



## Iron in Your Child's Diet

### WHY IS IRON IMPORTANT?

Iron is very important, especially for children, to make sure the body's cells get enough oxygen. Without enough iron, children develop anemia since they can't produce enough red blood cells. If you don't have enough iron in the body, it can be hard for your brain to work at its best, hard to think well or to remember things well. So it's very important for development and learning. Incredibly, iron deficiency is one of the most common nutrient deficiencies for children in the United States. It is estimated that up to 15% of toddlers are iron deficient!

### HOW MUCH IRON DOES A CHILD OR ADOLESCENT NEED?

- 0-6 months: Full-term babies have iron stores that last until 4-6 months and do not need supplements. Premature babies may need a daily iron supplement for a while.
- 6-12 months: 11mg/day
- 1-3 years: 7mg/day
- 4-8 years: 10 mg/day
- 9-13 years: 8 mg/day
- 14-18 years (girls): 15 mg/day
- 14-18 years (boys): 11 mg/day

It is important that children eat foods rich in iron – even when starting to introduce solid foods to young babies. Animal proteins (like beef, turkey, and shellfish) are very good sources of iron. The type of iron found in these animal sources (“heme iron”) is absorbed into the body much more easily (up to 5 times better) than from non-animal sources (“non-heme iron”). But plant sources and supplements with non-heme iron are good as well. For example, spinach, peas, soybeans and lentils are naturally high in iron. Cooking in cast iron gives a bit also, especially when cooking foods with vitamin C, like tomato sauce or cabbage. Baby cereals are fortified with iron and mix easily with everything. If your child is over 6 months old and not eating much iron-rich food, please talk to us about whether or not an iron supplement is necessary.

One way to help iron be absorbed into our bodies is to eat it along with foods high in vitamin C (for example, red pepper, peach, orange, papaya, tomato, kiwi, cantaloupe, strawberries, cabbage). Unfortunately, even though we need calcium to make strong bones, calcium binds to iron and makes it harder to absorb the iron into our bodies. So even though foods with calcium (like milk, cheese and yogurt) are very important, try to have some of your iron-rich foods at other times. Limit total amount of dairy (milk, cheese and yogurt) to 20 oz. per day. If you are taking an iron supplement, take it with juice or water, not with milk.

We may suggest a blood test near the first birthday as a screening for iron deficiency. If you have any questions, please let us know.

### IRON CONTENT IN FOODS?

See the table on the back of this handout for a list of iron content in common foods – both heme iron (animal-derived, better absorption), and non-heme iron (plant-derived and lesser absorption).



**Foods to Increase Iron Intake**

**Commercial baby food,<sup>a</sup> heme iron**

Meat

	Elemental Iron mg
Baby food, lamb, junior, 1 jar (2.5 oz)	1.2
Baby food, chicken, strained, 1 jar (2.5 oz)	1.0
Baby food, lamb, strained, 1 jar (2.5 oz)	0.8
Baby food, beef, junior, 1 jar (2.5 oz)	0.7
Baby food, beef, strained, 1 jar (2.5 oz)	0.7
Baby food, chicken, junior, 1 jar (2.5 oz)	0.7
Baby food, pork, strained, 1 jar (2.5 oz)	0.7
Baby food, ham, strained, 1 jar (2.5 oz)	0.7
Baby food, ham, junior, 1 jar (2.5 oz)	0.7
Baby food, turkey, strained, 1 jar (2.5 oz)	0.5
Baby food, veal, strained, 1 jar (2.5 oz)	0.5

**Commercial baby food,<sup>a</sup> nonheme iron**

Vegetables

Baby food, green beans, junior, 1 jar (6 oz)	1.8
Baby food, peas, strained, 1 jar (3.4 oz)	0.9
Baby food, green beans, strained, 1 jar (4 oz)	0.8
Baby food, spinach, creamed, strained, 1 jar (4 oz)	0.7
Baby food, sweet potatoes, junior (6 oz)	0.7

Cereals

Baby food, brown rice cereal, dry, instant, 1 tbsp	1.8
Baby food, oatmeal cereal, dry, 1 tbsp	1.6
Baby food, rice cereal, dry, 1 tbsp	1.2
Baby food, barley cereal, dry, 1 tbsp	1.1

