

# IRON SUPPLEMENTS

## A guide for midwives

Oral iron supplements are available in a range of formulations. Amount of elemental iron (iron available for absorption) and rate of absorption varies by formulation. The table below lists elemental iron content for a selection of popular oral formulations and estimated cost of treatment at a standard therapeutic dose of 100 mg elemental iron per day.

Information in this handout is based on best available sources and is as complete as possible. Cost estimates are approximate and based on listed prices at major retailers (2015).

### FERROUS SALTS Inexpensive and well-absorbed, but associated with gastrointestinal side-effects. All formulations have similar rates of absorption and side effect profiles.

Formulation	Brand name / Manufacturer	Dose	Elemental iron/dose	Amt needed to reach 100 mg/day	One month treatment (100 mg/day) Quantity	Cost	Notes Other vitamins and minerals	Diet considerations
Ferrous Gluconate	Iron 50 mg Timed Release / Jamieson	50 mg	50 mg	2 capsules	1 bottle	\$9.96	Enteric-coated	V
	Ferrous Gluconate / Life	306 mg	35 mg	3 tablets	1 bottle	\$4.76	Enteric-coated	V GF LF SF
	Floradix Iron Tablet / Salus	~ 25 mg	10 mg	10 tablets	4 boxes	\$82.46		V DF K
	Floradix / Salus	10 mL	10 mg	100 mL syrup	6 x 500 mL bottles	\$239.94	B6, B12, C, riboflavin, thiamine	V DF K
	Floravit / Salus	10 mL	10 mg	100 mL syrup	12 x 250 mL bottles	\$251.88	B6, B12, C, riboflavin, thiamine	V DF YF K
Ferrous Sulphate	Ferodan / Odan	5 mL	30 mg	15 mL syrup	2 x 250 mL bottles	\$26.81		
	Spatone Pur-Absorb Iron / Nelsons Bach USA	50 mL	5 mg	20 liquid sachets	22 boxes	\$706.93		GF LF
	Ferrous Sulfate / Life	300 mg	60 mg	2 tablets	2/3 bottle	\$5.99	Enteric-coated	V GF LF SF
	Ferrotrate / Nutrichem	137 mg	27 mg	4 capsules	1 bottle	\$23.19	C	Vg GF SF
Ferrous Fumarate	Palafer / Valeant	300 mg	100 mg	1 capsule	1 package	\$12.65		
	Palafer / Valeant	5 mL	100 mg	5 mL syrup	1.5 x 100 mL bottles	\$22.19		
	Palafer Cf Prenatal / Valeant	300 mg	100 mg	1 capsule	1 package	\$19.99	C, Folate	
	Ferrous Fumarate / Life	200 mg	65.7 mg	2 tablets	2/3 bottle	\$4.19		GF LF SF
	Euro-Fer / Euro-Pharm	300 mg	100 mg	1 capsule	1 bottle	\$7.65		
	Iron Factors / Natural Factors	~ 300 mg	35 mg	3 capsules	1 bottle	\$8.85	B12, C, folate, manganese	

### FERRIC SALTS Not as well-absorbed as ferrous salts.

Formulation	Brand name / Manufacturer	Dose	Elemental iron/dose	Amt needed to reach 100 mg/day	One month treatment (100 mg/day) Quantity	Cost	Notes Other vitamins and minerals	Diet considerations
Ferric Pyrophosphate	IRONsmart / Lorna Vanderhaeghe	~ 20 mg	15 mg	6 capsules	3 bottles	\$58.47	folate, riboflavin	Vg GF
	IRONsmart Liquid / Lorna Vanderhaeghe	5 mL	10 mg	50 mL syrup	3 x 500 mL bottles	\$110.88		Vg GF
	Ortho Iron / AOR	358 mg	30 mg	3 capsules	3 bottles	\$112.47	B6, B12, C, folate, copper	V LF
	Hemoplex Liquid / Nu-Life	10mL	10 mg	100 mL syrup	6 x 100 mL bottles	\$140.40	B6, B12, C, folate, thiamine, riboflavin, niacinamide	

#### ABBREVIATIONS

<b>V</b> Vegetarian	<b>GF</b> Gluten-free	<b>WF</b> Wheat-free
<b>Vg</b> Vegan	<b>DF</b> Dairy-free	<b>YF</b> Yeast-free
<b>ov</b> NOT vegetarian	<b>LF</b> Lactose-free	<b>K</b> Kosher
	<b>SF</b> Soy-free	<b>H</b> Halal

## OTHER FORMULATIONS

Most are promoted as having fewer GI side effects than ferrous or ferric salts.

Formulation	Brand name / Manufacturer	Dose	Elemental iron/dose	Amt needed to reach 100 mg/day	One month treatment (100 mg/day) Quantity	Cost	Notes Other vitamins and minerals	Diet considerations
Chelated Iron / Iron Bisglycinate	Sisu Gentle Iron / Sisu	25 mg	25 mg	4 capsules	2 bottles	\$16.28		V
	CanPrev Iron / CANPrev	~ 150 mg	20 mg	5 capsules	1 2/3 bottles	\$39.98	B6, B12, C, folate, copper, magnesium	Vg GF SF
	Mild Iron / Life	~ 100 mg	28 mg	4 capsules	1.3	\$12.65	B12, C, folate	GF LF SF
	EasyIron / Platinum Naturals	~ 100 mg	18 mg	5 capsules	2.5 bottles	\$90.60	B6, B12, C, folate	V DF
	Iron Chelate / Natural Factors	25 mg	25 mg	4 capsules	1 1/3 bottles	\$10.67		
Carbonyl Iron	Ferro-C / Douglas Laboratories	~ 500 mg	27 mg	4 capsules	2 bottles	\$35.98	B, B12, C, E, folate, riboflavin, thiamine, niacinamide	
Polysaccharide-Iron Complex	FeraMAX Powder / BioSyent Pharmat	1/4 tsp	15 mg	1.5 tsp powder	1.5 bottles	\$44.99	Mix in liquids or soft foods	V
	FeraMAX Powder / BioSyent Pharmat	150 mg	150 mg	1 capsule	1/3 bottles	\$21.30	Capsules may be opened & sprinkled on food	GF LF K H
<b>Combinations</b>								
<i>ferrous fumarate iron citrate iron bisglycinate</i>	Hemoplex / Nu-Life	~ 800 mg	45 mg	2 capsules	0.5 bottle	\$16.50	B6, B12, C, folate, calcium, cobalt, manganese, copper, niacinamide, iodine, riboflavin, zinc, thiamine	
<i>iron citrate iron malate iron bisglycinate</i>	Opti-Iron 25 / Nu-Life	~ 750 mg	25 mg	4 capsules	2 bottles	\$35.98	C, copper, calcium	
<i>ferrous succinate 250 mg liquid liver fractions (heme iron)</i>	Enzymatic Therapy Ultimate Iron Complex / Nature's Way	~ 350 mg	25 mg	4 capsules	1 1/3 bottles	\$21.92	B12, C, folate	
Heme Iron	Proferrin / Colorado Biolabs	11 mg	11 mg	9 tablets	3 bottles	\$177.87	Derived from bovine hemoglobin	Ⓞv
Heme Iron	Blood Builder / MegaFood	~ 625 mg	26 mg	4 tablets	1 1/3 bottles	\$57.32	Pesticide-free B12, C, folate	Vg GF SK K

### Maximizing iron tolerability

- Offer clients a lower starting dose (50-80 mg/day). Build to a higher dose (100-200 mg/day) over five days OR offer two weeks at lower dose and test for response. Increase dose PRN.
- While iron absorption is best when taken on an empty stomach, GI side-effects are reduced when taken with food.
- Taking iron before bed may reduce GI upset.

### Maximizing iron absorption

- Take 200 mg of vitamin C for 30 mg of iron. Vitamin C is often added to iron supplements, but rarely in amounts sufficient to aid iron absorption.
- Avoid calcium within one to two hours of taking iron supplements (dairy, antacids, or other supplements).
- Avoid coffee and black tea for one to two hours after taking iron.
- Avoid enteric-coated supplements. Enteric coating decreases GI side-effects but also interferes with absorption.

### Prescribing iron

Writing a prescription for over-the-counter products like iron or prenatal vitamins may allow for coverage by extended benefits plans and the Ontario Drug Benefits Program.

Rx: Ferrous fumarate  
200 mg  
100 tabs  
2X daily, between meals  
Refill X2  
midwife signature  
registration #

### Sources

Comparison of oral iron supplements. Pharm Lett. 2008;24(8):240811. | Fei C. Iron deficiency anemia: a guide to oral iron supplements. Clinical Correlations. 2015. Available from: <http://www.clinicalcorrelations.org/?p=8405>. | Guidelines and Protocols Advisory Committee. Iron Deficiency - Investigation and Management. British Columbia Medical Association, editor. British Columbia Ministry of Health Services; 2010. | Pavord S, Myers B, Robinson S, Allard S, Strong J, Oppenheimer C, et al. UK guidelines on the management of iron deficiency in pregnancy. Br J Haematol. 2012 Mar;156(5):588-600. | MIDIRS. Anemia in pregnancy, birth and afterwards for professionals. 2010.