

# The Healthy Choice... Iron



*Swiss Chard, Kale, Snow Peas, & Leeks are all vegetables high in iron.*



*Garlic, Parsley, and Artichokes are good dietary sources of Iron.*

There are two types of iron in foods: heme and nonheme. Heme iron is in animal products while non-heme iron is in plant foods.

It is easier to absorb heme iron than non-heme iron.

## Why We Need Iron

### Why do we need iron in our diet?

Iron, a mineral in our bodies, is used in all cells. Iron is a component of the protein hemoglobin, which helps so carry oxygen from our lungs to the cells throughout the body. Iron also has been known to help muscles store and use oxygen.

### What does it mean to be iron deficient?

Iron deficiency anemia is the most common nutritional deficiency, as well as the leading cause of anemia in the United States. Iron deficiency can affect people at any age. In infants, it can delay normal motor and intellectual functioning. Lack of iron during pregnancy may cause the baby to be born preterm or small. Iron deficiency causes fatigue, impairs memory, and the ability to do physical work.

### How is iron deficiency related to anemia?

When you do not have enough Iron, your hemoglobin levels are low, which results in your body being iron/oxygen deficient. This causes anemia.

### Who is at the highest risk?

Those at the highest risk of developing iron deficiency anemia includes young children, pregnant women, adolescent girls, women of childbearing age, and children prone to infection. This is because the young children are at a peak growth period. Pregnant women have higher iron needs due to pregnancy and can develop deficiency. Adolescent girls and women of childbearing age have a high risk of iron deficiency due to menstruation and loss of iron. It is important that children who are prone to infection receive treatment for iron deficiency anemia.

### What are the symptoms of iron deficiency anemia?

Some of the symptoms of iron deficiency include feeling tired and weak, decreased work and school performance, slow cognitive and social development during childhood, difficulty maintaining normal body temperature, and decreased immune function.

### How do you test for anemia?

Some tests that detect iron deficiency include: hemoglobin tests, hematocrit tests, complete blood counts, serum

ferritin level, serum iron level, transferrin saturation level, and transferrin receptor level. All of these examine various levels of iron within the blood.

### What commonly causes iron deficiency?

Increased iron is needed during rapid growth periods, pregnancy, blood loss such as heavy menstrual periods, frequent blood donation, as well as stomach and intestinal conditions. It may even be due to decreased iron intake that is related to the lack of heme iron sources within the diet. This aspect is commonly seen in vegetarians.

### What can interfere with iron absorption?

Taking antacids beyond the recommended dose or taking medicine used to treat peptic ulcer disease and acid reflux can reduce the amount of iron that is absorbed within the stomach. Your doctor can monitor your iron levels if you are being treated for either.



## Good Sources of Iron



Eating a variety of dark green vegetables can assure more iron.

If you have been diagnosed with iron deficiency anemia, then it is advisable to eat fruits and vegetables that are high in iron but low in saturated fat. Some of these include almonds, apricots, dates, kidney beans, lima beans, raisins, brown rice, and spinach. To increase iron

absorption from foods, it is recommended that we include foods that are high in vitamin C. This promotes iron absorption.

Common vegetable sources of iron include Bok Choy, kale, artichokes, leeks, garlic cloves, parsley, spinach, snow peas, taro, Swiss chards, soybeans,

pumpkin, white beans, cowpeas, lima beans, navy beans, refried beans, and tomatoes. These are just some of the multiple examples of iron containing vegetables. A full list of various iron rich items can be found at <http://www.cdc.gov/nccdphp/dnpa/nutrition/>

## How to prevent Iron Deficiency Anemia?

To prevent iron deficiency anemia, it is recommended that we eat a wide variety of foods everyday, including milk products, meat, and alternates, vegetables, fruits, and whole grains.

It is important to include iron rich foods in your diet everyday.

To increase the intake of heme-iron, the form that is easier to absorb, try to have some meat,

fish, or poultry every day. This can also help in the absorption of non-heme iron in the same meal.

To improve iron absorption, include some vitamin C-rich foods with meals. This will improve your body's uptake of iron.

You can also increase the iron content of foods by cooking foods in cast iron cookware.

To improve the absorption of

iron, you would want to eliminate and reduce the amount of caffeinated soda, coffee, and tea you are drinking.

Caffeinated beverages can inhibit iron absorption from the food you eat. If you drink coffee or tea, or commonly ingest foods containing caffeine, such as chocolate, have them between meals.

Using a cast iron pot for slow cooked foods can actually increase the iron content of the foods.

## Can We Get Too Much Iron?

It is possible to get too much iron. There is a genetic condition in which some individuals can absorb too much iron. This condition is much more common in men than women. People who have inherited this condition called **Hemochromatosis** have a genetic defect affecting their ability to regulate the absorption of iron into the

body. They absorb iron hyper-efficiently which can result in an iron overload. This can be fatal. This condition can go undiagnosed because the iron overload normally poses no symptoms of problems. Normally, we are not in great danger of ingesting toxic amounts of iron from food. However, when individuals start taking iron supplements, it can be lethal.

Due to a potential association between high iron intake and cardiovascular disease it is prudent that men and post-menopausal women, who have no medical indications for iron supplementation, avoid iron supplements and foods fortified with 100 percent of the daily requirement.



Meat is a good source of heme iron.

## Are You Eating Iron-rich Foods Every Day?

An average man needs to consume up to 8 milligrams of dietary iron every day and the average woman needs 15-18 or more milligrams of dietary iron every day. It is easy to consume an adequate amount of calories and not get enough iron. Consuming foods that

have heme-iron, such as meat and chicken can improve iron absorption from other foods. In addition, combining foods that are high in vitamin C, such as orange juice, tomatoes, bell peppers and broccoli with foods that have non-heme iron such as green leafy vegetables,

beans, legumes and whole grains can increase non-heme iron absorption.

Iron is important for normal growth and development in children and for maintaining energy and stamina in adults.



Dry beans are a good source of iron.

### Recommended Dietary Allowance (RDA) for Iron by

#### Age and Sex

<u>Age/Group</u>	<u>Life Stage</u>	<u>Iron (mg/day)</u>
<b>Infants</b>	0 to 6 months	0.27 mg daily
	7 to 12 months	11 mg daily
<b>Children</b>	1 to 3 years	7 mg daily
	4 to 8 years	10 mg daily
<b>Males</b>	9 to 13 years	8 mg daily
	14 to 18 years	11 mg daily
	19 to 30 years	8 mg daily
	31 to 50 years	8 mg daily
	51 to 70 years	8 mg daily
	Greater than 70 years	8 mg daily
<b>Females</b>	9 to 13 years	8 mg daily
	14 to 18 years	15 mg daily
	19 to 30 years	18 mg daily
	31 to 50 years	18 mg daily
	51 to 70 years	8 mg daily
	Greater than 70 years	8 mg daily
<b>Pregnant Women</b>	14 to 18 years	27 mg daily
	19 to 30 years	27 mg daily
	31 to 50 years	27 mg daily
<b>Lactating Women</b>	14 to 18 years	10 mg daily
	19 to 30 years	9 mg daily
	31 to 50 years	9 mg daily

**It is important for babies to get your RDA of iron for maximum brain development.**



Green leafy vegetables are a good source on non-heme iron.

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