

Why is iron so important?

Iron is involved in a wide variety of metabolic processes, including oxygen transport, DNA synthesis, and energy production.¹ In the human body, it is needed for the proper functioning of many systems, including the heart, muscles and red blood cells. It also plays a vital role in the immune system,² the development of the brain^{3,4} and cognitive function.⁵

What is iron deficiency?

Iron deficiency is a health-related condition where there is not enough iron available to meet the body's needs.⁶ It can occur with or without iron deficiency anaemia.⁶

Prevalence of iron deficiency

Iron deficiency is very common; present in one-third of people globally.⁷ Specifically, it is one of the few nutritional deficiencies still widespread in developed countries.⁷ It is most prevalent in premenopausal and pregnant women and children under the age of five.⁸ In Europe, for example, iron deficiency affects up to 33% of pre-menopausal women, up to 77% of pregnant women and up to 48% of children.⁸ Iron deficiency is also frequently associated with chronic inflammatory diseases.⁹

Effects

The consequences of iron deficiency differ from person to person, but it can be linked to an overall decline in general health and well-being, as well as an increase in fatigue.¹⁰ Even in the absence of anaemia, iron deficiency can be debilitating, and exacerbate any underlying chronic disease, leading to increased morbidity and mortality.⁶ In children, iron deficiency can significantly impair cognitive and motor development.¹¹

Causes of iron deficiency

People of all ages can become iron deficient, but there are certain times in life, as well as lifestyle choices, that can make it more likely to happen:



Blood loss. The blood lost during menstruation (periods) means that pre-menopausal women need up to twice as much iron in their diet as men to avoid becoming iron deficient.¹² Women who have particularly heavy periods are more prone to iron deficiency and should discuss this with a healthcare professional. Blood loss is also contributing to development of iron deficiency in patients with inflammatory bowel diseases (IBD), chronic heart failure (CHF) and chronic kidney diseases (CKD).⁶



Inflammation. The inflammation associated with certain long-term conditions, such as IBD, CHF or CKD can reduce the amount of iron absorbed by the gut and therefore lead to iron deficiency.⁶



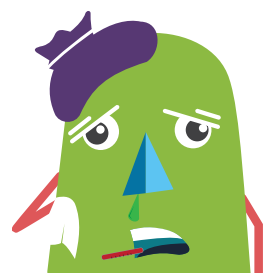
Medications. Some medications used in the treatment of IBD, CHF or CKD can lead to blood loss, resulting in further risk of iron deficiency.⁶



Growth. Iron is needed for the body to grow – so during times of growth, the need for iron increases. This includes pregnancy, infancy (in children under five years old) and adolescence.¹³



Diet. Iron can be found in both animal products and plant foods, but iron from animal products is better absorbed by the body.¹⁴ Foods rich in iron include red meats (liver, steak etc.), eggs, pulses, beans, nuts and seeds.¹⁵ Restrictive diets, either by choice (vegetarian or vegan diets) or due to chronic illnesses (e.g. kidney disease), can increase the risk of iron deficiency.^{16,17,18}



Diagnosing iron deficiency

The symptoms of iron deficiency are varied and can be similar to those of other conditions, making a diagnosis challenging.^{6, 19} The Symptom Checker, available on www.irondeficiencyday.com, can help people identify the symptoms they might be experiencing, which can then be discussed with a healthcare professional.

If a healthcare professional suspects iron deficiency, they will arrange for a blood test to check the red blood cells, haemoglobin and iron levels.¹⁹ This is a simple procedure that requires a small sample of blood, usually from the arm. A laboratory will test the blood for several different things which can confirm iron deficiency, and if so, how much iron is lacking. The amount of iron required by the body varies between people, so healthcare professionals need to assess what the next steps should be.²⁰

For specific information about iron levels, check out our infographic www.irondeficiencyday.com/resources. And for more information and resources about iron deficiency and iron deficiency anaemia please browse the materials available at: www.irondeficiencyday.com/resources.



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