

# Iron rich foods

## Blood Conservation Program Hamilton Health Sciences

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### What is iron?

Iron is a mineral found in food that your body needs. It helps carry oxygen to all parts of your body.

### What if I do not have enough iron in my body?

If your iron level is low, your blood carries less oxygen to the cells. This may make you feel weak, tired and look pale.

### What causes low iron?

Low iron can be caused by:

- low intake of iron rich foods
  - donating blood or bone marrow
  - surgery
  - pregnancy
  - large blood loss through menstruation
  - other health conditions
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## How much iron do I need in my diet?

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	11 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

## What foods have iron?

You get iron from a number of foods. There are 2 types of iron in our diet: heme and non-heme iron.

**Heme iron** is found in animal products such as red meat, fish and poultry.

**Non-heme iron** is found in plant products such as grains, nuts, beans, legumes, vegetables and fruit.

Iron from animal products is better absorbed than iron from plant products.

If you do not eat any animal products, you will need to eat twice as much non-heme iron. Look at the chart “Sources of Iron” on page 4 of this handout.

The amount of absorption of non-heme iron can be increased or decreased by other foods in the diet. Here are some tips to help your body absorb the iron from food:

- Combine heme iron rich foods with non-heme iron rich foods when possible.
- Include a source of vitamin C with your meals. Vitamin C helps iron absorption. Some sources of vitamin C include:

broccoli	grapefruit	potatoes
green/red peppers	strawberries	peas
cabbage	cantaloupe	tomatoes
oranges	orange juice	tomato juice
brussel sprouts		

- Tea and coffee contain compounds that can decrease iron absorption. Have tea and coffee at least one hour before or after your iron-rich meal.

Include at least one iron rich food and a food that increases iron absorption at most meals and snacks.

## Sources of iron

<b>Excellent Sources (3.5 mg or more)</b>	<b>Good Sources (2.1 to 3.4 mg)</b>	<b>Sources (0.7 to 2.0 mg)</b>
<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 source</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 med)</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™ (1 cup)</li> <li>• Fortified hot cereals such as Cream of Wheat™ (1 cup)</li> <li>• Cereal bars such as Vector Bar™ (1)</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 oatmeal (regular), 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>

## Ways to add more iron to your diet

Food	How to use
<b>Molasses</b>	<ul style="list-style-type: none"><li>• Use it in baking instead of sugar. Or use as a partial substitute to sugar.</li></ul>
<b>Dried peas, beans, lentils</b>	<ul style="list-style-type: none"><li>• Add to soups, salads, and casseroles.</li></ul>
<b>Cream of Wheat™, fortified</b>	<ul style="list-style-type: none"><li>• Enjoy it for breakfast or as a bedtime snack.</li></ul>
<b>Prune and tomato juice</b>	<ul style="list-style-type: none"><li>• Good to drink or use in cooking or baking.</li></ul>
<b>Wheat germ</b>	<ul style="list-style-type: none"><li>• Sprinkle over cereals. Add to muffins, breads, and casseroles.</li></ul>
<b>Barley</b>	<ul style="list-style-type: none"><li>• Use to thicken soups and stews.</li></ul>
<b>Granola</b>	<ul style="list-style-type: none"><li>• Make your own with whole grain and fortified cereals, dried fruits, wheat germ, molasses, seeds and nuts.</li></ul>
<b>Dried fruit</b>	<ul style="list-style-type: none"><li>• Add to cereals, breads, cookies and desserts.</li></ul>
<b>Eggs</b>	<ul style="list-style-type: none"><li>• Use as a main dish. Enjoy hard boiled as a snack or added to salads.</li></ul>
<b>Sardines</b>	<ul style="list-style-type: none"><li>• Serve in a salad or as a snack on whole grain crackers.</li></ul>
<b>Beef</b>	<ul style="list-style-type: none"><li>• Add cooked strips of red meat to soups, salads, and pasta dishes.</li></ul>
<b>Liver, kidney and other organ meats</b>	<ul style="list-style-type: none"><li>• Add to meatloaf or stew. Serve paté as an appetizer on whole grain crackers or toast.</li></ul>

## Taking iron supplements

If your iron is too low for surgery, your doctor may recommend taking iron supplements. Iron supplements come in tablets, pills or capsules.

Before starting on iron supplements, tell your doctor if you have ulcers, colitis or bowel disease.

### **The best ways for your body to absorb and use iron supplements are:**

- take them on an empty stomach
- take them 1 hour before or 2 hours after a meal
- do not crush or chew them
- take with a glass of fruit juice to help absorb the iron
- do not lie down after taking your iron

If the iron upsets your stomach, you can take it with food right after a meal.

Some foods and medications affect the way iron is absorbed. **Take your iron supplements 1 hour before or 2 hours after eating these foods and medications.**

- dairy products such as milk, cheese and yogurt
  - tea and coffee
  - eggs
  - whole grain cereals and breads
  - antacids, calcium supplements
  - antibiotics
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## Side effects

Taking iron supplements can cause:

- stomach cramps
- nausea
- diarrhea
- heartburn
- constipation
- vomiting
- black bowel movements

Stop your iron pills and call your doctor, if you have:

- severe stomach pains
- chest pains
- clammy skin
- bluish lips and or fingernails
- rash
- fever
- bloody diarrhea
- have a hard time breathing

## Safety

- Do not take more than the recommended amount.
  - If you forget to take them one day, do not double up. Take your normal amount at your regular time the next day.
  - **Keep out of reach of children and pets.**
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