Not all iron is the same

A new iron formula revolutionizes orthomolecular supplemental nutrient therapy

Life Force Iron

Main causes of iron deficiency

Nutrition-related Deficits

- unbalanced diet
- gastro, intestinal and metabolism disorders
- eating disorders/diets
- allergies

Increased Need for Iron

- pregnancy & nursing period
- vegetarian/vegan diet
- sports
- during growth and development
- stress, mental performance

Low Iron Resorption

- food: Meat, fish 10 – 15 %, plants 3 – 6 %
- preparations with iron(II) oxide ⇨ 6 – 9 %
- preparations with plant-based iron ⇨ 3 – 6 %

Increased Loss of Iron

- heavy menstrual bleeding
- hemorrhoids
- irritations of mucous membrane
- blood donation

1. Why this brochure is important for you!

Globally, more than 1 billion people are affected by iron deficiency. According to statistics, iron deficiency is one of the most frequent deficiency disorders in Europe. This is especially true for women (20 %), growing children, and people with digestive and metabolism ailments.

Moreover, particularly athletes in endurance sports (50 %) have an increased need for iron due higher content of hemoglobin and myoglobin, and increased iron losses in sweat and urine.

2. Why does the body need iron?

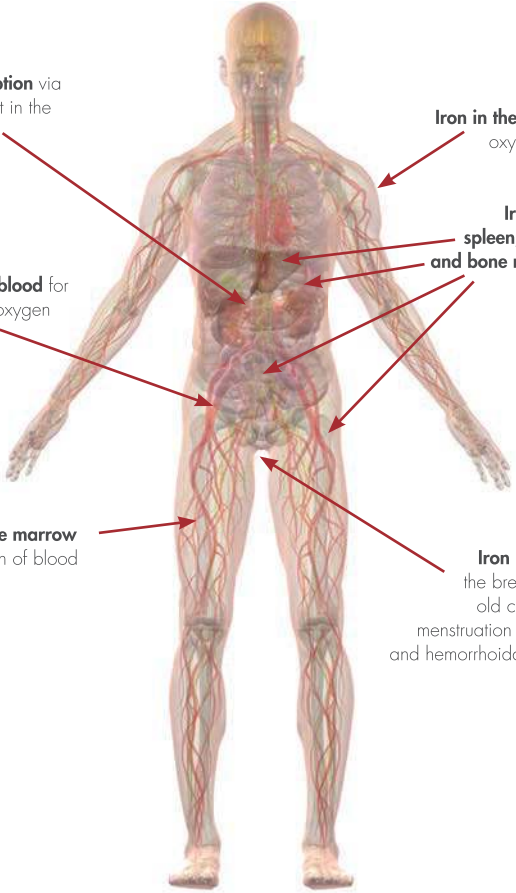
Iron is of essential significance for the body. It cannot be produced inside the body and needs to be supplemented. Depending on body weight, the body contains 2 – 4 g of iron. About 60 % thereof can be found in the blood (hemoglobin), 25 % in the

intestinal mucous membrane, liver, spleen, and bone marrow (ferritin) as well as 15 % in the muscles (myoglobin) and the enzymes.

Iron is indispensable for many body functions:

- **production** of red **blood cells** and hemoglobin
- **oxygen transport:** Via iron in the red blood pigment hemoglobin every cell (organs, tissue, bodily fluids, etc.) is supplied with oxygen.
- **energy metabolism:** It plays a significant role in the energy power centers (mitochondria) of every cell of the body.
- **mobility/movement:** Within muscle tissue, iron functions as an oxygen storage tank (myoglobin) and enables its activity.
- **enzyme functions** and the **formation of hormones**, which in turn perform many tasks and cannot take place without iron.
- **nerve cells** communicate via the transmission of bio-electrical signals. This also requires iron and explains why an iron deficiency has an effect on **concentration, functions of the brain and nerves** as well as reflexes.

