



What is iron?

Iron is a mineral that the body needs for growth and development. Your body uses iron to make hemoglobin and myoglobin. Hemoglobin is a protein in red blood cells (RBC) that carries oxygen from the lungs to all parts of the body. Myoglobin is a protein that provides oxygen to muscles.

Iron Requirements

The amount of iron you need each day depends on your age, and gender.

Age	Recommended Amount (mg)	
	Women	Men
0 – 6 months	0.27 mg	0.27 mg
7 – 12 months	11 mg	11 mg
1 – 3 years	7 mg	7 mg
4 – 8 years	10 mg	10 mg
9 – 13 years	8 mg	8 mg
14 – 18 years	15 mg	11 mg
19 – 50 years	18 mg	8 mg
51 years +	8 mg	8 mg
Pregnant	27 mg	
Breastfeeding	10 mg	

Do you eat a primarily plant-based diet?

Some people eat minimal animal-based proteins and get their protein primarily from plants (e.g., vegan and vegetarian). These people will need almost twice as much iron as listed in this table above. This is because the body does not absorb iron from plant foods (non-heme) as well as animal foods (heme).



Foods high in iron

It is recommended to first get iron from your diet. Iron is found naturally in many foods and is added to some fortified food products. You can get the recommended amount of iron by eating a variety of foods.

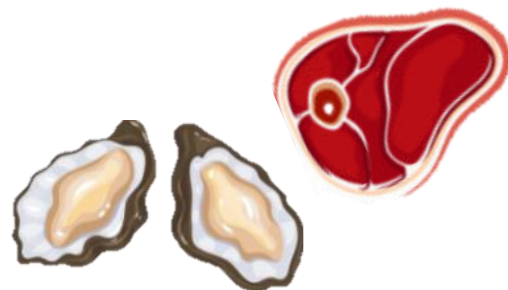
There are two forms of iron: heme and non-heme. Plants contain only non-heme iron, and animals contain both heme and non-heme iron.

Animal-based foods

Animal-based foods contain both heme and non-heme iron. There is a better absorption of the iron from these foods.

Animal-Based Foods	Portion	Total (mg)
Liver	2 Tbsp (1 oz)	4.2
Octopus, boiled	2 Tbsp (1 oz)	2.8
Oysters	2 Tbsp (1 oz)	2.6
Mussel	2 Tbsp (1 oz)	1.9
Moose	2 Tbsp (1 oz)	1.4
Venison	2 Tbsp (1 oz)	1.3
Elk	2 Tbsp (1 oz)	1.0
Beef	2 Tbsp (1 oz)	1.0
Crab	2 Tbsp (1 oz)	0.8
Beef, ground	2 Tbsp (1 oz)	0.7
Egg	1	0.7

Animal-Based Foods	Portion	Total (mg)
Cheese, goat	2 Tbsp (1 oz)	0.6
Fish (e.g., salmon, tuna, mackerel, trout)	2 Tbsp (1 oz)	0.5
Pork	2 Tbsp (1 oz)	0.4
Chicken, leg	2 Tbsp (1 oz)	0.4
Yogurt, plain	1/2 cup	0.4
Pork, ground	2 Tbsp (1 oz)	0.3
Chicken, breast	2 Tbsp (1 oz)	0.3
Cheese, hard	2 Tbsp (1 oz)	0.2
Turkey, breast	2 Tbsp (1 oz)	0.1



IRON

HEALTHY EATING TO IMPROVE IRON LEVELS



Plant-based foods

Plant-based foods contain non-heme iron. This iron is not as well absorbed by the body; therefore, you may require more.

Plant-Based Foods	Portion	Total
Tofu	1/2 cup	6.7
Sesame butter (tahini)	2 Tbsp	6.2
Baby cereal with iron, dry	2 Tbsp	5.7
Sesame seeds	1/4 cup	5.6
Cold cereal (30g)	1 cup	5.0
Edamame	1/2 cup	4.8
Cream of wheat, cooked	3/4 cup	4.8
Soybeans, dried (snack)	1/2 cup	4.7
Pumpkin seeds	1/4 cup	4.7
Hemp seeds	1/4 cup	4.5
Seaweed, spirulina, dried	1 Tbsp	4.3
Potato skin	1 skin	4.1
Molasses, blackstrap	1 Tbsp	3.6
Lentils	1/2 cup	3.5
Spinach, boiled	1/2 cup	3.4
Chia seeds	1/4 cup	3.3
Rice bran	2 Tbsp	2.9
Canned tomato products	1/2 cup	2.9
Beans: kidney, pinto, black, black-eyed pea, white	1/2 cup	2.8
Quinoa, dry	1/3 cup	2.7
Sundried tomato	2 Tbsp	2.7
Baked beans	1/4 cup	2.7
Oats, dry	1/3 cup	2.6
Chickpeas	1/4 cup	2.5
Flax seed, ground	1/4 cup	2.4
Sunflower seeds	1/4 cup	2.3
Cashew	1/4 cup	2.2
Hearts of palm	1/2 cup	2.1
Asparagus	6 spears	2.1
Coconut, shredded	1/4 cup	2.0
Coconut milk (canned)	1/4 cup	2.0
Oat flour	1/4 cup	1.9

