

# Getting Enough Iron

## What is Iron?

Iron is an essential mineral that your body uses to make hemoglobin. Hemoglobin 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. This makes it hard for your red blood cells to carry oxygen through the body – this is called iron deficiency anemia.

## What are symptoms of iron deficiency?

- Pale looking
- Changes in mood – irritability, trouble focusing
- Headache
- Difficulty concentrating
- Dizziness
- Short of Breath
- Fatigue



## What Causes iron deficiency?

- Diet lacking in iron sources
- Inability to absorb iron well (e.g. celiac disease or when part of the stomach or small intestine has been removed)
- Losing iron (e.g. heavy bleeding in the body, heavy menstrual flow, donating blood)
- Lack of hormone to produce hemoglobin (e.g. chronic kidney disease)

## Why is diet important?

Getting enough iron in your diet can help prevent iron deficiency

The amount of iron you need depends on your age, gender and life stage

	Age	Amount needed each day
<b>Males</b>	14 to 18 years	11 mg
	19 years and over	8 mg
<b>Females</b>	14 to 18 years	15 mg
	19 to 50 years	18 mg
	51 years and over	8 mg
<b>Pregnancy</b>		27 mg
<b>Breastfeeding</b>	18 years and under	10 mg
	19 years and over	9 mg

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 requirements 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. (18 x 1.8 = 32)

## Iron and diet:

There are two forms of iron found in foods – heme iron and non-heme iron, so what’s the difference ?

Heme Iron	Non-Heme Iron
more readily absorbed by the body (approximately 23% of the iron consumed is absorbed)	vs. is not absorbed as well as heme iron (only 3-8% of the iron consumed is absorbed)
absorption is not changed by other foods	vs. absorption can be increased or decreased by other foods
found only in meat, fish and poultry	vs. 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 needs:

- Include at least one iron-rich food at each meal (see list).
- Add cooked dried beans or lentils to soups, stews or casseroles.
- 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 sardines to a salad or snack on sardines with whole grain crackers.
- Use barley to thicken soups and stews.
- Try molasses in baking instead of sugar.
- Try wheat germ over your cereal, add to muffins, breads and casseroles.
- Try prune or tomato juice!
- 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, orange juice) when eating high iron foods.
  - Avoid drinking coffee or tea with meals as this may decrease non-heme iron absorption – have these beverages 30 minutes before or after a meal.



## 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.

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> <li>• Mussels (15 small)</li> </ul>	<ul style="list-style-type: none"> <li>• Beef, lean (3 oz)</li> <li>• Oysters, (3)</li> <li>• Scallops, (6 medium)</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) (2tbsp)</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>

**Label Reading:**

- Read the *Nutrition Facts* box on packaged foods and choose those foods that are high in iron.

<b>Nutrition Facts</b>	
<b>Valeur nutritive</b>	
Per 1 bowl (300 g) / Pour 1 bol (300 g)	
Amount Teneur	% Daily Value % valeur quotidienne
<b>Calories / Calories</b>	440
<b>Fat / Lipides</b> 19 g	<b>29 %</b>
Saturated / Saturés 4 g + Trans / Trans 0.2 g	<b>21 %</b>
<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.

In the above example, we have a bowl of cereal. If you eat the suggested serving size (one bowl), you will meet 20% of your daily iron needs. Keep in mind; this is non-heme iron since it is from a cereal. You will improve your body's use of this iron by eating a high vitamin C food with it such as strawberries over top of your cereal or a 4 oz glass of orange juice with your breakfast.

Notes :

---

---

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

905-378-4647 ext. \_\_\_\_\_

**HOW ARE WE DOING?**  
You can provide feedback  
or suggestions for  
Niagara Health Clinical  
Nutrition services at:  
[www.niagarahealth.on.ca/en/clinical-nutrition](http://www.niagarahealth.on.ca/en/clinical-nutrition)