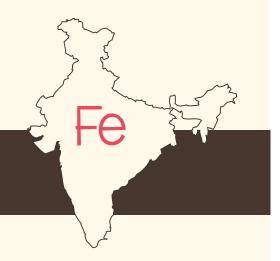
## Leave no Stone Unturned

# Ferronoic Plus



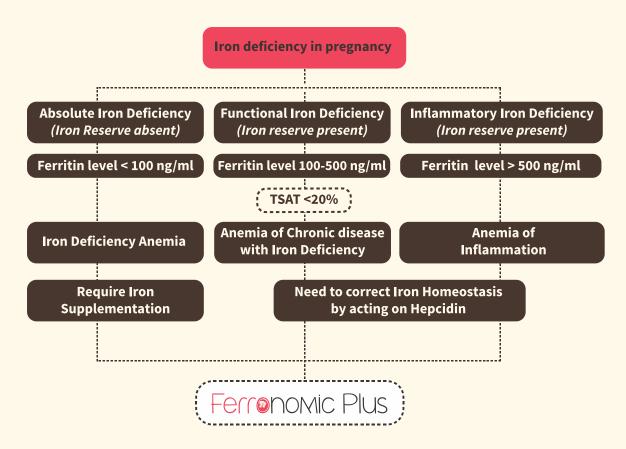


Iron deficiency anemia is extremely common, particularly in the developing countries, reaching a state of global epidemic. Iron deficiency during pregnancy is one of the leading causes of anemia in infants and young children. Many women go through the entire pregnancy without attaining the minimum required intake of iron.



Beside Iron deficiency, chronic inflammation, hyperparathyroidism, infection and blood loss may also contribute to anemia in pregnant women. Based on the Various Characteristics Iron deficiency are of 3 types.

- 1. Absolute or True Iron Deficiency: Absolute iron deficiency is defined by severely reduced or absent storage iron in bone marrow, liver, and spleen.
- 2. Functional Iron Deficiency: Functional iron deficiency is characterized by adequate iron stores but insufficient iron availability for incorporation into erythroid precursors.
- 3. Inflammatory Iron Deficiency: Inflammatory iron block occurs among patients with refractory anemia due to an underlying inflammatory state.



#### Bioavailability:

Iron Supplement	Elemental iron	Bioavailable Iron	Amount Absorbed (mg)
Ferrous sulfate	33%	27%	9
Ferrous ascorbate	12%	40%	4.8
Ferrous fumarate	32%	28%	8.9
Ferrous bisglycinate	19-21%	91%	17-19

## Clinical Evidence

Efficacy of Ferrous bis-glycinate against Ferrous glycine sulphate in the treatment of iron deficiency anemia with Pregnancy

A randomized double-blind clinical trial on 187 pregnant women

**Duration:** 8 weeks

Two Groups:

#### **Group 1: 93 Pregnant Women**

Ferrous bis-glycinate tablet once daily (27 mg elemental Iron)

#### **Group 2: 94 Pregnant Women**

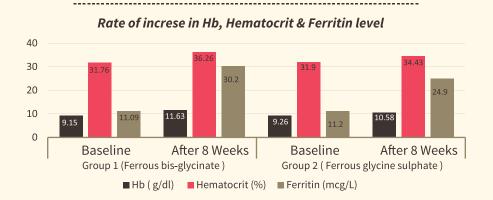
Ferrous glycine sulphate capsule once daily (100 mg elemental Iron)

Primary End Point: Rate of increase in hemoglobin level

Parameters	Group 1 (n=93)		Group 2 (n=94)	
	Baseline	After 8 weeks	Baseline	After 8 weeks
Hemoglobin (g/dL)	9.15 ± 0.61	11.63 ± 0.73	9.26 ± 0.64	10.58 ± 0.82
Hematocrit (%)	31.76 ± 2.06	36.26 ± 1.75	31.90 ± 2.31	34.43 ± 2.36
Ferritin (mcg/L)	11.09 ±2.97	30.2 ± 4.54	11.20 ± 3.31	24.9 ± 4.48



Ferrous bis-glycinate is more efficient in increasing Hb level. Moreover, it has tolerable adverse effects and high compliance than ferrous glycine sulphate.



Int J Reprod Med Gynecol. 2018;4(1): 006-011 J Matern Fetal Neonatal Med. 2018 Jun 20:1-7.

<sup>&</sup>quot;FerronoMIC Plus is a combination of Lactoferrin, GMP, Ferrous bisglycinate and Folic acid for any type of Iron deficiency anemia during pregnancy "



"Unique Formulation for Iron Deficiency Anemia during Pregnancy'

#### **Description:**

Ferronomic Plus consists of Lactoferrin, Disodium Guanosine 5-Monophosphate, Ferrous bisglycinate and Folic acid.

**Lactoferrin** is a non-haem iron-binding protein that is part of the transferrin protein family and differs from transferrin by its higher affinity for iron which is 300 times greater and its ability to retain iron at a pH lower than 4 such as exist. (E.g. in the gastrointestinal tract or inflammatory lesions).

**Disodium Guanosine 5-Monophosphate** is a salt of Guanosine 5-Monophosphate. Ribonucleoside Monophosphate which upon phosphorylation to GTP becomes incorporated into ribonucleic acid (RNAs) by various RNA polymerase(s).

**Ferrous bisglycinate** is a chelate that is used as a source of dietary iron. Forming a ring structure when reacting with glycine, ferrous bisglycinate acts as both a chelate and a nutritionally functional.

*Folic acid* Play a Key role in cell growth and development, especially important during first 12 weeks of pregnancy – to protect baby against neural tube defects

#### Indication:

Ferronomic Plus is indicated for the management of Iron Deficiency Anemia during Pregnancy

#### **Mechanism of Action:**

#### Ferronomic Plus works by the following mechanisms:

- 1. Decreases Hepcidin levels by regulating the Ferroportin Hepcidin Axis
- 2. Reduces ferritin bind iron stores
- ${\it 3. Reduces inflammatory pathways further affecting Hepcidin}\\$
- 4. Improves Ferroportin stabilization via GMP

#### **Dosage & Administration:**

1-2 Tablets a day or as suggested by Healthcare Professional.

### Advantages of Ferronomic Plus in Iron deficiency anemia during pregnancy-

- Effective increase of Hemoglobin and systemic Iron Levels
- Less likely to cause intestinal side effects such as nausea, constipation and bloating
- Restoration of Iron Homeostasis
- Ferrous bisglycinate has at least two-fold higher biovailability/absorption compared to "conventional" iron salts, e.g., ferrous sulfate and ferrous fumarate.
- Folic acid protect baby against neural tube defects
- Useful in the treatment of both True/absolute iron deficiency anemia as well as Functional Iron deficiency anemia



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