

INCREASING IRON IN YOUR DIET

Iron is a mineral that combines with protein to form hemoglobin, the red substance in blood that carries oxygen to the body's cells. Iron helps prevent nutritional anemia and increase resistance to infection. The foods you eat influence not only how much iron you consume, but also how well it is absorbed into your body. The best way to ensure you are getting enough iron is to eat a well-balanced diet – one that includes breads, cereals, fruits, vegetables, meats, and dairy products.

In foods, iron is present in two forms: heme and non-heme. Heme iron is found in animal foods that contain hemoglobin, such as meat, fish, and poultry. Heme iron is the best form of iron, as up to 40% of it is readily absorbed by your blood. Good food sources of heme iron include beef, pork, chicken, veal, fish (such as halibut, haddock, perch, salmon, or tuna), and shellfish (such as clams, oysters, and mussels).

Non-heme iron primarily comes from plant sources and is present in grains, vegetables, and fortified foods. This is the form added to foods enriched or fortified with iron, as well as many supplements. It is estimated that 85-90% of total iron intake comes from the non-heme form, while 10-15% comes from the heme form. Good sources of non-heme iron include fortified cereals, rice, wheat and oats, dark green leafy vegetables (like spinach and kale), dried fruits (ex. raisins and apricots), and beans (ex. lentils and soybeans).

Vitamin C has been shown to enhance iron absorption. It captures non-heme iron and stores it in a form that is more easily absorbed by your body. Food high in vitamin C include citrus fruits, dark green leafy vegetables, bell peppers, melons, and strawberries. Some foods hinder absorption of iron. When eating iron-rich foods, go easy on coffee and tea (both regular and decaf) and bran.

Not everyone needs a supplement. Supplements with iron may be indicated when diet alone cannot provide enough iron to restore iron to a health level. You should only take iron supplements at the discretion of your physician to minimize the risk of iron overload.

The USDA recommends that women between the ages of 19 and 50 get 18 mg of iron a day, while women ages 51 and older and men 19 years and beyond need 8 mg a day.

Tips for Adding Iron to your Diet:

- Eat lean red meat: This is the best source of easily absorbed heme iron. Eating it several times per week can help if you are deficient.
- Eat chicken and fish: These are also good sources of heme iron. Eat a variety of them.
- Eat enriched or fortified grain products: Certain B vitamins and iron are added back after processing.
- Consume vitamin C-rich foods: Eat vitamin C-rich foods during meals to increase the absorption of non-heme iron. For example, some lemon juice drizzled over leafy greens will increase the amount you absorb.
- Avoid coffee, tea, or milk near meals: Avoid these during meals that contain iron-rich foods. Have your coffee or tea between meals instead.
- Choose foods rich in non-heme iron: If you do not eat meat and fish, include plenty of iron-rich plant foods in your diet.

Food Categories	Foods Recommended	Tips
Breads, Cereals, Rice, and Pasta 6-11 Servings per day		
Serving size: 1 slice of bread 1 cup ready-to-eat cereal ½ cup cooked cereal, rice, or pasta ½ bun, bagel, or English muffin	All In particular: iron-fortified whole grain breads, pastas, rice, and cereals	Scan food labels. Look for breads and cereals that contain 20% or more of the Daily Value (DV) for iron. Increase the iron potential of pasta by serving enriched noodles with tomato sauce (a good source of vitamin C)
Vegetables 3-5 servings per day		
Serving size: 1 cup cooked or chopped raw 1 cup raw leafy ¾ cup of juice	All vegetables In particular: leafy greens, broccoli, spinach, kale, turnip greens, collards, potato with skin, lima beans, and green peas	Remember to eat the skin on baked potatoes. Add spinach and other leafy green vegetables to soups, stews, and casseroles.
Fruits 2-4 servings per day		
Serving size: 1 medium size ½ cup canned ¾ cup juice ¼ cup dried	All fruits In particular: Apricots (dried, canned), figs, raisins, prunes, and prune juice	Eat a vitamin C-rich fruit of vegetable at each meal to enhance iron absorption from other foods. Good sources of vitamin C include citrus fruits, broccoli, tomatoes, and green pepper. Snack on trail mixes of dried apricots, raisins, figs, and nuts.
Milk, Yogurt, and Cheese 2-3 servings per day		
Serving size: 1 cup milk or yogurt 1 ½ ounce natural cheese 2 ounces processed cheese	All milk	Foods in this group provide very little iron but are an important part of a healthy diet. Add dried fruits and nuts to yogurt and shakes to boost iron.
Meats, Poultry, Fish, Dried Beans and Peas, Eggs and Nuts 2-3 servings or total of 6 ounces daily		
Serving size: 2-3 ounces cooked meat, poultry, or fish 1 egg ½ cup cooked beans 2 tbsp peanut butter 1/3 cup nuts as 1 ounce meat	All meats, poultry, fish All beans, peas, nuts, and seeds All eggs	Meat poultry (especially dark meat) clams and oysters are good sources of iron. Stir-fry meat with vegetables. Meat, fish, and poultry have a special quality that increases iron absorption in vegetables and other non-meat sources. "Loan up" soup and chili with lots of dried beans and peas.
Fats, Snacks, Sweets, Condiments, and Beverages Sparingly		
Use sparingly	Blackstrap Molasses	Drink coffee or tea between meals rather than with meals

High Iron Sample Menu

BREAKFAST

- Orange juice * (3/4 cup)
- Iron-fortified cereal^ (1/2 cup) with raisins^
- Whole grain toast^ (2 slices) with margarine (2 tsp) and jam (1 tbsp)
- Low fat milk (1 cup)

LUNCH

- Black bean soup^
- Hamburger* (3 oz) on a roll (1) with sliced tomato~, onion, and lettuce
- Cantaloupe~ (1/2 cup)
- Ice water

DINNER

- Tossed salad (1 cup) with oil and vinegar dressing
- Herb baked chicken* (3 oz)
- Baked potato with the skin^ with margarine (1 tsp)
- Steamed broccoli~ (1 cup)
- Whole-grain roll^ (1) with molasses^
- Low-fat frozen yogurt with fresh strawberries~ (1/2 cup)
- Low fat milk (1 cup)

SNACK

- Trail mix^: raisins (1 tbsp), peanuts 1/2 oz), sunflower seeds (1/2 oz), and chopped dried apricots (1)
- Cranberry juice cocktail~ (1/2 cup)

* Source of heme iron

^ Source of non-heme iron

~ Source of vitamin C