

# Getting Enough Iron

## What is Iron?

Iron is an essential mineral that your body uses to make haemoglobin. Haemoglobin is a part of your red blood cells that is responsible for carrying oxygen through your body. If you do not have enough iron, your body makes fewer and smaller red blood cells. Then your body has less hemoglobin, and you cannot get enough oxygen through the body - this is called iron deficiency anemia.

## What are symptoms of iron deficiency?

- Pale looking
- Changes in mood - irritable
- Headache
- Difficulty concentrating
- Dizziness
- Short of Breath
- Fatigue



## What Causes iron deficiency?

- ❖ Diet lacking in iron sources
- ❖ Inability to absorb iron well (seen in Celiac disease or when part of the stomach or small intestine has been removed)
- ❖ Heavy bleeding inside the body
- ❖ Heavy menstrual bleeding
- ❖ Lack of hormone to produce hemoglobin as in chronic kidney disease

## Why is diet important?

Getting enough iron in your diet can help prevent iron deficiency.

## Recommended Dietary Allowance for Iron (mg/day)

Ages	Male (mg)	Female (mg)
0-6 months	0.27	0.27
7-12 months	11	11
1-3 years	7	7
4-8 years	10	10
9-13 years	8	8
14-18 years	11	15
19-30 years	8	18
31-50 years	8	18
51-70 years	8	8
> 70 years	8	8
Pregnancy		27

Recommended intakes for vegetarians, people who do not eat meat, fish or poultry, are almost twice as much as those who do. You can estimate your recommendations by multiplying the RDA by 1.8. For example, the RDA for vegetarian women, 19-50 years of age, would be 32 mg of iron per day.

There are two forms of iron found in foods - heme iron and non-heme iron:

Heme Iron	Non-Heme Iron
more readily absorbed by the body (approximately 23% of the iron consumed is absorbed)	is not absorbed as well as heme iron (only 3-8% of the iron consumed is absorbed)
absorption is not changed by other foods	absorption can be increased or decreased by other foods
found only in meat, fish and poultry	found in vegetables, fruit, grains and eggs
* See the attached list of "sources of iron" for a list of heme vs. non-heme sources of iron	

**Here are some tips to help you meet your daily iron requirements:**

- Include at least one iron-rich food at each meal.
- Add cooked dried beans or lentils to soups, stews or casseroles.
- Choose breakfast cereals and flour that are fortified/enriched with iron.
- Choose dark green and orange vegetables and fruits more often. For example, choose spinach instead of lettuce for your salad.
- Have spaghetti with tomato meat sauce rather than cream sauce.
- Choose dried fruit as a snack more often.
- Add raisins or other dried fruit to cereal or in your favorite cookie/muffin recipe.
- To increase absorption of non-heme sources of iron:
  - Include a source of vitamin C (citrus fruits and juices, cantaloupe, strawberries, broccoli, peppers, tomatoes) when eating high iron foods.
  - Avoid drinking coffee or tea with meals as this may decrease non-heme iron absorption - have these beverages after a meal
- Read the *Nutrition Facts* box on packaged foods and choose those foods that are high in iron.



## Label Reading to help meet your iron requirements:

<b>Nutrition Facts</b>	
<b>Valeur nutritive</b>	
Per 1 bowl (300 g) / Pour 1 bol (300 g)	
Amount	% Daily Value
Teneur	% valeur quotidienne
<b>Calories / Calories</b> 440	
<b>Fat / Lipides</b> 19 g	<b>29 %</b>
Saturated / Saturés 4 g	<b>21 %</b>
+ Trans / Trans 0.2 g	
<b>Cholesterol / Cholestérol</b> 35 mg	
<b>Sodium / Sodium</b> 860 mg	<b>36 %</b>
<b>Carbohydrate / Glucides</b> 53 g	<b>18 %</b>
Fibre / Fibres 4 g	<b>16 %</b>
Sugars / Sucres 6 g	
<b>Protein / Protéines</b> 15 g	
Vitamin A / Vitamine A	45 %
Vitamin C / Vitamine C	4 %
Calcium / Calcium	20 %
Iron / Fer	20 %



### Percent Daily Value:

The % Daily Value puts nutrients on a scale from 0% to 100%. This scale tells you if there is a little or a lot of a nutrient in one serving of a packaged food. Look for foods that have a higher % Daily Value of Iron.

