



**Nutritional support for healthy ferritin, hemoglobin and red blood cell function**

## APPLICATIONS / BENEFITS

- Supplies essential mineral for red blood cell formation
- Provides enhanced iron absorption without GI side effects such as constipation and gastric upset
- Supplements inadequate dietary intake of iron
- Supports iron deficiency

## OVERVIEW

**Patient One Iron Chelate** supplies 28 mg of iron, an important component of hemoglobin, a protein in red blood cells that delivers oxygen to tissues throughout the body. Iron is also a part of myoglobin, a protein that helps muscle cells store oxygen, and ferritin, the body's main iron storage protein found in the intestines, liver and spleen. Iron bound to ferritin is readily available to meet the body's demands.

Conventional iron supplementation, including forms such as ferrous sulfate, can cause GI side effects – including nausea, vomiting, constipation, diarrhea, and dark-colored stools – because these conventional forms are poorly absorbed. Our formula provides Ferrochel® brand iron bisglycinate, which was developed using unique patented chemistry, allowing it to be absorbed rapidly from the lumen of the intestines into mucosal cells and then released for transport throughout the body. The intestinal mucosal tissue tightly controls the release of Ferrochel, supporting the safety profile of this iron amino acid chelate.

## KEY INGREDIENTS

### Ferrochel® (patented iron bisglycinate chelate)

Ferrochel is a well-studied ferrous iron amino acid chelate exclusively available through Albion Laboratories. Ferrous iron is reacted with glycine to form bisglycinate chelate, a non-electrically charged compound that is totally nutritionally functional. The absence of an electrical charge, uncommon for an iron supplement, makes it less likely that Ferrochel can

interfere with absorption of other minerals such as calcium, vitamin E or vitamin C. Iron solubility from iron bisglycine chelate is not affected by pH changes from 2-6. As such, it travels through the stomach, into the intestine, where it is absorbed and released for transport throughout the body.

Ferrochel provides many unique attributes that support its superior role as an iron supplement. These include molecular size and ionic charge, stability, non-reactivity, bioavailability and tolerability.

Iron is an essential nutrient in human health, playing a role in immune function, cardiovascular health and cognitive development. While iron can be found in vegetables (spinach, corn) and beans (soybeans, kidney beans), its bioavailability is poor; iron found in meat is much more bioavailable. Iron deficiency is the most commonly occurring nutrient deficiency. In the United States alone, the Centers for Health Statistics estimates 12 percent of women of child-bearing age are anemic, while 10 percent of seniors have iron-deficiency anemia. The World Health Organization reports that 1.3 billion people suffer from iron deficiency anemia.

## RESEARCH

- A trial in France monitored vitamin A activity in solution alone, with Ferrochel and with iron chloride for almost a year (Bourbonnais, 1994). While the iron chloride caused extensive vitamin A degradation, there was no interaction between Ferrochel and vitamin A; vitamin degradation of the mixture was identical to vitamin A alone. In another trial in Canada, several sam-

ples of a multivitamin and multi-mineral dietary supplement formulation were tested for vitamin and mineral activity over 17 months (McCausland, 1995). There was no interaction between Ferrochel and any of the vitamins or minerals; all vitamins remained within their original USP ranges after 17 months of storage.

- A double blind, crossover trial at the University of Chicago compared the tolerability of 50 mg/d of Ferrochel to 50 mg/d of ferrous sulfate in 38 premenopausal women. (Colin, 1991). A significant number of the subjects preferred the Ferrochel formulation, and reported fewer instances of gastrointestinal (GI) upset with that formula. These findings are supported by a trial out of the Universidad de San Carlos, Guatemala, in which iron deficient anemic adolescents were given ferrous sulfate or Ferrochel at varying levels (Ponce-Lemus, 1991). At a dosage of 120 mg of iron, 40 percent of subjects taking the dosage as ferrous sulfate reported significant GI effects, while only 15 percent of those taking Ferrochel reported such effects. When the dosage was decreased to 30 mg of iron as Ferrochel, there were no complaints of gastric side effects, and the dosage was still bioavailable enough to correct anemia.

