

How's Your Iron? Dr Paul Martiquet, Medical Health Officer

Iron is an essential part of every body — how's yours?

Before jumping into the answer, perhaps we need to look at the role of iron in our bodies. At its simplest, iron is an essential nutrient which helps to build red blood cells, carry oxygen throughout the body, and helps the brain to function at its best.

Iron is found mostly in haemoglobin, the part of red blood cells that carry oxygen from the lungs to body tissues. Much of the iron we absorb is stored in bone marrow where blood cells are made. When there is not enough iron in the bloodstream, the body uses its bone marrow reserves. As depletion occurs in the marrow, red blood cells do not form properly, resulting in less haemoglobin available to transport oxygen throughout the body.

Eventually, the iron shortage creates a condition called iron-deficiency anemia. This is not an actual disease. Rather, it is a condition caused by other problems. There are three main ways to develop anemia. Blood loss, most commonly from menstruation —women ages 19 to 50 are most susceptible to low levels of iron. Low production of blood cells is a second way to develop anemia. This is usually the result of insufficient iron in the diet. Thirdly, rapid destruction of red blood cells can lead to anemia. The body can only produce so many blood cells per month so if the body is destroying them at a higher rate, anemia will result. (Red blood cells are mostly broken down in the spleen, the organ which filters blood and removes undesirable material.)

Anemia can leave you feeling tired, weak, out of breath, and irritable. Its physical symptoms include pale skin, rapid heartbeat, brittle fingernails and toenails, cracked lips, and a smooth, sore tongue. Iron deficiency in the body occurs in two stages. First, the body uses up its stores of iron and begins to deplete them. As stores are eliminated, red blood cells become smaller, pale, fewer, and less able to carry oxygen. Iron deficiency anemia is stage two where the shortage can interfere with the digestive system and reduces the body's ability to fight an infection.

Getting iron into your body is quite simple, though not all dietary iron is the same. Heme iron, easily absorbed into the body, comes from animal sources: meat, especially beef, fish and poultry. Non-heme iron is mainly found in whole grains, fortified breakfast cereals, nuts, seeds, legumes, leafy green vegetables and dried fruits. Though these foods contain lots of iron, it is in a form not easily absorbed.

People who eat little or no meat/fish/poultry need to be aware that they are more likely to face an iron shortage. To absorb the same amount of iron from non-heme sources, a person must consume almost twice as much (1.8 times, to be exact) iron as someone consuming heme iron. Foods high in vitamin C will help absorption of non-heme iron. Avoiding coffee and tea with meals will also help as these beverages reduce the absorption of iron.

Iron is an important nutrient — make sure you are getting yours.

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Dr Paul Martiquet is the Medical Health Officer for the Coast Garibaldi Region including Powell River, the Sunshine Coast, Sea-to-Sky, Bella Bella and Bella Coola.