



## Appendix D: Pediatric iron doses and liquid formulations

This Appendix is a supplement to the *BC Guideline Iron Deficiency – Investigation and Management*. Refer to page 7 for guidance on diagnosis, monitoring and treatment of iron deficiency and iron deficiency anemia in children.

- **Advise patients that iron can be toxic to children and should always be safely stored.**
- Provide dietary counselling. Dietitian referral is recommended. Patients and caregivers can call a dietitian at 8-1-1. Refer to Associated Documents for recommended dietary intake and a list of iron-rich foods.
- Recommend infants and toddlers with iron deficiency begin treatment with liquid oral iron.
- It is important to specify the strength (in mg elemental Fe/mL) in addition to dosing instructions (often in mL) to aid in selection of the intended product and prevent dosing errors. Remind patients that products are kept behind the counter in the pharmacy and to see a pharmacist to confirm the product.

### Recommended treatment doses of elemental iron for infants and toddlers<sup>32</sup>

Age group	Dose	Daily maximum
Infants up to 12 months	Up to 3 mg of elemental Fe/kg/day (including iron from formula and other sources)	15 mg/day
Toddlers 12 months and over	3–6 mg elemental Fe/kg/day in either once a day or divided doses	60 mg/day

### Pediatric liquid iron products

Iron Product	Formulation (elemental iron)	Available Package Sizes	Therapeutic Considerations <sup>21, 42</sup>	Cost per 30 Days and Pharmacare Coverage <sup>‡‡</sup>
ferrous sulfate	Suspension 30mg/mL (6 mg Fe/mL)	250, 500 mL bottles	<ul style="list-style-type: none"> <li>• Liquid iron formulations may stain teeth. This can be prevented by drinking through a straw or mixing with water or fruit juice.</li> <li>• For optimal absorption, iron salts (ferrous sulfate or fumarate) should be taken on an empty stomach with water or juice, and not with dairy.</li> <li>• To reduce adverse GI reactions with iron salts, start with a low dose and increase gradually after 4 to 5 days. If bothersome, take initially with food and gradually shift the timing away from meals to improve absorption.</li> </ul>	\$4/500 mg Fe (Regular benefit)
	Drops 75mg/mL (15 mg Fe/mL)	50 mL bottles		\$7/500 mg Fe (Regular benefit)
ferrous fumarate	Suspension 60 mg/mL (20 mg Fe/mL)	100 mL bottles		\$3/500 mg Fe (Regular benefit)

- Adverse GI reactions (nausea, vomiting, dyspepsia, constipation, diarrhea, and dark stools) are dependent on the dose of elemental iron. These adverse reactions are temporary and will likely disappear with continued treatment, with the exception of dark stools which can remain for the duration of therapy. If poor tolerability with oral iron, consider a lower dose, a different formulation or alternative dosing schedules (such as every other day dosing).<sup>22</sup> Resolution of symptoms and replenishment of iron stores may take longer.

‡‡ Prices are estimates as of January 2019. All prices are subject to change.