

# IRON IT OUT! WAYS TO ENERGIZE YOUR PLATE

by Julie Schwartz, MS, RDN, LD, ACSM-EP, NBC-HWC

We have all heard that iron is important for our bodies, but what does it actually do for us? At the top of the list, iron helps energize us. It plays a key role in many body functions and is essential for blood health.

When we eat iron-rich foods, a small amount is absorbed in the intestines and stored in the liver. The body releases iron as needed to make new red blood cells. Iron's main role is producing hemoglobin, which transports oxygen throughout the body in red blood cells. That oxygen allows our cells to produce energy. Iron also helps remove carbon dioxide, a byproduct of energy production.

Without enough energy, it can be hard to participate in daily activities, both the things we need to do and the things we enjoy. Iron is also necessary for:

- A healthy immune system
- muscles
- cells
- skin
- hair
- nails

## WHAT HAPPENS WHEN WE DO NOT GET ENOUGH IRON?

When the body's iron stores drop too low, hemoglobin levels fall and red blood cells cannot carry oxygen efficiently. This can affect strength, stamina, hair, skin and nails. The immune system may also struggle, making it harder for the body to fight infection.



## SIGNS OF IRON DEFICIENCY

Low iron levels can lead to iron deficiency anemia. Common symptoms include unexplained fatigue, low energy, weakness and difficulty maintaining body temperature.

Other symptoms may include:

- Pale or yellowish skin
- Brittle or spoon-shaped fingernails
- Hair loss
- Dizziness or lightheadedness
- Headaches
- Shortness of breath or chest pain, especially with activity
- A pounding or “whooshing” sound in the ears
- A sore, smooth or swollen tongue
- Cravings for ice or dirt

Children may experience poor appetite and lethargy when they are anemic. Early detection is important for healthy growth and development.

## WHO IS AT RISK?

Low iron intake is most concerning for young children, people who menstruate, especially those with heavy periods and pregnant individuals.

People with overweight or obesity may also be at higher risk due to chronic inflammation and increased levels of hepcidin, a hormone that limits iron absorption in the intestines. More research is needed in this area, but it may be another reason to follow anti-inflammatory eating and lifestyle habits.

Additional risk groups include:

- People who have had bariatric surgery, especially gastric bypass or biliopancreatic diversion with duodenal switch, also known as BPD-DS
- People who have undergone major surgery or physical trauma
- People with gastrointestinal conditions such as celiac disease, ulcerative colitis or Crohn disease
- People with peptic ulcer disease
- People using long-term acid-reducing medications
- People who follow vegetarian or vegan eating patterns or whose diets lack iron-rich foods
- Children who drink more than 16 to 24 ounces of cow’s milk per day. Cow’s milk contains little iron and can interfere with iron absorption and irritate the intestinal lining, leading to chronic blood loss

## WHO CAN HELP IF YOU SUSPECT IRON DEFICIENCY?

If you have symptoms or think you may have iron deficiency anemia, your health care provider can assess your iron status and determine whether changes in diet or supplements are needed. It is important to talk with a physician or registered dietitian nutritionist before starting iron supplements. Some symptoms of iron deficiency overlap with other conditions, and supplementing without guidance can mask the real issue.

Blood tests, often part of annual wellness visits, may include a complete blood count, hemoglobin, hematocrit, serum ferritin, iron, total iron-binding capacity or transferrin.

With this information, your healthcare provider and RDN can work with you to develop a personalized plan to restore iron stores and energy levels. They will consider your usual eating pattern, food preferences, supplements and lifestyle to create a plan that fits your needs.

## FOOD SOURCES OF IRON

Iron comes in two forms: heme and non-heme. Animal foods such as lean meat, seafood and poultry provide both forms and are more easily absorbed by the body. Non-heme iron is found in plant foods like lentils, beans, dark leafy greens, nuts and iron-fortified grains and cereals.

Eating vitamin C-rich foods, including citrus fruits, tomatoes, kiwi, strawberries and bell peppers, can help increase iron absorption.

Tannins occur naturally in foods and beverages and affect taste and mouthfeel. While tannins may offer some health benefits, they can interfere with the absorption of non-heme iron. Foods and beverages high in tannins include tea, coffee, chocolate and unripe fruit. To support iron absorption, pair iron-rich foods with vitamin C and limit tannin-rich foods at the same meal.

