Iron Glycinate	11.67 mg
Iodine (Potassium Iodide)	50 mcg
Magnesium Bisglycinate	33.33 mg
Zinc Citrate	8.33 mg
Selenomethionine	16.667 mcg
Copper Citrate	500 mcg
Manganese Citrate	1.67 mg
Chromium Polynicotinate	33.33 mcg
Molybdenum Citrate	16.667 mcg
Potassium Citrate	23.33 mg
Boron Citrate	233.33 mcg

Ingredients in this formula have been validated for potency and identity, and certified free of heavy metals and solvent residues using:
- Inductively Coupled Plasma Optical Emission Spectrometer (ICP-OES)
- HPLCs with Diode Arrays UV-VIS Detectors / Refractive Index Detectors
- Near-Infrared Spectroscope (FT-NIR Spectrometer)
- Headspace Gas Chromatography (organic solvent residues)
- Disintegration

PRENATAL
Sold exclusively to finer health food stores
www.newrootsherbal.com/store

Prenatal

Complete Multivitamin

For all stages, from conception to nursing

COMPREHENSIVE NUTRITIONAL SUPPORT TO MEET THE NEEDS OF PREGNANCY.

Planning a pregnancy involves many considerations; vitamin and mineral supplementation are among them. A healthy woman is more likely to conceive a healthy child. **PRENATAL** gives you the peace of mind that you have met the critical embryonic and fetal demands for additional vitamins and minerals. All the major body and organ systems are formed in the initial 10 weeks of pregnancy. Consider **PRENATAL** by New Roots Herbal as a policy to ensure your body meets the nutritional demands of your child for the full term.

Ensure proper fetal development

Prenatal by New Roots Herbal is formulated with the following 24 active ingredients:

Vitamin C (as Calcium Ascorbate): This buffered form of vitamin C doesn't cause stomach upset associated with other forms of vitamin C. Vitamin C is a cofactor in the production of collagen, the pivotal protein for all connective tissue. Vitamin C is also essential for immune system function.

Vitamin D (as Vitamin D3): This form of vitamin D, also known as cholecalciferol, is produced by exposure to sunlight. Vitamin D is necessary for calcium absorption; with sunlight at a premium during the winter months, supplementation is critical.

Vitamin E (as d-Alpha-Tocopheryl Acetate): Vitamin E supports immunological function with its antioxidant action in neutralizing free radicals.

Vitamin K (as Vitamin K1): This fat-soluble vitamin is active in the blood clotting process. Vitamin K is also essential for the conversion of glucose to glycogen (a readily available form of energy) for storage in the liver.

Vitamin B1 (Thiamine): This was the first vitamin discovered. It's a cofactor in the conversion of complex carbohydrates to glucose to fuel fetal nervous system development.

Vitamin B2 (Riboflavin 5-Phosphate): This biomolecule is the principal form of B2 found in cells and tissues. It is easily assimilated and more soluble than simple riboflavin. It improves bioavailability of nutrients for the rapidly developing fetus.

Vitamin B3 (Niacinamide): Also known as niacin, supporting nervous system development in the fetus and regulating adrenal function in the mother are among its most important functions.

Vitamin B5 (Calcium Pantothenate): Although deficiency of this vitamin is rare, it forms part of the coenzyme CoA, which is essential to numerous chemical reactions at the cellular level.

Vitamin B6 (Pyridoxal-5-Phosphate): This is the only form of B6 that can be used by enzymes for protein metabolism and the production of red blood cells to meet the oxygen demands for the developing fetus.

Folic Acid (Folate): Also known as vitamin B9, this is the vitamin in the B complex whose lack has been directly linked to birth defects. Folic acid deficiency has been connected to the neural tube defects spina bifida and anencephaly. Formation of the brain and spinal cord begin at conception; folic acid triggers the closure of the neural tube and fetal brain within the first 4 weeks of pregnancy. Folic acid supplementation prior to conception can reduce the incidence of spina bifida alone by 70%.

Vitamin B12 (Methylcobalamin): The most neurologically active form of B12, it doesn't require conversion prior to use: the body readily absorbs it. The role it plays in DNA synthesis is of critical importance at the embryonic stage.

Biotin: Biotin (also called vitamin B7) is essential for fetal cell growth, along with the metabolism of amino acids and fats. The "citric acid cycle" (aerobic cellular respiration) occurs in the mitochondria of every cell and relies upon biotin to occur.

Calcium Citrate: Calcium is the foundation of bone formation; calcium citrate is a highly bioavailable form of calcium for the mother and developing fetus.

Iron Glycinate: Iron is the backbone for hemoglobin—during pregnancy, blood volume expands by 50%. Keeping the placenta oxygenated with adequate red blood cells facilitates proper fetal development. We use a chelated form of iron in **Prenatal** for its high degree of bioavailability.

Potassium Iodide: Thyroid function is often negatively affected during pregnancy. Iodine is irreplaceable for the production of the hormones triiodothyronine (T3) and thyroxine (T4). Thyroid hormones control the metabolism of every cell in the human body; insuring proper thyroid function is a key component of a healthy pregnancy.

Magnesium Bisglycinate: Magnesium bound to amino acids provides the most bioavailable form of this critical trace element, essential for over 300 enzymatic reactions and the creation of bone mass.

Zinc Citrate: Zinc is often referred to as the fertility mineral: the health and vigor of both sperm and ovum (female egg) rely on an adequate supply of this critical mineral. Zinc citrate is a safe and bioavailable combination of zinc and citrate which is a derivative of citric acid. Zinc also supports DNA production and is essential for the establishment of a healthy immune system.

Selenomethionine: Selenomethionine is a highly bioavailable form of selenium in the form of an amino acid chelate. Selenium contributes to effective thyroid function that is often compromised during and after pregnancy.

Copper Citrate: Copper works as a cofactor in several processes that are important to both mother and child. Copper facilitates the inclusion of iron into red blood cells to respond to the need for increased hemoglobin to nourish the placenta. Copper is also a major component of the myelin sheath that insulates nerve fibers.

Manganese Citrate: Manganese is one of the trace elements that facilitates the production of bone and cartilage; the fetal demands for bone and cartilage formation intensify in the second and third trimesters. Manganese also promotes enzymatic action pivotal to the body's use of several ingredients in **Prenatal**, including biotin, thiamin, and vitamin C.

Chromium Polynicotinate: Chromium enhances the production of insulin. Potential chromium deficiency can contribute to pregnancy-related diabetes.

Molybdenum Citrate: Molybdenum is a cofactor that works with sulfite oxidase to change potentially toxic sulfites to harmless sulfates. Sulfite allergies are particularly dangerous for those suffering from asthma, as any interruption of oxygen to the placenta is potentially harmful.

Potassium Citrate: This form of potassium is readily absorbed and helps regulate electrolyte levels, along with the delicate balance between sodium and potassium that are responsible for cellular respiration.

Boron Citrate: Boron works synergistically with vitamin D and estrogen to promote strong bones. Onset of osteoporosis can begin at the age of 30 for some women; therefore elements that promote healthy bones are good for child-bearing women.