Iron – Are you getting enough?

Why does your body need iron?
Your energy levels depends on it! Iron is a mineral that carries oxygen to the muscles and brain. It is crucial for health as well as mental and physical performance.

Symptoms of Low Iron Levels:
- Low energy level
- Poor focus and concentration
- Weakened immune system
- Slow recovery from exercise

How Much Iron Do We Need?

<table>
<thead>
<tr>
<th></th>
<th>Male</th>
<th>Female</th>
<th>If Deficient*</th>
<th>Pregnancy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Recommended Daily Intake</td>
<td>8 mg</td>
<td>18 mg</td>
<td>30 mg</td>
<td>27 mg</td>
</tr>
<tr>
<td>Maximum Daily Intake</td>
<td>45 mg</td>
<td>45 mg</td>
<td>45 mg</td>
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</tbody>
</table>

*Deficiency is diagnosed by your doctor

Types of Iron
- *Heme* Iron
  - Found only in animal foods: meat, chicken, fish, dairy, and eggs
  - Is easily absorbed
- *Nonheme* Iron
  - Found in plant based foods: beans, vegetables, and soy
  - Harder to absorb than heme iron, but certain dietary factors can increase absorption.

Factors that Enhance Non-Heme (“Plant”) Iron Absorption:

<table>
<thead>
<tr>
<th>Factor</th>
<th>Source</th>
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<tbody>
<tr>
<td>Vitamin C</td>
<td>Bell Peppers, Berries, Broccoli, Oranges, Grapefruits</td>
</tr>
<tr>
<td>Citric Acid, Malic Acid, Tartaric Acid</td>
<td>Fruits, Vegetables</td>
</tr>
<tr>
<td>Lactic Acid</td>
<td>Sauerkraut</td>
</tr>
<tr>
<td>Retinol and carotenoids</td>
<td>Dark green, red, and orange fruits and veggies</td>
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</tbody>
</table>

Note: Eating animal protein with non-heme iron promotes absorption of non-heme iron.
### Beware…Some Factors in Certain Foods INHIBIT Iron Absorption

<table>
<thead>
<tr>
<th>Factor</th>
<th>Source</th>
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<tbody>
<tr>
<td>Polyphenols, tannins</td>
<td>Tea, coffee</td>
</tr>
<tr>
<td>Calcium, phosphorus, dairy protein</td>
<td>Milk, yogurt, cheese</td>
</tr>
<tr>
<td>Egg protein</td>
<td>Whole eggs, egg whites</td>
</tr>
<tr>
<td>Phytates</td>
<td>Legumes, whole grains</td>
</tr>
<tr>
<td>Oxalates</td>
<td>Spinach</td>
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</tbody>
</table>

### What to Do

#### Include These Iron Rich Foods in Your Diet Regularly:

- Fish and shellfish – tuna, salmon, oysters, clams, shrimp, etc.
- Lean meats – beef, pork, lamb
- Poultry – chicken and turkey
- Organ meat – beef liver
- Beans and legumes – kidney, black, soy, pinto, navy, garbanzo, lentils
- Tofu and soy-based meat alternatives like veggie burgers
- Greens – spinach, kale; mustard, collard and turnip greens
- Vegetables – broccoli, asparagus, parsley, Brussels sprouts, potatoes, peas
- Dried fruits – raisins, dates, prunes, apricots
- Iron-fortified whole grains – cereals, breads, tortillas, rice, pasta
- Blackstrap molasses, egg yolks, nuts

#### Eat a fruit or vegetable (especially one that’s vitamin C rich) when you eat an iron containing food.

For example:

- Add strawberries (or drink a small glass of OJ) when you eat iron fortified breakfast cereal.
- Add segments of orange/grapefruit (or bell pepper strips) to a salad that contains chicken or turkey.
  - Eat chicken fajitas with bell peppers.
  - Add tomato slices to a turkey sandwich.
  - Make a burrito with beans and salsa.
- Pair Canadian bacon and pineapple toppings on pizza

#### Avoid consuming tea, coffee, or milk with meals containing iron rich foods.
Sample Menu Suggestions Containing Foods with Iron

Breakfast
- Iron fortified cereal + raisins or strawberries + skim milk.
- Scrambled eggs + whole wheat toast. Eat with OJ.
- Yogurt Parfait: layer nonfat greek yogurt + sliced strawberries + wheat germ + crushed walnuts

Lunch/Dinner
- Split Pea Soup
- Lentil Soup
- Turkey sandwich with hummus and roasted red bell peppers and spinach
- Spinach salad with grilled chicken and sliced strawberries
- Spinach salad with choice of the following proteins: lentils, chickpeas, kidney beans, sardines, tofu, or turkey. Add sliced strawberries or orange slices. Drizzle with olive oil.
- Yogurt Parfait: yogurt + sliced strawberries/oranges + wheat germ + slivered almonds
- Sardines on whole wheat crackers.
- Grilled chicken or meat + baked potato + broccoli or steamed artichoke

Snacks
- Hard boiled egg
- “Trail Mix”:
  - Almonds + raisins
  - Walnuts + dried apricots
  - Pumpkin seeds + sunflower seeds + raisins
  - Any combination of walnuts, almonds, pumpkin seeds and/or sunflower seeds + raisins and/or dried apricots!
- Bell peppers dipped in hummus.
- Dried chick peas

References:
