

# IRON PLUS Folic Acid

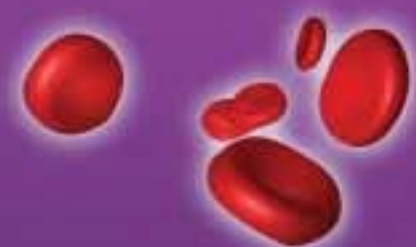
Softgel Capsules

## Anemia: a disease that should not be overlooked

Anemia is generally defined as a decrease in the number of red blood cells or in the quantity of hemoglobin (the protein responsible for carrying oxygen in blood).<sup>[1]</sup> This decreases the amount of oxygen that could be provided to the body cells and tissues and as such reduces energy production, resulting in tiredness or other symptoms. Severe anemia could be damaging to organs and may even cause death.<sup>[2-3]</sup>

Anemia is the world's second leading cause of disability, according to the World Health Organization. Anemia is a major public health concern with over 1.6 billion people in the world suffering from this disease.<sup>[1]</sup> Women of childbearing age, pregnant women, adolescent, infants and vegetarians are of particular high risk due to menstrual blood loss, increased dietary iron requirement for growth or lack of particular nutrients in diet.<sup>[3]</sup>

In fact, iron deficiency anemia is the most common form of anemia, as well as deficiency of vitamin B12 and folic acid.<sup>[4]</sup> To produce red blood cells, our body needs iron, folic acid and vitamin B12. Taking dietary supplements could compensate for inadequate intake of these important nutrients from diet. For adolescent with iron deficiency anemia, the Centers for Disease Control and Prevention (U.S.) recommends intake of 60mg elemental iron 1-2 times per day.<sup>[5]</sup>



## Symptoms of Anemia [3,6]

- Fatigue and weak
- Gastrointestinal disturbances
- Pallor, coldness in hands and feet
- Loss of libido
- Dyspnoea, palpitations
- Tachycardia, heart failure
- Headache, faintness or lightheadedness
- Retinal haemorrhage
- Tinnitus
- Brittle, flattened nails
- Anorexia
- Cognitive abnormalities



## Iron Dietary Supplements

Dietary supplement specifically formulated for prevention and treatment of iron deficiency anemia usually contains iron, together with one or more vitamins to aid absorption of the mineral. The overall effect is to replace iron store and as such raise blood hemoglobin level.<sup>[7]</sup> Examples of active ingredients are:

### Ferrous Fumarate

This is the ideal iron form that is more easily absorbed by our body. Iron is essential for red blood cell production. It is also involved in various body functions including oxygen transport in blood and muscle, cell growth, energy production, neurotransduction and protein synthesis.<sup>[8]</sup>

### Vitamin B12

Help the absorption of iron with folic acid and aid formation of red blood cells. It is also required for proper neurological function and DNA synthesis.<sup>[9]</sup>

### Folic Acid

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>[9]</sup>

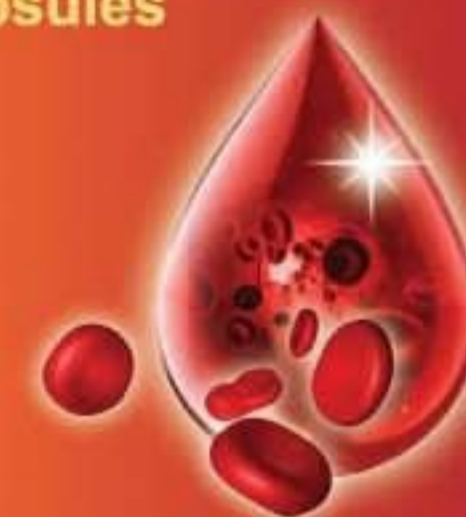
## Vitamin C

It is an important element in numerous biosynthesis and it can enhance absorption of iron. It assists wound healing process and it is a strong anti-oxidant.<sup>[10]</sup>

## Iron and Folic acid Softgel Capsules

### Ingredients

Iron	70 mg
Folic Acid	1 mg
Vitamin B12	10 mcg
Vitamin C	150 mg



### Directions:

Adults: Take 1 softgel capsule daily after meal or as directed by physicians.

### References:

1. World Health Organization. Anaemia Prevention and Control. Available from: [http://www.who.int/medical\\_devices/initiatives/anaemia\\_control/en/index.html](http://www.who.int/medical_devices/initiatives/anaemia_control/en/index.html)
2. Haas JD, Brownlie T 4th. Iron deficiency and reduced work capacity: a critical review of the research to determine a causal relationship. J Nutr 2001;131:691S-6S.
3. Andrews NC. Disorders of iron metabolism. N Engl J Med 1999;341:1986-95.
4. Stang J, Story M (eds). Guidelines for Adolescent Nutrition Services. University of Minnesota, 2005. Stoltzfus RJ.
5. CDC Recommendations to prevent and control iron deficiency in the United States. Centers for Disease Control and Prevention. MMWR Recomm Rep 1998;47:1-29.
6. Martindale: The Complete Drug Reference. (online). Anaemias. The Pharmaceutical Press. [Accessed on 22 May 2012]
7. Dallman PR. Biochemical basis for the manifestations of iron deficiency. Annu Rev Nutr 1986;6:13-40.
8. Institute of Medicine. Food and Nutrition Board. Dietary Reference Intakes for Vitamin A, Vitamin K, Arsenic, Boron, Chromium, Copper, Iodine, Iron, Manganese, Molybdenum, Nickel, Silicon, Vanadium and Zinc. Washington, DC: National Academy Press, 2001.
9. 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.
10. Siegenberg D, Baynes RD, Bothwell TH, Macfarlane BJ, Lamparelli RD, Car NG, MacPhail P, Schmidt U, Tal A, Mayet F. Ascorbic acid prevents the dose-dependent inhibitory effects of polyphenols and phytates on nonheme-iron absorption. Am J Clin Nutr 1991;53:537-41.