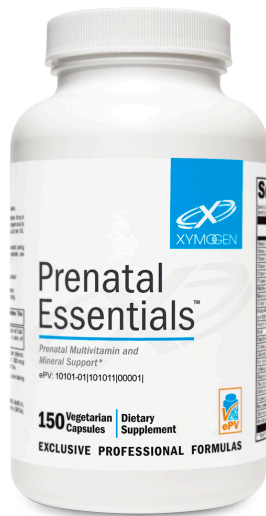


Prenatal Essentials™

Prenatal Multivitamin and Mineral Support*



Available in 150 vegetarian capsules

Discussion

Each individual component of Prenatal Essentials™ has an important role in maternal nutrition and a healthy pregnancy outcome.* This discussion highlights the key contributors:

Vitamin D and Choline The importance of these nutrients in maternal health and healthy fetal neurodevelopment cannot be overstated. Within the last several years, research on vitamin D and the prevalence of its insufficiency has exploded. Vitamin D is important for neuronal growth and development. Maternal vitamin D metabolism and vitamin D insufficiency are important considerations given the association made between maternal vitamin D status during pregnancy and brain function in the child.^[1-3] Maternal reserves of choline are depleted during pregnancy, yet its availability is critical because it is the starting material for important metabolites that play key roles in fetal development, particularly brain development. Current data show that most pregnant women are not achieving target intake levels and, in addition, certain common genetic variants may increase requirements.*^[4,5]

Folate Prenatal Essentials provides calcium folinate as well as 5-methyltetrahydrofolate (5-MTHF)—the most bioavailable, active form of folate. 5-MTHF is provided as Quatrefolic®, which is proven to have greater stability, solubility, and bioavailability than calcium salt forms of 5-MTHF.^[6,7] Adequate folate nutrition before and during pregnancy supports normal fetal neurological development and a healthy pregnancy outcome.^[8] Supplementing with bioactive 5-MTHF allows for the bypassing of steps in folate metabolism. This may be especially beneficial in those with digestive concerns and those with genetic variations in folate metabolism.*^[9,10]

B Vitamins Prenatal Essentials provides generous levels of these critical vitamins because sufficient levels are needed for energy production; cell growth and division, including that of red blood cells; and neurologic, cardiovascular, immune, dermatological, and emotional health.^[11] In addition, B6 (pyridoxal 5'-phosphate) has been studied for its ability to soothe the stomach during pregnancy.*^[12,13]

Clinical Applications

- » Supports Maternal Nutrition Before and During Pregnancy*
- » Supports a Healthy Pregnancy Outcome*
- » Provides Key Ingredients to Promote Healthy Fetal Neurodevelopment*

*Prenatal Essentials™ is designed to nourish maternal health prior to conception and during pregnancy while optimally supporting baby's healthy development. Key nutrients are provided in forms that enhance absorption and are gentle on the digestive tract.**

Features:

- 5-MTHF – the most biologically active form of folate, an essential vitamin for brain and spinal cord development*
- Bioavailable and gentle minerals – Ferrochel® iron, DimaCal® calcium, and trace minerals provided as amino acid chelates promote optimal utilization while being gentle to the gastrointestinal tract*

Bioavailable and Gentle Iron Approximately 20% of pregnant women have iron deficiency anemia^[14], and it's likely that a greater number have insufficient levels of iron. Ferrochel® iron has been shown to help increase and maintain blood levels of iron while being gentle to the stomach and colon. This form of iron performs the stomach's work in advance by binding minerals to amino acids, an action which allows the iron molecules to pass easily through the intestinal wall and thereby avoid stomach upset (as seen with other forms of iron) while maximizing absorption.*^[15,16]

