

Your Plant-Based Teen Might Need Iron

From Tammy Russell, Integrative Health Care Practitioner

Emma is 16 years old and a junior at her high school. Over the last few years, she has been disgusted to learn about the ways animals are treated in factory farming practices. She gradually began to eat less meat and asked for fish and seafood instead. Soon, she avoided all forms of animal products. Her mother was unsure of what to make food-wise as she was accustomed to making rice and meat dishes, as is common from her own cultural upbringing. Emma assured her that she would find things to eat that would not continue to harm animals.

Over the next few weeks and months, Emma chose to fill her diet with ample amounts of pasta, bagels, nondairy cheese sandwiches, noodle dishes, fruits, and some vegetables. She occasionally ate a dollop of hummus every few days. She noticed that she had begun to nod off in history class and a few other classes too. It also seemed that she was catching every cold going around, and it was harder to concentrate while doing homework at night. Nonetheless, she was feeling great about the mission she was accomplishing with her diet. It made sense to her on every level.

One day, she fell during track practice, only to get a huge black and blue bruise on her outer thigh. Weeks went by, and the bruise lingered in nearly full intensity. By that time, Emma noticed several other bruises that refused to go away. She began to worry that maybe she was missing something. Upon discussing it with her parents, she got a checkup and discovered that her blood iron (hemoglobin) was at 10 gm/DL, when ideally it should be at least 13 gm/DL. The doctor told her that she absolutely needed to take an iron supplement as soon as possible. Emma agreed, but her mother wanted to know what else Emma could eat to boost her iron stores.

As a plant-based nutritionist who often works with families, I know this scenario is commonplace. Teen girls go vegan, vegetarian, plant-based in droves without much help in planning it nutritionally. The points to make about Emma and her diet/lifestyle are:

- She is a growing girl who is menstruating and running track.
- We didn't see many high iron foods in her diet.

What should Emma add into her diet?

- Beans such as black beans, white beans, chickpeas, black-eyed peas, azuki beans
- Lentils: brown, green, black
- Peas
- Dark green leafy vegetables such as kale, chard, spinach, collard greens
- Tofu, tempeh, natto and soybeans
- Seeds: pumpkin, sesame, hemp and flaxseeds
- Almonds, cashews, pine nuts and macadamia nuts
- Tomato paste

- Potatoes
- White mushrooms
- Palm hearts
- Prune juice
- Olives
- Mulberries
- Amaranth, oats, spelt and quinoa

Iron from vegetarian sources is in a non-heme chemical form. One can enhance absorption by combining it with foods rich in vitamin C. These are examples of ways to maximize absorption:

- Have a quinoa, kale and black bean bowl with tomato sauce and/or green peppers.
- Do not drink coffee or tea with meals as they can inhibit iron absorption by up to 90%.
- Have oatmeal pancakes in the morning with an orange or a glass of orange juice.
- Add broccoli, potato, tomato paste and/or green peppers to most meals. (1)

Other sources of vitamin C include lemon, lime, peaches, strawberries, cabbage, or cauliflower.

After two months of choosing at least two to three foods a day that are high in iron and combining them with vitamin C (along with a well-chosen supplement), Emma is feeling significantly stronger and more energetic and reports having more stamina. Her parents are happy to see her invested in spear-heading the healthy aspects of her lifestyle choice.

When deciding upon which iron supplement to take, a plant-based, non-constipating iron is usually a good bet.

These are brands I often recommend:

- Gaia Liquid Plant-Based Iron
- MegaFood Blood Builder – comes in smaller tablets if desired
- Global Healing Plant-based Iron
- Floradix Wheat-free Plant-based Iron
- MaryRuth Organic Vegan Liquid Iron

Work with a licensed health care practitioner to assess how much is needed.

Note: Do not take iron supplements (especially those under the age of 18) without consulting a physician first. Iron supplements can be dangerous for those with adequate iron stores.

Currently, in the US, it is estimated 2.4 million US children suffer from low iron (2). Teenagers may experience the symptoms of anemia (headaches, irritability, fatigue) without realizing what they are from. The American Academy of Pediatrics recommends more frequent blood counts in children/teenagers with risk factors for anemia, which include diets low in iron-rich foods, who also tend to be very physically active (especially female adolescent athletes) and/or girls with excessive menstrual bleeding. Obese teens can also have a higher incidence of anemia and should also be screened. It would be best to start this screening around the age of 13 and then re-do it annually or every few years (3).

If you feel that your diet is lacking or that of your child's diet is not meeting their needs, consider working with a dietitian to assess the nutritional adequacy of what you or they are currently eating.

Tammy Russell is an Integrative Dietitian and Reiki Practitioner who works with many plant-based patients and families in the Portland, Oregon area. She can be found at: www.modernnutritionalwellness.com or wellness@tammyrussellrdn.com

1. *Iron*. The Vegan Society. (n.d.). Retrieved March 13, 2022, from <https://www.vegansociety.com/resources/nutrition-and-health/nutrients/iron>
2. *Why young girls are at risk for anemia*. Chicago Health. (2018, January 12). Retrieved March 13, 2022, from <https://chicagohealthonline.com/young-girls-risk-anemia/>
3. G., B. J. M. G. J. W. M. F. (n.d.). *Iron deficiency in early childhood in the United States: Risk factors and racial/ethnic disparities*. Pediatrics. Retrieved March 13, 2022, from <https://pubmed.ncbi.nlm.nih.gov/17766530/>