Iron in the body



Iron absorption via iron-rich diet in the duodenum

Iron in the muscle as oxygen carrier

Iron in liver, spleen, intestines and bone marrow as stored iron

Iron in the blood for binding of oxygen

Iron in bone marrow for formation of blood

Iron loss due to the breakdown of old cells, during menstruation for women and hemorrhoidal bleeding

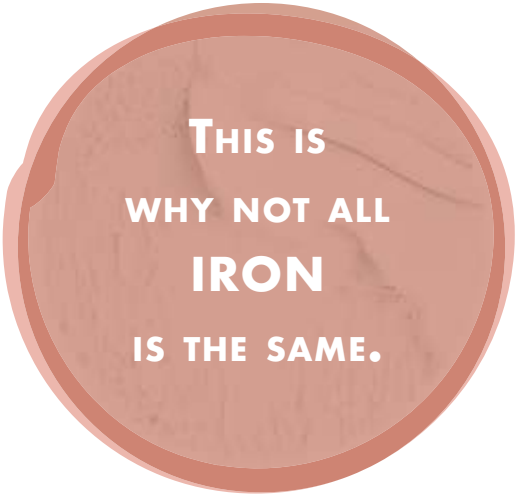
3. Characteristics of iron absorption in the body

For iron to be optimally absorbed and metabolized, the body needs bio-electrical energy. This special energy delivers a proton-donator-rich compound, i.e. a bio-chemical compound, whose molecules can give off free electrons. Such a compound possesses an oxidative electric potential (ability to absorb electrons) as well as a reductive electric potential (ability to release electrons).

Absorption of iron in the intestines

Iron absorption predominantly occurs in the mucous membrane cells of the duodenum. The organic proportion and the acidic pH value of the aforementioned energy-rich, bio-energetic compound further optimizes iron absorption in the intestines.

In the various stages of iron metabolism, the organism converts bivalent iron oxide (Fe^{2+}) into trivalent iron oxide (Fe^{3+}) over and over, and then back to iron2^{+} again. Iron2^{+} is mainly needed in the blood (hemoglobin) and the muscles (myoglobin). On the contrary, iron3^{+} serves as a transport iron and is found in the iron storages.



4. Nutrition and iron

The daily requirement of iron which should be provided by a balanced diet amounts to 10 – 15 mg for a healthy adult male. For women, due to menstruation, during pregnancy and while nursing, the daily requirement increases to up to 20 mg.

Regardless of sex, people with a vegetarian/vegan diet, children/youth during growth and development, and people of advanced age have a higher need of iron as well. Increased loss of iron due to chronic loss of blood (e.g. hemorrhoids), gastritis, intestinal infections, chronic open wounds on the legs, kidney/urinary infections, etc. also results in an increased need for iron.

Utilization of iron from the diet

Not every iron compound is equally usable for the body. On average, only 5 – 10 % of the iron ingested actually gets into the metabolism. The rest is discharged in the stool, unused.

Many substances in our food, drinks, medication, etc. additionally influence iron intake in a negative way. These materials combine with iron to form not compounds which are not easily soluble and cannot be absorbed in the intestines. These are, for instance, oxalic acid (spinach, chard), certain polyphenols (coffee, green/white/black tea), zeolites and other aluminum-containing preparations.

5. Not all iron deficiencies are the same

Nutritional deficiencies often creep in over an extended period of time. We only notice them once we can see obvious signs. Since the deficiency has already existed for a long time, it is more difficult to remedy it. Very often, an iron deficiency is noticed due to a decreased physical/mental performance power as well as by unspecified health complaints.

Once can distinguish between
- iron deficiency anemia and
- iron deficiency syndrome

Iron deficiency anemia

In this case, a chronic iron deficiency in the blood already exists for the transport of oxygen (hemoglobin) and the storage of iron (ferritin). a diagnosis by the physician is made, based on a hemogram and control of lab results.

Iron deficiency syndrome

This iron deficiency can neither be noticed through a blood test nor with blood values. It is an iron deficiency which exists in the **muscles (myoglobin)** and in the **enzymes.**

Myoglobin iron deficiency

Myoglobin is a muscle protein which, as the red muscle pigment, is co-responsible for the supply of oxygen to the muscles. A myoglobin iron deficiency is predominantly the cause for **chronic muscle tension, muscle pain, muscle weakness,** etc.

Enzyme iron deficiency

This deficiency is the most common but also the most difficult to detect. Enzyme iron is need for the formation of hormones (i.e. the "metabolism hormone" cortisol, the "sleep hormone" melatonin as well as the "happiness hormone" serotonin). Enzyme iron enables a multitude of functions in the **metabolism, the immune system, the production of energy (ATP),** and others. Consequently, a deficiency will be the cause for diverse disorders.

