Dear Alice,

I need to take an iron supplement and have two concerns: one, I know that many foods interfere with iron absorption. How can I maximize the absorption of any iron (and calcium) supplements? My other concern is that my GI system is very sensitive. How do I deal with constipation that often goes with iron supplements?

Calcium and Iron Maiden

Answer

Dear Calcium and Iron Maiden,

It seems like you're approaching a supplement regimen with a healthy consideration of various factors like absorption and affects on your system? a great idea! You're right that there are certain foods that can inhibit iron absorption, like the oxalic acid in spinach, phosphates primarily in milk, other dairy products, and egg whites, phytates in beans, and tannins in tea and coffee. While it would take a lot of these foods to seriously impair your ability to absorb iron, you might want to consider going easy on them while trying to boost iron levels.

On the opposite side of the spectrum, there are many foods that are rich in iron, and it's usually preferable to get your essential nutrients from food rather than supplements. The body has an easier time digesting and absorbing nutrients like iron and calcium in the amounts and forms in which they occur naturally. You can check out Sources of Iron in Alice's Fitness & Nutrition archives for a list of these iron-boosting foods (sneak preview: meat, fish, dark leafy greens, dried beans, and nuts are all healthy iron-rich foods). Another dietary tactic to boost iron absorption is to eat a vitamin C rich food with your iron-rich food or supplement, as vitamin C aids in iron absorption. For example, eating citrus (oranges, grapefruits, lemons) along with your spinach salad will help unlock the iron in spinach. You can also cook your food in cast iron pots and pans to enrich your food with iron.

In terms of your sensitive GI system, the least constipating iron formula is hydrolyzed protein chelate, but again, diet can come into play here. In addition to looking for gentle and non-constipating types of iron supplements, you can also alleviate constipation by drinking plenty of water and by eating fibrous foods like whole grains, fresh fruits, fresh vegetables, and other foods as unprocessed as you can find them (whole grain bread instead of white, whole grain pasta instead of white, brown rice instead of white). It's a good idea to increase fiber intake
slowly? too much too soon can cause gas and bloating. And to underscore again, when increasing fiber it's important to drink even more water than you think you need to make sure all that bulk moves through your system smoothly.

As for calcium, the two most common forms in supplements are calcium citrate and calcium carbonate. Studies show that calcium citrate is the most absorbable supplement form, and may be taken between or with meals. Vitamin D helps to assimilate calcium into bones. When exposed to sufficient sunlight, the human body synthesizes its own vitamin D. Fatty fish like salmon, tuna, and sardines are great food sources of vitamin D. If you want a D supplement, which might be a good idea for folks who live in northern climates and don't get adequate sun exposure during the winter, or for people who don't eat a lot of fish, look for supplements that contain vitamin D3 (cholecalciferol), rather than vitamin D2 (ergocalciferol). Vitamin D3 is more potent. You might also want to consider taking a magnesium supplement with your calcium at a ration of two-parts calcium to one part magnesium, as magnesium is needed to fully absorb and utilize calcium.

Finally, see if you can avoid taking your calcium and iron supplements together, as they compete for absorption. It may seem like a lot of juggling of different foods, supplements, and timing of the two, but hopefully this kind of careful consideration and knowledge will boost your iron and calcium levels to new heights.

Farewell, fair Iron (and calcium) Maiden,

Alice!

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