



# Bessie®

## 貝詩孕婦維他命丸



*Your wise choice of dietary supplement during pregnancy*

### Best Supplement for Pre & Post Natal Women

Women who are able to maintain a balanced diet tend to have fewer complications during pregnancy and labor, and they even deliver stronger, healthier and more adorable babies.<sup>[1-3]</sup>

Maintaining a high nutrient and well-balanced diet is one of the most important aspects that you can ensure a better health of your baby as well as the mother yourself.<sup>[1-3]</sup> However, even keeping yourself strictly to follow a balanced diet may not ensure that you can get adequate amount of specific nutrients for expectant women, especially folic acid, calcium and iron.<sup>[1-3]</sup> As the prenatal vitamins tablet contains well-balanced nutrients which is especially formulated for expectant and postnatal women, may provide the following benefits:

#### Folic Acid

Folic acid is required for energy production and the formation of red blood cells. It strengthens the immune system by aiding proper formation and functioning of white blood cells. It is also required for DNA and amino acid synthesis and maintenance.<sup>[4]</sup> Studies show that mental retardation caused by neural tube defects may be prevented if expectant women absorb adequate amount of folic acid.<sup>[5]</sup> U.S. FDA suggested that an expectant woman should absorb at least 600mcg – 800mcg of folic acid daily.<sup>[6]</sup>

#### Calcium

Calcium is the most necessary mineral for human. 99% of the calcium in our body is stored in bones and teeth.<sup>[7]</sup> Women normally need more calcium than male, especially during pregnancy.<sup>[8]</sup> Calcium helps forming the baby's bones and teeth, maintain the functions of neurotransduction, cardiovascular dilation and contraction, and blood clotting.<sup>[9-10]</sup>

#### Iron

Iron is crucial for expectant women. It helps building red blood cells, improves immune system and helps resisting against disease for mothers and embryos.<sup>[11-12]</sup> Prenatal vitamins tablet provides expectant mothers sufficient iron intake which avoid insufficient absorption from daily diet.

#### Zinc

More than 300 enzymes depend on zinc for catalytic activity.<sup>[13]</sup> Zinc activates white blood cells to fight against infections.<sup>[14]</sup> During the normal growth or wound healing process, zinc is responsible for DNA/RNA synthesis, cell division and protein synthesis.<sup>[3]</sup> Some proteins also require zinc to maintain their structure.<sup>[13,15]</sup>

#### B-Group Vitamins

Prenatal vitamins tablet contains vitamin B complex including B1, B2, B3, B6 and B12. This B-group vitamins is a team of nutrients, to be taken together and works synergistically.<sup>[16]</sup> B-Group vitamins help to maintain healthy nerves, skin, eyes, hair, liver and oral cavities as well as healthy muscle tone in the gastrointestinal tract and proper brain function.<sup>[16-19]</sup>

#### Antioxidant Group Vitamins

Studies show that cells are damaged by free radicals, which is a group of atoms that attack the immune system leading to infection, degenerative diseases and even cancer.<sup>[12, 20]</sup> Prenatal vitamins tablet includes antioxidant vitamins A, C and E, which helps protect the eye, skin, blood cells and germ cells from oxidative damage and is vital for expectant women and babies' immune and nervous system.<sup>[21-22]</sup>

#### References:

1. Imdad A, Bhutta ZA. Effect of balanced protein energy supplementation during pregnancy on birth outcomes. BMC Public Health 2011, 11(Suppl 3):S17
2. Black RE, Allen LH, Bhutta ZA, Caulfield LE, de Onis M, Ezzati M, Mathers C, Rivera J: Maternal and child undernutrition: global and regional exposures and health consequences. Lancet 2008, 371(9608):243-260.
3. Shah PS, Ohlsson A; Knowledge Synthesis Group on Determinants of Low Birth Weight and Preterm Births. Effects of prenatal micronutrient supplementation on pregnancy outcomes: a meta-analysis. CMAJ. 2009 Jun 9;180(12):E99-108.
4. Institute of Medicine. Food and Nutrition Board. Dietary Reference Intakes: Thiamin, Riboflavin, Niacin, Vitamin B6, Folate, Vitamin B12, Pantothenic Acid, Biotin, and Choline. Washington, DC: National Academy Press, 1998.
5. Committee on Genetics, American Academy of Pediatrics. Folic Acid for the Prevention of Neural Tube Defects. Pediatrics 1999;104:325-327.
6. Title 21 Food and Drugs. Chapter 1 - Food and Drug Administration Department of Health and Human Services, Subchapter B - Food for Human Consumption. Part 101 - Food Labeling, Subpart E - Specific Requirements for Health Claims. Section 101.79 Health claims: Folate and neural tube defects. [CFR - Code of Federal Regulations, Title 21, Volume 2, Revised as of April 1, 2011, CITE: 21CFR101.79]
7. Institute of Medicine Committee to Review Dietary Reference Intakes for Vitamin D and Calcium; Ross AC, Taylor CL, Yaktine AL, Del Valle HB (eds). Dietary Reference Intakes for Calcium and Vitamin D. Washington DC: National Academies Press; 2011.
8. Food and Nutrition Board, Institute of Medicine. Dietary Reference Intakes for Calcium, Phosphorus, Magnesium, Vitamin D, and Fluoride. Washington, DC: National Academy Press; 1997.
9. Heaney RP. Calcium intake and disease prevention. Am J Clin Nutr. 2006 Aug;83(4):685-693.
10. Berchtold MW, Brinkmeier H, Muntener M. Calcium ion in skeletal muscle: its crucial role for muscle function, plasticity, and disease. Physiol Rev. 2000 Jul;80(3):1215-1265.
11. Earl R and Woteki CE. Iron Deficiency Anemia: Recommended Guidelines for the Prevention, Detection, and Management Among U.S. Children and Women of Childbearing Age. National Academy Press. Washington D.C. 1993.
12. Field CJ, Johnson IR, Schley PD. Nutrients and their role in host resistance to infection. J Leukoc Biol. 2002 Jan;71(1):16-32.
13. MacKay D, Miller AL. Nutritional support for wound healing. Altern Med Rev. 2003;8(4):359-77.
14. Rink L, Gabriel P. Zinc and the immune system. Proc Nutr Soc. 2000;59(4):541-52.
15. Food and Nutrition Board, Institute of Medicine. DRI : Dietary Reference Intakes for Vitamin A, Vitamin K, Arsenic, Boron, Chromium, Copper, Iodine, Iron, Manganese, Molybdenum, Nickel, Silicon, Vanadium, and Zinc. Washington, D.C.: National Academy Press, 2001.
16. Food and Nutrition Board, Institute of Medicine. Dietary Reference Intakes for Thiamin, Riboflavin, Niacin, Vitamin B6, Folate, Vitamin B12, Pantothenic Acid, Biotin, and Choline. Washington, DC: National Academy Press; 1998. Available at <http://www.nap.edu/catalog/6015.html>
17. G D Perkin, I Murray-Lyon. Neurology and the gastrointestinal system. J Neurol Neurosurg Psychiatry 1998;65:291 - 300.
18. Damodaran M, Rameshwar Sarma KV, Tiar A, Nadamuni Naidu A. Vitamin B-complex deficiency and visual acuity. Br J Nutr. 1979 Jan;41(1):27-30.
19. van der Beek EJ, van Dokkum W, Hermus RJ et al. Thiamin, riboflavin, and vitamins B-6 and C: impact of combined restricted intake on functional performance in man. Am J Clin Nutr. 1988 Dec;48(6):1451-1462.
20. E Kaegi. Unconventional therapies for cancer: 5. Vitamins A, C and E. CMAJ. 1998 June 2; 158(11): 1483- 1488.
21. Zaidi SM, Banu N. Antioxidant potential of vitamins A, E and C in modulating oxidative stress in rat brain. Clin Chim Acta. 2004;340(1-2):229-33.
22. Pinar-Sueiro S, Martinez-Fernandez R, Lage-Medina S, Aldamiz-Echevarria L, Vecino E. Optic neuropathy in methylmalonic acidemia: the role of neuroprotection. J Inher Metab Dis. 2010 May 7, doi: 10.1007/s10545-010-9084-8.

#### Recommended daily dose:

For Pregnant Women take 1 tablet daily or directed by the physicians.

Made in U.S.A.