Other Important Nutrients Prenatal Essentials provides supportive nutrients, including vitamins A, C, D, and E; mixed carotenoids; and selenium to address the increased physiological stress of pregnancy and promote healthy tissue maintenance and growth. Research suggests that good maternal antioxidant status may positively influence birth weight.^[17] Zinc, copper, manganese, chromium, and molybdenum are provided as TRAACS® amino acid chelates for improved absorption in the gut and optimal assimilation. Calcium is provided as DimaCal®, a patented complex of calcium and malic acid that not only supports optimal calcium utilization and gastric tolerance but also supports the body's energy-producing cycles. Calcium is provided in a 2:1 ratio with magnesium, which may help support normal muscular contraction in legs and arteries.^[18,19] Vitamin K and iodine are added to help ensure maternal sufficiency.*

Prenatal Essentials™ Supplement Facts

Serving Size: 5 Capsules

	Amount Per Serving	%DV for Pregnant or Lactating Women
Vitamin A (60% as natural beta-carotene and 40% as retinyl palmitate)	1500 mcg	115%
Vitamin C (ascorbic acid)	100 mg	83%
Vitamin D3 (cholecalciferol)	50 mcg (2000 IU)	333%
Vitamin E (as d-alpha tocopheryl succinate and mixed tocopherols)	134 mg	705%
Thiamin (as thiamine HCl)	5 mg	357%
Riboflavin (as riboflavin 5'-phosphate sodium)	5 mg	313%
Niacin (as niacinamide)	25 mg	139%
Vitamin B6 (as pyridoxal 5'-phosphate)	20 mg	1000%
Folate (400 mcg DFE as [6S]-5-methyltetrahydrofolic acid glucosamine salt ^{S1} and 400 mcg DFE as calcium folinate)	800 mcg DFE	133%
Vitamin B12 (as methylcobalamin)	50 mcg	1786%
Biotin	300 mcg	857%
Pantothenic Acid (as d-calcium pantothenate)	25 mg	357%
Choline (as choline dihydrogen citrate)	200 mg	36%
Calcium (as dicalcium malate) ^{S2}	400 mg	31%
Iron (as ferrous bisglycinate chelate) ^{S2}	30 mg	111%
Iodine (as potassium iodide)	225 mcg	78%
Magnesium (as dimagnesium malate) ^{S2}	200 mg	50%
Zinc (as zinc bisglycinate chelate) ^{S2}	20 mg	154%
Selenium (as L-selenomethionine)	100 mcg	143%
Copper (as copper bisglycinate chelate) ^{S2}	2 mg	154%
Manganese (as manganese bisglycinate chelate) ^{S2}	5 mg	192%
Chromium (as chromium nicotinate glycinate chelate) ^{S2}	100 mcg	222%
Molybdenum (as molybdenum glycinate chelate) ^{S2}	100 mcg	200%
Vitamin K2 (as menaquinone-7)	100 mcg	**

** Daily Value (DV) not established.

Other Ingredients: Capsule (hypromellose and water), microcrystalline cellulose, ascorbyl palmitate, silica, and medium-chain triglyceride oil.

DIRECTIONS: Take five capsules daily, or as directed by your healthcare professional.

Consult your healthcare professional before use. Individuals taking medication should discuss potential interactions with their healthcare professional. Do not use if tamper seal is damaged.

WARNING: Accidental overdose of iron-containing products is a leading cause of fatal poisoning in children under 6. Keep this product out of reach of children. In case of accidental overdose, call a doctor or poison control center immediately.

Vitamin A: Excess vitamin A intake may be toxic and may increase the risk of birth defects. Pregnant women and women who may become pregnant should not exceed 1,500 mcg RAE (5,000 IU) of preformed vitamin A (retinyl acetate or retinyl palmitate) per day.

Vitamin K: Consider total vitamin K intake (food and supplements) if you are taking blood-thinning medication.

STORAGE: Keep closed in a cool, dry place out of reach of children.

FORMULATED TO EXCLUDE: Wheat, gluten, yeast, soy protein, dairy products, fish, shellfish, peanuts, tree nuts, egg, ingredients derived from genetically modified organisms (GMOs), artificial colors, artificial sweeteners, and artificial preservatives.

