Ask Leyla: Should iron and vitamin C be taken together?

written by Leyla Muedin MS, RD, CDN | October 10, 2024



Q: Are there some supplements that should not be taken together? I seem to recall reading that supplements containing iron and vitamin C should not be taken together, but I don't recall why.

Can you shed some light on the subject?

A: Vitamin C enhances the absorption of iron from supplements and iron-containing foods, such as heme iron from animal protein (meat, dark meat poultry, and seafood) and non-heme iron from plant foods such as spinach, lentils, peas and fortified grains. Heme iron is more bioavailable than non-heme iron. In fact, many plant foods contain phytates which bind minerals like iron, calcium and magnesium, limiting their absorption.

So for those who may need to increase iron intake—such as vegans, vegetarians, menstruating women and those with iron-deficiency anemia or low ferritin levels (the storage form of iron)—eating an iron-rich diet is essential, and taking a vitamin C supplement with those meals will enhance absorption. Supplemental iron, however, should *only* be taken by those with diagnosed with iron-deficiency anemia.

It's important to note that increasing iron absorption may be problematic for men and postmenopausal women with already normal iron levels. For these folks, the increase in iron may feed infection, and at very high levels become toxic to the heart. It is especially dangerous for those with hemochromatosis, an iron storage disorder where iron accumulates in organs of the body and can cause cirrhosis of the liver.

That's why whenever I recommend a multivitamin, it is typically one that doesn't contain iron. Most premenopausal women can safely take the amount of iron contained in a multivitamin (usually the RDA). And those who are low in iron can be helped by taking supplemental vitamin C with meals containing both heme and non-heme iron, or eat strawberries, red peppers an orange, or accompany your meal with a glass of lemon water if you prefer to get your vitamin C from food.

You can get more information on dietary iron sources here.

To your health!