

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 (2020).

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 | \$11.65 | Enteric-coated | V GF LF |
| | Ferrous Gluconate / Life | 306 mg | 35 mg | 3 tablets | 1 bottle | \$4.76 | Enteric-coated | V GF LF SF YF |
| | Floradix Iron Tablet / Salus | 25 mg | 10 mg | 10 tablets | 3.75 boxes | \$82.46 | B1, B2, B3, B6, B12, C, folic acid | V DF K YF |
| | Floradix / Salus | 10 mL | 10 mg | 100 mL syrup | 6 x 500 mL bottles | \$239.94 | B1, B2, B6, B12 | V K LF |
| | Floravit / Salus | 10 mL | 10 mg | 100 mL syrup | 4.25 x 700 mL bottles | \$233.70 | B1, B2, B6, B12 | V _G YF LF K |
| Ferrous Sulphate | Ferrous Sulfate / Life | 300 mg | 60 mg | 2 tablets | 2/3 bottles | \$5.99 | Enteric-coated | V GF LF SF YF |
| | Ferrotrate / Nutrichem | 137 mg | 27 mg | 4 capsules | 1.3 bottles | \$37.69 | C | V _G GF SF YF |
| Ferrous Fumarate | Palafer / Bausch | 300 mg | 100 mg | 1 capsule | 1 package | \$32.49 | | |
| | Palafer cf / Bausch | 300 mg | 100 mg | 1 capsule | 1 package | \$39.98 | C, folic acid | |
| | Ferrous Fumarate / Life Brand | 200 mg | 65.7 mg | 1.5 capsules | 1/2 bottle | \$3.00 | | GF LF SF YF |
| | Fera-Pro / Replete Nutraceuticals | 600 mg | 150 mg | 1 capsule | 1/3 bottle | \$16.00 | B12, C, folate, glycine | V _G DF GF |
| | Fera-Pro / Replete Nutraceuticals | 350 mg | 75 mg | 2 capsules | 2/3 bottle | \$29.00 | B12, C, folate, glycine | V _G DF GF |
| | Fera-Pro / Replete Nutraceuticals | 300 mg | 30 mg | 4 capsules | 1.2 bottles | \$58.80 | B12, C, folate, glycine | V _G DF GF |
| | Iron Factors / Natural Factors | 87 mg | 35 mg | 3 capsules | 1 bottle | \$17.67 | B12, C, folic acid | |

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 | 7 capsules | 4 bottles | \$76.60 | B2, folic acid | V _G DF GF SF |
| | Ortho Iron / AOR | 358 mg | 30 mg | 4 capsules | 4 bottles | \$143.80 | B6, B12, C, folic acid, zinc, copper | V GF |
| | Ortho Iron Vegan / AOR | 284 mg | 30 mg | 4 capsules | 2 bottles | \$71.90 | B6, B12, C, folic acid, zinc, copper | V _G DF GF |
| | Hemoplex Liquid / Nu-Life | 10 mL | 10 mg | 100 mL | 6 bottles | \$187.32 | B1, B6, B12, C, folic acid, riboflavin, niacinamide | V DF GF YF |

ABBREVIATIONS

| | | |
|----------------------------|------------------------|----------------------|
| V Vegetarian | GF Gluten-free | WF Wheat-free |
| V_G Vegan | NF Nut-free | YF Yeast-free |
| ⓪v NOT vegetarian | LF Lactose-free | K Kosher |
| DF Dairy-free | SF Soy-free | H Halal |

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

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.

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 | \$22.98 | Enteric coated, folic acid | V DF GF SF |
| | Iron Bis-Glycinate 20 / CANPrev | ~387 mg | 20 mg | 5 capsules | 1.6 bottles | \$41.58 | B6, B12, C, folic acid, magnesium, copper | VG DF GF SF WF |
| | Mild Iron / Life | ~100 mg | 28 mg | 4 capsules | 1.3 bottles | \$12.65 | B12, C, folate | GF LF SF |
| | EasyIron / Platinum Naturals | ~100 mg | 18 mg | 6 capsules | 1.5 bottles | \$62.28 | B6, B12, C, folate | DF GF YF |
| | Gentle Iron / Nature's Bounty | ~100 mg | 28 mg | 4 capsules | 1.3 bottles | \$12.72 | B12, C, folate | |
| | Chelazome Iron / Trophic | 125 mg | 25 mg | 4 caplets | 1.3 bottles | \$16.18 | | VG DF GF SF WF YF |
| Carbonyl Iron | Ferro-C / Douglas Laboratories | ~270 mg | 27 mg | 4 capsules | 2 bottles | \$52.24 | B6, B12, C, E, folate, riboflavin, thiamine, niacinamide | |
| | Carbonyl Iron/Pure Lab Vitamins | ~122.5 mg | 22.5 mg | 5 capsules | 1.7 bottles | \$39.02 | C | VG DF GF SF WF YF H |
| Polysaccharide-Iron Complex | Bio-Ferra / Cyto-Matrix | 5mL | 20 mg | 25 mL | 2.5 bottles | \$73.73 | | VG |
| | FeraMAX 150 / BioSyent Pharma | 150 mg | 150 mg | 1 capsule | 1 package | \$34.00 | | VG |
| Combinations | | | | | | | | |
| <i>ferrous fumarate iron citrate iron bisglycinate</i> | Iron Therapy/Nu-Life | 145 mg | 35 mg | 3 capsules | 1.5 bottles | \$42.53 | B2, B6, B12, C, folic acid, lactobacillus acidophilus | VG DF GF NF SF YF |
| <i>ferrous succinate 250 mg liquid liver fractions (heme iron)</i> | Enzymatic Therapy Ultimate Iron Complex / Nature's Way | ~335 mg | 25 mg | 4 capsules | 1.3 bottles | \$25.99 | B12, C, folate, liquid liver fractions | |
| Heme Iron | Proferrin / Colorado Biolabs | 11 mg | 11 mg | 9 tablets | 3 bottles | \$245.85 | Derived from bovine hemoglobin | Ⓞv |
| Heme Iron | Opti-fer Alpha / Volo Healthcare | 11 mg | 11 mg | 9 tablets | 4.5 bottles | \$215.96 | Derived from bovine hemoglobin, no gelatin | GF H |
| Non-heme Iron | Blood Builder / MegaFood | ~166 mg | 26 mg | 4 tablets | 1.3 bottles | \$72.27 | B12, C, folate, beet root | VG DF GF SF K |
| Non-heme iron | Vitamin Code RAW Iron / Garden of Life | ~417 mg | 22 mg | 5 capsules | 5 bottles | \$112.45 | B12, C, folate, organic fruit and vegetable blend, probiotics | VG GF K |
| Non-heme iron | Nova Scotia Organics Iron + Vitamin C / Naturally Nova Scotia Organics | ~79 mg | 9 mg | 11 caplets | 5.5 bottles | \$186.23 | C, curry leaf and acerola berry extract | V |

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.

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.