

Appendix A – Dietary Aspects of Iron

Foods contain iron in two forms: “Heme” iron is present in red meat, fish and poultry, while the non-heme iron is present in fruits, vegetables, cereals and dairy products etc. “Heme” iron is absorbed very well (15-35% vs. 2-5% non-heme iron), and its absorption is independent of other factors present in food, while absorption of non-heme iron is markedly affected by other factors: Factors that inhibit iron absorption include decreased gastric acidity, *Helicobacter pylori* infection, tannins (tea), polyphenols (coffee, herbal teas and cocoa containing beverages – taken within one hour of the meal), phytates (legumes, grains, rice) and calcium and phosphate (antacids and calcium tablets). Factors that enhance absorption of non-heme iron are: meat, citrus juices, vitamin C (e.g. from broccoli, strawberries, tomato, spinach, citrus fruit), and EDTA fortification of foods.

Recommended Daily Dietary Allowance for Iron		
Men	Adult	8 mg
Women	Adult (age 50 on)	8 mg
	Adult (ages 19 to 50)	18 mg
	Pregnant	27 mg
	Lactating	9 mg to 10 mg
Adolescents (ages 9 to 18)	Girls	8 mg to 15 mg
	Boys	8 mg to 11 mg
Children (birth to age 8)	Ages 4 to 8	10 mg
	Ages 1 to 3	7 mg
	Infants (7 months to 1 year)	11 mg
	Infants (birth to 6 months)	0.27 mg

Table cited from: Panel on Micronutrients, Food and Nutrition Board, Institute of Medicine–National Academy of Sciences (2001). Dietary reference intakes: Recommended intakes for individuals, vitamins. *Dietary Reference Intakes for Vitamin A, Vitamin K, Arsenic, Boron, Chromium, Copper, Iodine, Iron, Manganese, Molybdenum, Nickel, Silicon, Vanadium, and Zinc*, pp. 772–773. Washington, DC: National Academy Press.

Foods with Heme Iron[‡]

Food, 75g, 2½ oz (iron values or amounts are for cooked meat, fish, shellfish and poultry)	Iron (mg)
Clams	21.0
*Liver, pork	13.4
*Liver, Chicken	8.7
Oysters	6.4
Mussels	5.0
*Liver, beef	4.9
Beef	2.4
Shrimp	2.3
Sardines	2.0
Turkey/Lamb	1.5

*Pregnant women should not eat liver. It has a very large amount of vitamin A, which can be harmful to the fetus. Liver is high in cholesterol, so people with high blood cholesterol levels should not eat it often.

[‡]Tables adapted from HealthLink BC. *Iron Content in Foods*. Nutrition Series HealthLink BC File #68d, September 2007; [5 screens]. Accessed October 15th, 2009.

Resources

HealthLink BC: www.HealthLinkBC.ca

In B.C. dial 8-1-1 for easy access to non-emergency health information and services.

TTY (deaf and hearing-impaired) call 7-1-1. Translation services are available in over 130 languages on request.

HealthLink BC Dietician Services: www.HealthLinkBC.ca

Dial 8-1-1 for free nutrition information and resources for B.C. residents.

TTY (deaf and hearing-impaired) call 7-1-1.

Foods with Non-Heme Iron[†]

Food	Serving	Iron (mg)
Pumpkin seeds, kernels, roasted	60 mL (1/4 cup)	8.6
Tofu, medium firm or firm	150g (3/4 cup)	2.4 – 8.0 [†]
Infant cereal, dry	28g (10 Tbsp)	6 – 7 [†]
Soybeans, dried, boiled	175 mL (3/4 cup)	6.5
Instant enriched oatmeal	1 package	4.2 – 6.0 [†]
Lentils, cooked	175 mL (3/4 cup)	4.9
Enriched cold cereal	30g	4.0 [†]
Dark red kidney beans, boiled	175 mL (3/4 cup)	3.9
Blackstrap molasses	15 mL (1 Tbsp)	3.6
Refried beans	175 mL (3/4 cup)	3.1

[†]Note: Iron amounts in enriched foods vary; check the label for accurate information. If the iron amount is given as a percentage of the daily value (DV), the standard used is 14 mg (or 7 mg for infant cereals). For example, if a serving of cereal has 25% of the daily value, it has 3.5 mg of iron (0.25 x 14 mg).