Infant Formula 5 oz

**Table food, heme iron**

Clams, canned, drained solids, 3 oz	23.8
Chicken liver, cooked, simmered, 3 oz	9.9
Oysters, Eastern canned, 3 oz	5.7
Beef liver, cooked, braised, 3 oz	5.6
Shrimp, cooked moist heat, 3 oz	2.6
Beef, composite of trimmed cuts, lean only, all grades, cooked, 3 oz	2.5
Sardines, Atlantic, canned in oil, drained solids with bone, 3 oz	2.5
Turkey, all classes, dark meat, roasted, 3 oz	2.0
Lamb, domestic, composite of trimmed retail cuts, separable lean only, choice, cooked, 3 oz	1.7

Fish, tuna, light, canned in water, drained solids, 3 oz	1.3
Chicken, broiler or fryer, dark meat, roasted, 3 oz	1.1
Turkey, all classes, light meat, roasted, 3 oz	1.1
Veal, composite of trimmed cuts, lean only, cooked, 3 oz	1.0
Chicken, broiler or fryer, breast, roasted, 3 oz	0.9
Pork, composite of trimmed cuts (leg, loin, shoulder), lean only, cooked, 3 oz	0.9
Fish, salmon, pink, cooked, 3 oz	0.8

**Table food, nonheme iron**

Oatmeal, instant, fortified, cooked, 1 cup	14.0
Blackstrap molasses, <sup>b</sup> 2 tbsp	7.4
Tofu, raw, regular, 1/2 cup	6.7
Wheat germ, toasted, 1/2 cup	5.1
Ready-to-eat cereal, fortified (different levels), 1 cup	~4.5 to 18
Soybeans, mature seeds, cooked, boiled, 1/2 cup	4.4
Apricots, dehydrated (low-moisture), uncooked, 1/2 cup	3.8
Sunflower seeds, dried, 1/2 cup	3.7
Lentils, mature seeds, cooked, 1/2 cup	3.3
Spinach, cooked, boiled, drained, 1/2 cup	3.2
Chickpeas, mature seeds, cooked, 1/2 cup	2.4
Prunes, dehydrated (low-moisture), uncooked, 1/2 cup	2.3
Lima beans, large, mature seeds, cooked, 1/2 cup	2.2
Navy beans, mature seeds, cooked, 1/2 cup	2.2
Kidney beans, all types, mature seeds, cooked, 1/2 cup	2.0
Molasses, 2 tbsp	1.9
Pinto beans, mature seeds, cooked, 1/2 cup	1.8
Prunes, dehydrated (low moisture), stewed, 1/2 cup	1.6
Raisins, seedless, packed, 1/2 cup	1.6
Prune juice, canned, 4 fl oz	1.5
Green peas, cooked, boiled, drain, 1/2 cup	1.2
Enriched white rice, long-grain, regular, cooked, 1/2 cup	1.0
Whole egg, cooked (fried or poached), 1 large egg	0.9
Enriched spaghetti, cooked, 1/2 cup	0.9
White bread, commercially prepared, 1 slice	0.9
Whole-wheat bread, commercially prepared, 1 slice	0.7
Spaghetti or macaroni, whole wheat, cooked, 1/2 cup	0.7
Peanut butter, smooth style, 2 tbsp	0.6
Brown rice, medium-grain, cooked, 1/2 cup	0.5

Note that all figures are rounded.

<sup>a</sup> Baby food values are generally based on generic jar, not branded jar; 3 oz of table-food meat = 85 g; a 2.5-oz jar of baby food = 71 g (an infant would not be expected to eat 3 oz [approximately the size of a deck of cards] of pureed table meat at a meal).

<sup>b</sup> Source of iron value was obtained from a manufacturer of this type of molasses.

Source of iron values in foods: US Department of Agriculture, Agricultural Research Service. USDA National Nutrient Database for Standard Reference, Release 20: Nutrient Data Laboratory home page. Available at: [www.ars.usda.gov/ba/bhnrc/ndl](http://www.ars.usda.gov/ba/bhnrc/ndl).