Iron deficiency symptoms and signs

Symptoms

- states of exhaustion
- concentration disorders
- headaches
- restless leg syndrome
- sleep disorders
- muscle tension
- drop in performance
- dizziness

Signs

- loss of hair
- brittleness of nails
- depressive mood
- low immunity
- skin/mucous membrane diseases
- increased allergy potential
- hormonal disorders
- digestive disorders
- gastritis, chronic inflammation

6. Therapy

An already existing iron deficiency can hardly be balanced out by diet alone. Therefore, in cases of iron deficiency anemia and also iron deficiency syndrome, as well as for the preservation of vitality and health, physicians suggest dietary supplements with new and effective iron preparations over a longer period of time. When used appropriately, the intake of iron preparations with bivalent and trivalent iron supplies the body with the missing iron and replenishes the body's own stores.

A physiologically effective iron preparation is essential for successful therapy. It consists of an organic compound and two oxidation states of iron (iron2^+ and iron3^+). Due to this fact, this bio-regulative, organic iron compound possesses a high, electromagnetic impact potential and reaches all stages of the iron metabolism. Such an energy-rich iron compound shows a bio-availability of almost 100 % and is able to protect the sensitive mucous membranes in the gastrointestinal tract.

Our blood needs three essential factors in order to perform its various functions:

- an alkaline pH value (between 7.35 to 7.45)
- physiological salts (electrolytes) and
- iron2^+ and iron3^+

For this reason, physicians use such a preparation not only for iron deficiency but also as a nutrient therapy for a bio-electrical energy deficiency such as fever, diarrhea, traveler's diarrhea, infectious diseases, rhinitis, pharyngitis, gastric and intestinal catarrh, cystitis, gout, rheumatism, arthritis, cardiac insufficiency, impaired blood supply to the brain and periphery.

Knowledge creates perspective!
Answers for questions about health
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New chances for many people

Sometimes even an especially iron-rich diet is not enough to sustainably balance a nutrient deficiency of iron. In such situations, experts advise a targeted supply of iron in nutritionally balanced quantities. Numerous studies confirm that conventional ferrous compounds can cause gastro-intestinal side-effects such as nausea, vomiting, constipation, diarrhea, or inflammation of the gastric mucous membrane.[4]

Among the various possibilities of additional iron intake, one new iron formula has been described as readily bio-available and tolerable. It distinguishes itself from the previously known formulas by the combination of iron2+ and iron3+ and an optimal pH value. Thereby, this new organic compound has an additional astringent, mucous membrane-protective effect.[2]

IronOxydulOxyd

A new bio-regulative, organic iron formula as a chance for many people.

- acetic, organic iron compound[2]
- Iron2^+/iron3^+ combined[2]
- optimized iron intake[2]
- good bio-availability[2]
- very good tolerance[2]
- QUANTENFELD-AKTIV® extra strong

The development of this special iron formula is based on the combined knowledge of bio-chemical, physical, chemical and medical findings. An elaborate production process guarantees that iron2^+ and iron3^+ is equally available to the body for an optimal absorption of iron.

Thus, this readily bio-available iron is provided for:
- hemoglobin and red blood cell production
- oxygen transport
- iron stores
- immune system function
- mental/cognitive functions, as well as
- energy production

LICHT- & QUANTENFELD-AKTIV®

The patented light quantum activation processes as well as quantum field activation are being used for the production of this iron compound. The use of high light and quantum field energy brings about bio-chemical and bio-physical reactions which enable electro-chemical and bio-magnetic energies to be stored in the bio-chemical compound.

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Learn more about light quanta, their properties, significance, and production in the book "Die biophysikalischen Grundlagen der Licht-Quanten-Medizin" by Dr. Ewald Töth (ISBN 978-3-9501834-6-7), available at www.lichtquanten-verlag.at

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Dr. Ewald Töth®

BE CONSCIOUSLY HEALTHY

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STOFFWECHSEL-EISEN-ENERGETIKUM

with bi- and trivalent, organically bound iron, supports oxygen transport, blood formation, energy metabolism, as well as memory & concentration.

BASEN-MINERAL-MISCHUNG

A proven combination of bio-active mineral substances and zinc contributes to an active support of the acid-base metabolism.

PHYSIOLOGISCHE-STOFFWECHSEL-SALZE

Contributes to the energy metabolism, physical and mental health, as well as performance.

Nutrition Supplements

Iron contributes to normal blood formation, oxygen transport, energy production, the normal function of the immune system, and to normal mental/cognitive abilities. Zinc contributes to a regulated acid-base balance. Calcium, iron, magnesium, manganese, and phosphorus contribute to maintaining a normal energy metabolism. Manganese contributes to protecting the cells from oxidative stress. Iron and magnesium contribute to reducing fatigue. Calcium, magnesium and potassium contribute to normal muscle function.

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