Liquid Iron

with added Vitamin B12 & Folic Acid

Recommended Use:

- Iron deficiency
- Supports red blood cell formulation and production
- Maintains physiological iron stores
- Prevents iron deficiency anemia

Great vanilla taste for improved patient compliance

Liquid Iron has been formulated with ferric ammonium citrate, a non-constipating citrate form of iron, with folic acid and vitamin B12. Red blood cell production is dependent on iron, vitamin B12 and folic acid. Deficiency of one or more of these nutrients can lead to anemia and low red blood cell production. Liquid Iron is an ideal combination to support the formulation and maintenance of red blood cells.

Iron

Iron is an essential trace mineral in human nutrition. It is involved in the entire process of respiration, including oxygen transport and electron transport. The principle goal of respiration is biological energy production. The most important function of iron in the body is the production of hemoglobin and myoglobin (the form of hemoglobin found in the muscle tissue), and the oxygenation of the red blood cells.

Deficiencies of iron can result in anemia, brittle hair, difficulty swallowing, digestive disturbances, dizziness, fatigue, fragile bones, hair loss, inflammation of the tissues of the mouth, nails that are spoon-shaped or that have ridges running lengthwise, nervousness, obesity, pallor, and slowed mental reactions. Iron is stored in the body, and excessive iron intake can also cause problems leading to the production of free radicals and increased need for vitamin E. High levels of iron has also been associated with heart disease and cancer.

Iron-deficiency, which can lead to a microcytic, hypochromic anaemia, is the most common nutritional disorder in the world. Approximately 25% of the world's population is iron-deficient. In addition, iron is necessary for the production of haemoglobin. Iron-deficiency can lead to decreased production of haemoglobin and a microcytic, hypochromic anaemia. Other than its fundamental roles, iron is involved in DNA synthesis and iron may also play roles in normal brain development and in immune function. Iron is also involved in the synthesis of collagen and in the synthesis of serotonin, dopamine and norepinephrine.

Some researchers have reported that up to 25% of adolescent girls in the United States are iron deficient. In one double-blind, placebo-controlled study, the effects of iron supplements were tested in adolescent girls with non-anaemia iron deficiency to see if they might improve cognition. Subjects were randomized to receive 650 milligrams of iron twice daily or placebo for eight weeks. Those with iron supplementation were reported to perform significantly better than those in the placebo group on tests related to verbal learning and memory[1].

Iron deficiency is known to diminish various aspects of immune function. Adequate levels help maintain cellular immunity and help to protect against some infections. Cell-mediated immune response may be impaired when iron deficiency negatively impacts the iron-requiring enzyme called ribonculeotide reductase, an enzyme that appears to be essential for the proper function of the T-lymphocyte arm of immunity. Resistance to candida, herpes simplex virus and some other pathogens appears to be reduced in those with poor iron status. On the other hand, excess iron may predispose individuals to some infections[2].

Vitamin B12

Vitamin B12 supports the brain, the heart, and the nervous system, as it is needed for proper development and function of the blood cells, nerve cells and cardiac muscle cells. It assists in metabolism of carbohydrates and fats

Medicinal Ingredients: Each teaspoon (5 ml) contains:

Folate (folic acid)	440 µg
Vitamin B12 (cyanocobalamin)	110 µg
Iron (ferric ammonium citrate)	20 mg

Non-Medicinal Ingredients: Vanilla, glycerin, potassium sorbate, sodium benzoate, stevia, water.

Recommended Dosage (adult): Take one teaspoon a day with food or as directed by a health care practitioner.

Caution/Warnings: Keep out of reach of children. There is enough iron in the package to seriously harm a child.

NPN 80002103 • 250 ml

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for energy production, is necessary in the synthesis of essential fatty acids for maintaining the myelin sheath around the nerves, ensures synthesis of red blood cells and DNA, plays an essential role in a healthy immune system and central nervous system function, and is needed for the production of acetylcholine, a neurotransmitter that assists with learning and memory. As vitamin B12 is obtained in the diet from animal sources, strict vegetarians and vegans must use daily supplementation.

It is well known to supplement B12 in cases of anemia. The 'cobalamins' are structurally related to blood hemoglobin, and a deficiency of vitamin B12 can produce an anemic state in the body. Often B12 deficiencies are prevalent with age; however they are more widespread in younger populations than previously thought. The deficiencies are due to either an insufficient intake or difficulty absorbing the vitamin in the digestive tract. Deficiencies of B12 can result in deterioration of mental function and neurologic damage that will yield such symptoms as memory loss, decreased reflexes, weakness, fatigue, disorientation, impaired pain perception, tinnitus (chronic ringing in the ears), hearing difficulties, neuropathy, burning tongue, numbness or pin and needles or burning in the extremities, depression, sleep cycle disturbances and various psychiatric disorders.

Folic Acid

Folic acid, along with vitamin B12, is required for the synthesis of DNA, the principal genetic material in the body. Folic acid helps the body form red blood cells and aids in the formation of genetic material within every cell of the body. Scientific evidence suggests that adequate folic acid may reduce a woman's risk of having a child with a brain or spinal cord birth defect, making it an important prenatal nutritional supplement or for those planning to become pregnant. Folic acid deficiency can also cause fatigue and weakness, along with irritability, cramps, anemia, nausea, loss of appetite, diarrhea, hair loss, mouth and tongue pain, and neurological problems.

This combination formula of iron, B12 and folic acid is ideal to improve energy, maintain healthy physiological iron stores and support red blood cell formation and production. In addition, the pleasant taste of Liquid Iron leads to improved patient compliance.

References:

1. Bruner AB, Joffe A, Duggan A, et al. Randomised study of cognitive effects of iron supplementation in non-anaemic iron-deficient adolescent girls. Lancet. 1996; 348:992-997.
2. Dallman PR. Iron deficiency and the immune response. Am J Clin Nutr. 1987; 46:329-334.