Plant-Based Foods	Portion	Total
Almonds	1/4 cup	1.9
Apricot, dried	1/4 cup	1.9
Leafy greens (chard, beet greens, spinach, turnip greens, collard), boiled	1/2 cup	1.9
Pine nut	1/4 cup	1.9
Prune juice	1/2 cup	1.6
Bread, sprouted, multigrain	1 slice	1.6
Hummus	1/4 cup	1.5
Beets	1/2 cup	1.5
Yogurt, soy	1/2 cup	1.0
Bread, rye, white, whole wheat, sourdough, GF	1 slice	1.4
Almond flour	1/4 cup	1.4
Hazelnut	1/4 cup	1.3
Green peas	1/2 cup	1.3
Mushrooms	1/2 cup	1.3
Pistachio	1/4 cup	1.3
Macadamia nut	1/4 cup	1.3
Sweet potato, no skin	1/2 cup	1.3
Egg noodle, enriched, cook	1/2 cup	1.2
Prune, dried	1/4 cup	1.2
Almond butter	2 Tbsp	1.1
Walnuts	1/4 cup	1.0
Raisin	1/4 cup	1.0
Pasta, enriched, cooked	1/2 cup	1.0
Wheat germ	2 Tbsp	0.9
Raspberry	1 cup	0.9
Wheat bran	2 Tbsp	0.8
Pecans	1/4 cup	0.8
Peanut butter	2 Tbsp	0.7
Strawberry	1 cup	0.7
Peanuts	1/4 cup	0.6



Improve iron absorption

Your body absorbs iron better when paired with foods that contain vitamin C (ascorbic acid). Foods high in vitamin C include citrus fruits, bell peppers, strawberries, sweet peppers, tomatoes, and broccoli.



Cooking in an Iron pan or skillet can increase iron content in the food.

Try Lucky Iron Fish when cooking to safely add iron to your food.

<https://ca.luckyironfish.com/>

Foods that inhibit iron absorption include black tea, coffee, and dairy.

Risk of low iron levels

Iron deficiency is more common in some populations who tend to have trouble getting enough iron:

- Teenage girls
- Women in their reproductive years
- Females who are pregnant
- Infants (especially if they are premature or low birthweight)
- Frequent blood donors or people who have lost a lot of blood
- People with cancer, intestinal disorders (IBD, Crohn's, colitis), or heart failure
- People following a vegan diet (some people following a vegetarian diet)
- Athletes competing in long-distance sports

Symptoms of low iron

There are no obvious symptoms from too little iron on a day-to-day a basis. The body can use its stored iron (ferritin) if needed.

When levels of ferritin get low, iron deficiency is possible. Your red blood cells (RBC) may get smaller and contain less hemoglobin. As a result, your blood carries less oxygen from your lungs to the rest of your body.

These symptoms may arise with low iron:

- Intestinal upset
- Weakness, fatigue, or tiredness
- Unable to control body temperature
- Problems with memory or focus
- Reduced ability to fight infections

Supplementing iron

If iron levels are still low, you may need a supplement. It is essential to have proper blood work completed to determine iron status and if iron supplementation is required. Excess iron intake can be toxic.

Iron supplements are available in tablets, chewable tablets, capsules, and liquids. For many people, iron supplementation can resolve iron deficiency within 8 weeks. Speak to your provider (e.g., dietitian, MD, nurse) about which supplement is right for you.

When taking an iron supplement, take separately from your calcium, zinc, and multivitamin supplements.

Meal and Snack Ideas

Breakfast

- Omelet: 2 eggs, 1 oz chopped meat, spinach, green pepper
- 1 slice sprouted grain bread (e.g., Silver Hills or Ezekiel) with 1 Tbsp cashew butter, 1 orange
- 1/2 cup plain yogurt, 1 cup cereal, ½ cup berries, 3 Tbsp hemp hearts

Lunch

- Sandwich: 2 slices sprouted grain bread (e.g., Silver Hills or Ezekiel), 3 oz canned salmon, tomato slices, cut up cucumber
- Spinach salad: spinach, chopped peppers, chopped tomato and onion, 3oz meat, ¼ cup pumpkin seeds
- 1/2 cup tofu (marinate with 1 Tbsp tahini, 1 tsp soya sauce, 1 Tbsp lemon juice, ½ teaspoon curry powder), bake for 15 minutes at 400F. Chopped red bell peppers, tomatoes, and cucumber.

Dinner:

- 3-4oz meat, 1 cup quinoa, roasted asparagus
- Salad: ½ cup chickpeas, 1 cup leafy greens, ¼ cup cashews, chopped cucumber and tomato. Dressing of choice.
- Pasta sauce: 1/2 cup lentils, 1oz ground beef + tomato sauce and ½ cup enriched pasta, served with steamed leafy greens (beet greens or spinach).
- Have strawberries or raspberries for dessert.

Snacks

- 1/4 cup pumpkin seeds + ½ cup cut strawberries
- 1/4 cup Hummus with broccoli and bell peppers
- 1 medium apple + 2 Tbsp nut butter (peanut, cashew, almond, tahini, or pumpkin seed)
- 1oz cheese + 6 whole grain crackers (Mary's crackers)

Recipes

For delicious recipes high in iron:

<https://www.unlockfood.ca/en/Articles/Vitamins-and-Minerals/How-to-get-more-iron.aspx>