## Iron Supplements:

Your doctor may recommend you take an iron supplement. You can get the most benefit from iron pills if you take them with vitamin C or drink orange juice. Do not take your iron pills with milk, caffeine, foods with high fibre, antacids, or calcium supplements.

Dietitian: \_\_\_\_\_

Contact: \_\_\_\_\_

## Sources of Iron

Excellent Sources (3.5 mg or more)	Good Sources (2.1 to 3.4 mg)	Sources (0.7 to 2.0 mg)
<b>Heme Iron - animal source</b>		
<ul style="list-style-type: none"> <li>• Beef liver (3 oz)</li> <li>• Clams, 4 large or 9 small</li> </ul>	<ul style="list-style-type: none"> <li>• Beef, lean (3 oz)</li> <li>• Oysters, 3</li> </ul>	<ul style="list-style-type: none"> <li>• Corned beef (2 oz)</li> <li>• Canned sardines (2)</li> <li>• Egg yolk (1)</li> <li>• Chicken and turkey (3 oz)</li> <li>• Ham, lamb and pork (3 oz)</li> <li>• Tuna and salmon (3 oz)</li> <li>• Perch, halibut, bass (3 oz)</li> <li>• Clam chowder, canned (1/2 cup)</li> </ul>
<b>Non-Heme Iron - plant sources</b>		
<ul style="list-style-type: none"> <li>• Tofu, regular or firm (1/4 cup)</li> <li>• Soybeans, white beans, lentils, cooked (1/2 cup)</li> <li>• Blackstrap molasses (1 tbsp)</li> <li>• Fortified whole grain cold cereals such as Corn Bran™, Raisin Bran™, Shreddies™ (1 cup)</li> <li>• Fortified hot cereals such as Cream of Wheat™ (instant), Quaker Oatmeal™ (instant) (1 pouch)</li> <li>• Pumpkin, squash seeds, dry (1/4 cup)</li> </ul>	<ul style="list-style-type: none"> <li>• Spinach, cooked (1/2 cup)</li> <li>• Potato with skin (1 medium)</li> <li>• Egg noodles, cooked (1 cup)</li> <li>• Pasta, enriched, cooked (1 cup)</li> <li>• Kidney, chick peas and navy beans, cooked (3/4 cup)</li> <li>• Lima beans, cooked (1/2 cup)</li> <li>• Split peas, cooked (1 cup)</li> <li>• Sesame seeds or paste (tahini) (2 tbsp)</li> <li>• Fortified cold cereals such as Cheerios™, Rice Krispies, Special K</li> <li>• Fortified hot cereals such as Cream of Wheat (1 cup)</li> <li>• Cereal bars such as Vector Bar</li> <li>• Sunflower seeds (1/4 cup)</li> <li>• Tempeh (1/4 cup)</li> <li>• Quinoa, cooked (1/2 cup)</li> <li>• Baked beans, canned (3/4 cup)</li> </ul>	<ul style="list-style-type: none"> <li>• Broccoli (1 cup)</li> <li>• Green peas, kale, bok choy (1/2 cup)</li> <li>• Tomato sauce (1/2 cup)</li> <li>• Almonds, cashews, hazelnuts, peanuts soy nuts (3 tbsp)</li> <li>• Prune juice (1/2 cup)</li> <li>• Brown rice, cooked (1 cup)</li> <li>• Bread, whole grain (1 slice)</li> <li>• Dried figs (3)</li> <li>• Dried apricots (5)</li> <li>• Dried dates (10)</li> <li>• Raisins (1/4 cup)</li> <li>• Wheat germ (1/4 cup)</li> <li>• Hot cereals such as Red River™ (1 cup)</li> <li>• Soy milk (1 cup)</li> <li>• Soy based meat analogs such as veggie burgers, hot dogs and deli slices</li> </ul>