Iron Deficiency Anemia Diet and Cancer

Do you have iron deficiency anemia? Here are some iron-rich foods that may help.

July 5, 2019 By Danielle Penick

Cancer treatment is often a long journey and many people experience side effects from treatment—some expected and some not so expected. One of the top side effects is iron deficiency anemia, which affects many cancer patients. Anemia is a condition where you don't have enough healthy red blood cells to carry adequate oxygen supply to the body's tissues. Iron is an essential component to make something called hemoglobin. This is a part of the red blood cells that are responsible for transporting oxygen throughout the body. Oxygen is delivered through the blood stream to other organs, skin, and muscles. The oxygen is used by the lungs and carbon dioxide is exhaled by the lungs. Iron is necessary for growth, synthesis of certain hormones and connective tissues, and for normal cellular functioning.

Anemia can affect your quality of life as a result of tiredness and fatigue because your cells don't get enough oxygen, which is like fuel for our bodies. It can shorten survival of cancer survivors due to a lack of oxygen, which can make your heart work harder. Iron deficiency anemia can also cause some cancer treatments to not work as effectively.

Unfortunately symptoms of iron deficiency only occur by the time that a person has extremely low iron levels so it's important to work with your doctor to find out if you are at risk and have your labs monitored. Most clinicians are quite proactive and monitor this through the duration of your treatments as iron deficiency is one of the most common nutrition deficiencies in the US and the leading cause of anemia. Common symptoms include weakness, dizziness, fatigue, pale skin and fingernails, or an inflamed tongue (aka glossitis).

A lack of appetite can worsen anemia, which is common during treatment. Anemia can be a result of poor diet choices, due to cancer itself, blood loss, or due to side effects from cancer treatments. People are often more at risk with platinum-based chemotherapies. Chemotherapies are myelosuppressive, which means they often halt the production of new blood cells made by your bone marrow. High doses of radiation can also damage bone marrow. Your bone marrow is responsible for producing all of your blood cells. So people with leukemia, lymphoma, or cancer that involves the bone marrow, are more at risk for anemia. However, bone marrow involvement isn't required for anemia to occur. People with cancers that result in frequent bleeding like stomach and colon cancers may also be more at risk.

It’s paramount for you to know the cause of your anemia so that it can be treated in addition to the cause. Your medical care team is well aware of this and will work with you to find the cause. Often iron deficiency anemia is treated with iron supplements, by eating foods rich in iron, with medications, and/or with a blood transfusion if the anemia needs to be treated quickly or even delaying cancer treatments. If anemia is a result of bleeding then iron pills and iron rich foods aren’t going to effect your iron levels very much however.

If iron-rich foods are an option, there are many food sources that you can focus on. Iron is either naturally in foods or it is added. Food sources of iron come from both animal and plant sources. Animals contain mostly heme iron which is better absorbed than the nonheme iron that is obtained from eating plant-based iron-rich sources. You can eat plant-based sources and still obtain a good amount of iron, but it will require more in-depth planning. Restoring iron levels with diet and supplements does take time, however—often taking months—so you may not see it reflected in your labs for some time.

Iron-rich foods

Animal sources: all meat (chicken, beef, turkey, lamb etc.), eggs, and seafood (tuna, shrimp, fish, oysters, etc.).

Plant sources: fortified cereals, dark green leafy vegetables, beans, tofu, molasses, nuts and seeds, whole wheat bread, peanut butter, brown rice, baked potatoes, dried fruit, instant oatmeal.

When eating nonheme iron-rich foods it’s best to combine them with vitamin C-rich foods for better absorption.

Vitamin C-rich foods: citrus, tomatoes, strawberries, cabbage, brussel sprouts, bok choy, asparagus, broccoli, cauliflower, collard greens, bell peppers, melon, papaya, kale, kiwi, sweet potatoes, and mangoes (among many others).

Combinations for nonhdme iron-rich foods and vitamin C-rich foods could include pairing spinach with lemon juice, cereals with berries, or beans and bell peppers. Of note, iron-fortified foods are nonheme iron. Meat and seafood contain both heme and nonheme iron.

Iron-rich supplements

If you need an iron supplement there are various forms that contain different amounts of elemental iron. Elemental iron is the total amount of iron in a supplement that is available for absorption by your body. For example, ferrous sulfate is more bioavailable than ferric iron. You doctor may recommend one form over another depending on your individualized results. It's important to note that high does of iron are known to cause nausea and constipation so working with your doctor on the right dose for you is important if you are experiencing this. If you do become constipated then you can also try to incorporate some nutrition strategies for managing this side effect as well. I have written about this in a prior post here for reference.

It's also helpful to know that calcium supplements may interfere with the absorption of iron, but it is not confirmed. Some clinicians may recommend that if you are taking a calcium supplement, that you take it at a separate time as your iron supplement.

Getting cancer treatment can result in undesirable side effects, but often many are treatable. Taking a proactive approach can help ease or prevent them. Talk with your medical care team and if available, a registered dietitian to help you formulate a plan that's right for you.

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