 **Quatrefolic** - S1. Quatrefolic® is a registered trademark of Gnosis S.p.A. Produced under US Patent 7,947,662.



S2. Albion®, DimaCal®, FerroChel®, and TRAACS® are registered trademarks of Albion Laboratories, Inc. Malates covered by U.S. patent 6,706,904 and patents pending.

References

1. Currenti SA. *Cell Mol Neurobiol.* 2010;30(2):161-71. doi:10.1007/s10571-009-9453-8.
2. Cannell JJ. *Acta Paediatr.* 2010;99(8):1128-30. doi:10.1111/j.1651-2227.2010.01883.x.
3. Grant WB, Soles CM. *Dermatoendocrinol.* 2009;1(4):223-28. doi:10.4161/derm.1.4.9500.
4. Caudill MA. *J Am Diet Assoc.* 2010;110(8):1198-206. doi:10.1016/j.jada.2010.05.009.
5. Zeisel SH. *Am J Clin Nutr.* 2009;89(2):673S-77S. doi:10.3945/ajcn.2008.26811D.
6. Quatrefolic® Solubility Statement. Daylestown, PA: Gnosis USA, Inc; 2019.
7. Ismaili S. Crossover Comparative Bioavailability Study of 5-Methyltetrahydrofolate Glucosamine Salt (GN10G) Compared to the Reference Metafolin® in Healthy Volunteers. IPAS-5MTHFA-583-09 final report. Desio, Italy: Gnosis S.p.A.; March 15, 2010:1-33. [available from the manufacturer Gnosis S.p.A. upon request]
8. Folic Acid Fact Sheet. U.S. Department of Health and Human Services, Office on Women's Health. <https://www.womenshealth.gov/files/documents/fact-sheet-folic-acid.pdf>. Updated April 1, 2019. Accessed October 26, 2020.
9. Prinz-Langenohl R, Brämswig S, Tobolski O, et al. *Br J Pharmacol.* 2009;158(8):2014-21. doi:10.1111/j.1476-5381.2009.00492.x.
10. Lamers Y, Prinz-Langenohl R, Brämswig S, et al. *Am J Clin Nutr.* 2006;84(1):156-61. doi:10.1093/ajcn/84.1.156.
11. B Vitamins. Medline PLUS. <https://medlineplus.gov/bvitamins.html>. Accessed October 26, 2020.
12. Ebrahimi N, Maltepe C, Einarson A. *Int J Womens Health.* 2010;2:241-48. doi:10.2147/ijwh.s6794.
13. Jewell D, Young G.. *Cochrane Database Syst Rev.* 2003;(4):CD000145. doi:10.1002/14651858.CD000145.
14. Anemia During Pregnancy. Utah Department of Health: Maternal and Infant Health Program. <https://mihp.utah.gov/during-pregnancy/anemia>. Accessed October 26, 2020.
15. Szarfarc SC, de Cassana LM, Fujimori E, et al. *Arch Latinoam Nutr.* 2001;51(1 Suppl 1):42-47. [PMID: 11688081]
16. Ferrochel Effectiveness. Albion Human Nutrition. <https://www.albionferrochel.com/index.php/effectiveness>. Accessed October 26, 2020.
17. Osorio JC, Cruz E, Milanés M, et al. *Reprod Toxicol.* 2011;31(1):35-40. doi:10.1016/j.reprotox.2010.09.011.
18. Roffe C, Sills S, Crome P, et al. *Med Sci Monit.* 2002;8(5):CR326-30. [PMID: 12011773]
19. Jain S, Sharma P, Kulshreshtha S, et al. *Biol Trace Elem Res.* 2010;133(2):162-70. doi:10.1007/s12011-009-8423-9.

Additional references available upon request

All XYMOGEN® Formulas Meet or Exceed cGMP Quality Standards.

*These statements have not been evaluated by the Food and Drug Administration. This product is not intended to diagnose, treat, cure, or prevent any disease.

© XYMOGEN
DRS-159
Rev. 01/11/21