- Ferrochel has been clinically shown to restore iron levels in anemic subjects. In a human clinical trial in Germany, 30 patients suffering iron-deficiency anemia received 24 mg/d of iron as Ferrochel (Kirchhoff, 1983). After one month, some patients had total correction of the deficiency, while all patients showed significantly increased serum iron, erythrocyte number, hemoglobin and hematocrit values. Similarly, in the Guatemalan trial involving 88 adolescents with severe anemia, those who received Ferrochel showed increased ferritin levels, with only 30 mg/d of iron as Ferrochel increasing hemoglobin values as effectively as 120 mg/d of iron as ferrous sulfate.

## REFERENCES

1. Ashmead SD. The chemistry of ferrous bis-glycinate chelate. Arch Latinoam Nutr. 2001 Mar; 51(1 Suppl 1):7-12 [PMID: 11688084]
2. Szarfarc SC, de Cassana LM, Fujimori E, Guerra-Shinohara EM, de Oliveira IM. Relative effectiveness of iron bis-glycinate chelate (Ferrochel) and ferrous sulfate in the control of iron deficiency in pregnant women. Arch Latinoam Nutr. 2001 Mar;51(1 Suppl 1):42-7 [PMID: 1688081]
3. Pineda O, Ashmead HD. Effectiveness of treatment of iron-deficiency anemia in infants and young children with ferrous bis-glycinate chelate. Nutrition. 2001 May;17(5):381-4. [PMID:11377130]
4. Garcia-Casal MN, Layrisse M. The effect of change in pH on the solubility of iron bis-glycinate chelate and other iron compounds. Arch Latinoam Nutr. 2001 Mar;51(1 Suppl 1):35-6. [PMID: 11688079].
5. Brodin RE, Gorman JH, Gorman RC, Petschenik AJ, Bradley LB, Kenler HA, Cody RP. Prophylactic iron supplementation after Roux-en-Y gastric bypass: a prospective, double blind, randomized study. Arch Surg. 1998 Jul;133 (7): 740-4. [PMID 9688002]

6 Kantor J, Kessler LJ, Brooks DG, Cotsarelis G. Decreased serum ferritin is associated with alopecia in women. J Invest Dermatol. 2003 Nov;121(5):985-8 [PMID:14708596]

7. Patterson AJ, Brown WJ, Roberts DC. Dietary and supplement treatment of iron deficiency results in improvements in general health and fatigue in Australian women of childbearing age. J Am Coll Nutr. 2001 Aug;20(4):337-42

## Supplement Facts

**Serving Size:** 1 Capsule

**Servings Per Container:** 90

Amount Per Serving		%DV*
Iron (as Ferrochel® Ferrous Bisglycinate Chelate)	28 mg	156%

\* Daily Value based on a 2,000 calorie diet

**Other Ingredients:** rice flour, vegetable cellulose, leucine

**Free of:** milk, egg, fish, peanuts, crustacean shellfish, soy, tree nuts, wheat, yeast and gluten. Free of ingredients derived from GMOs.

**Suggested Use:** Take 1 capsule daily with a meal as a dietary supplement, or as directed by your health practitioner. May take up to 3 capsules in divided doses with meals daily. Store in a cool, dry place.

**Caution:** If you are pregnant, nursing, or taking any medications, consult your health practitioner before use. Discontinue use and consult your health practitioner if any adverse reactions occur. **Keep out of reach of children. Accidental overdose of iron-containing products is a leading cause of fatal poisoning in children under 6. In case of accidental overdose, call a doctor or poison control center immediately.**



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Vegetarian

Gluten Free

Non-GMO

Vegetable Caps

The statements in this document have not been evaluated by the FDA. This product is not intended to diagnose, treat, cure, or prevent any disease.

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