### FOODS HIGH IN IRON

#### Animal sources:

- Lean red meat
- Chicken thigh and other dark meat poultry



#### Plant sources:

- Lentils and beans
- Tofu
- Spinach and other dark leafy greens
- Edamame
- Nuts and seeds



#### Fortified foods:

- Iron-fortified cereals
- Iron-fortified breads and grains



## HOW MUCH IRON DO YOU NEED?

Recommended dietary allowances vary by age and sex:

- 7–12 months: 11 mg
- Ages 1–3: 7 mg
- Ages 4–8: 10 mg
- Ages 9–13: 8 mg
- Ages 14–18: 11 mg for males, 15 mg for females
- Ages 19–50: 8 mg for males, 18 mg for females
- Age 51 and older: 8 mg

## WHAT IF SUPPLEMENTS ARE NEEDED?

The amount of iron needed to treat deficiency is usually higher than what is found in standard multivitamins. Supplement type and dose should be individualized based on lab results and health history.

Iron supplements are typically taken once daily. If you take antacids, iron should be taken two hours before or four hours after. Vitamin C improves absorption, and some providers recommend taking iron with vitamin C-rich foods or a vitamin C supplement. Side effects may include stomach discomfort, nausea, constipation, diarrhea and dark stools.

Avoid calcium-rich foods or supplements for two hours before and after taking iron to optimize absorption.

People who have had metabolic or bariatric surgery, especially gastric bypass or BPD-DS, are often advised to supplement iron for life due to changes in absorption. Follow your health care team's guidance and have annual nutrition labs checked.

In rare cases, iron infusions may be necessary. Your healthcare provider can help determine the best approach.

## FITTING IRON-RICH FOODS INTO YOUR DAY

When focusing on iron intake, choose foods you enjoy and that support your vision of health and well-being. Keep in mind that dark meat contains more iron than light meat and iron content varies by serving size. Check labels and choose iron-fortified grains when possible.

### ***About the Author:***

*Julie Schwartz, MS, RDN, LD, ACSM-EP, NBC-HWC, is an award-winning registered dietitian nutritionist and health and wellbeing coach known for her thoughtful, people-centered approach to weight management and obesity care. Recognized with the Academy of Nutrition and Dietetics' Medallion Award, Julie blends nutrition, fitness and coaching to help individuals build confidence, find balance and create sustainable changes that support long-term health.*



## SAMPLE IRON-RICH MENUS:

### Breakfast

- Two eggs with sautéed mushrooms, spinach and peppers, whole grain toast and grapefruit slices (4.5–5 mg)
- One to two boiled eggs with oatmeal, toasted walnuts and berries (3.4–4.3 mg)

### Lunch

- Spinach salad with peppers, mushrooms, strawberries and chicken thigh with vinaigrette (5.2 mg)
- Veggie burger with spinach and tomato on pumpernickel bread with sliced kiwi (5 mg)

### Dinner

- Three ounces of sirloin with roasted Brussels sprouts and a baked potato with skin (6.9 mg)
- Tofu stir-fry with vegetables, toasted cashews and brown rice (6.5 mg)

### Snacks

- One cup salted edamame (3.5 mg)
- One-quarter cup almonds or pistachios (1.3 mg)
- Hummus with vegetables for dipping (1.1 mg)

## LEARN MORE

For additional information on iron and iron-rich foods, visit the USDA dietary guidelines <https://www.dietaryguidelines.gov/resources/2020-2025-dietary-guidelines-online-materials/food-sources-select-nutrients/food-sources-iron>



# ABOUT THE OBESITY ACTION COALITION (OAC)

The Obesity Action Coalition (OAC) is a National non-profit organization dedicated to giving a voice to individuals affected by obesity and helping them along their journey toward better health. Our core focuses are to elevate the conversation of weight and its impact on health, improve access to obesity care, provide science-based education on obesity and its treatments, and fight to eliminate weight bias and discrimination.



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## LEARN, CONNECT, ENGAGE

The OAC knows that the journey with weight can be challenging but we also know that great things happen when we learn, connect and engage. That is why the OAC Community exists. Our Community is designed to provide quality education, ongoing support programs, an opportunity to connect, and a place to take action on important issues.

### Through the OAC Community, you can get access to:

- Weight & Health Education • Community Blogs
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