Does cooking with cast iron pots and pans add iron to our food? [1]

Dear Alice,

Does cooking in a cast iron skillet supply any iron to your system? My husband and I have a disagreement.

Thank you,

Martha

Answer

Dear Martha,

Yes, cooking in a cast iron skillet can add significant amounts of iron to your food and into your body. In addition to eating more iron-rich foods like meats, beans, and spinach, cooking in a cast iron pot is an easy way to boost your iron intake.

Iron is an essential nutrient for all the cells in our body. Iron's main job is to help transport oxygen through hemoglobin in the blood and myoglobin in muscles. In order to function well, your body needs just the right amount of iron, which depends on your age and sex. A lack of iron in red blood cells leads to a condition known as iron deficiency [2] or anemia. On the other hand, too much iron can lead to a dangerous condition called iron toxicity [3]. Children under age three are particularly susceptible to iron toxicity, and symptoms include nausea, diarrhea, and hemorrhaging. To be on the safe side, avoid cooking foods for young children in iron pots. For more information about iron intake and nutrition, check out the related Q&As below.

Researchers have found that cooking in an iron skillet greatly increases the iron content of many foods. Acidic foods that have a higher moisture content, such as applesauce and spaghetti sauce, absorb the most iron. For example, one study published in the Journal of the American Dietetic Association found that the iron content in 100 grams of spaghetti sauce jumped from 0.6 mg to 5.7 mg after being cooked in a cast iron pot. Other factors that boost the iron content of foods include longer cooking time, frequent stirring, and using a newer iron skillet.

However, not all foods benefit from cooking in an iron skillet. For example, hamburger, corn tortillas, cornbread, and liver with onions didn't absorb as much iron. This was probably due to the shorter cooking times, and the fact that they were either turned once or not at all, resulting
in less contact with the iron. Cooks should also be aware that that iron pots and deep-frying don't mix. Iron can oxidize fats, causing the cooking oil to become rancid. If you want to deep-fry foods, stick with an aluminum or stainless steel pot, or better yet, try a healthier cooking method that still packs a lot of flavor like roasting, grilling, or using a marinade.

Foods cooked at home may vary in iron absorption based on the age of the skillet used and the amount of time the foods are heated. So, if you’re looking to increase your dietary iron, use a new cast iron skillet. After all, the iron in cookware is no different from the iron in our bodies, except we have much smaller amounts!

Alice!

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