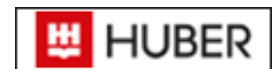


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**Abstract**

Full text links



Ther Umsch. 2010 May;67(5):219-23. doi: 10.1024/0040-5930/a000040.

**[Iron deficiency and iron deficiency anemia - symptoms and therapy].**

[Article in German]

Brunner C<sup>1</sup>, Wuillemin WA.**Author information****Abstract**

Iron is an important element of the body and is involved in many physiological processes. Most of the iron is in the erythrocytes as hemoglobin, although iron is found in many of the proteins involved in the utilization of oxygen. Iron deficiency is the most prevalent single nutrient deficiency and is worldwide the most common cause of anemia. Nonhematological manifestations of iron deficiency may give rise to unpleasant symptoms such as fatigue, reduced physiological endurance, difficulty in regulating temperature, decreased cognitive performance and many more. Investigation on the cause of iron deficiency is important, because iron deficiency is not a disease but only a symptom of an underlying disorder. Transport of non-haem iron from the proximal intestinal lumen into the enterocytes is mediated by the divalent metal transporter 1 (DMT1). Ferric iron must be first reduced to ferrous iron by a membrane bound reductase. Ferroportin mediates export of iron into the blood where it is bound to transferrin and transported to the macrophages. Storage is mediated by ferritin. Based on serum ferritin levels and eventually on the degree of anemia, the total amount of iron necessary to correct iron deficiency is calculated. Iron can be substituted by oral iron preparations or, if indicated, by intravenous iron.

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