

Iron Deficiency

The Iron Deficiency Syndrome

The Optimised Diagnostic and Therapeutic Strategy

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1. Iron Deficiency

Iron deficiency is our most widespread epidemic, with one quarter to one half of the world's population being affected. So why don't doctors learn about it, either as medical students or during their later career? Don't the university professors know? Or maybe they just don't want to tell anyone?

Iron deficiency can cause symptoms such as fatigue, depression or sleep problems, for example. There are altogether nine different symptoms which are described as belonging to the recently discovered iron deficiency syndrome.

Iron deficiency is not only a problem of the third world, where undernutrition is rife anyway. In the so-called first world, too, half of all schoolchildren suffer from iron deficiency with its attendant effects (difficulty concentrating, lack of drive, irritability, tiredness). And the problem is not limited to schoolchildren – a good half of all women of menstruating age are also affected. Not to mention the elderly and athletes, who are also candidates for iron deficiency.

All in all, the number of affected people in Europe alone is substantial. If we take the population of Europe to be half a billion then we can assume that about 125 to 250 million Europeans suffer from iron deficiency. In the small country of Switzerland alone there are more than two million.

It appears that the universities, the pharmaceutical industry and governments regard this situation as normal, that they are not particularly bothered if millions of people feel unwell because of iron deficiency and therefore consume symptom-suppressing medicines costing millions of Swiss francs. At any rate, medical students learn that a low blood level of ferritin of 10 or 20 ng/ml is normal – a level at which the majority of people do not feel well.

Or don't the academics and people in high places know any better? It is quite possible that conventional scientific method – with its in our eyes restricted approach – was not able to research the iron deficiency syndrome for "technical reasons". The science practised in the last decades has limited itself almost exclusively to objective measurement of parameters of our tissues and body fluids. The sick person as a whole, let alone as individual personality, has never really been taken into account in research up to now.

Only patient-oriented research allows us to document patients' subjective perceptions and experience, to compare them with the objective data and thus to obtain far more comprehensive, i.e. also more informative values. It was only this approach, incidentally, which made it possible to discover the iron deficiency syndrome in the first place.

2. The Functions of Iron in the Body

Every nurse and every doctor knows that iron is needed for making red blood cells (haemoglobin synthesis). This is the absolutely most important function of iron for our metabolic processes (oxygen transport). But no-one learns at medical school that there are a further 179 bodily functions which are dependent on the presence of sufficient iron. And that therefore a shortage of iron in the body can perceptibly cut back these functions and cause

appropriate symptoms – this is something that is not mentioned in any lecture either. Here are just seven of the 180 bodily functions known to be dependent on iron:

- Haemoglobin production (oxygen transport in the blood)
- Myoglobin production (oxygen transport in the muscles)
- Energy production in the mitochondria
- Hormone production
- Keeping the immune system healthy
- Breakdown of harmful free radicals
- Production of ground substance

When the body is no longer able to produce enough haemoglobin the iron deficiency has already reached an advanced stage. The body 'knows' that a haemoglobin deficiency is life-threatening. Therefore it first of all uses the iron it has left to secure the production of haemoglobin and shuts down other iron-dependent functions – either one after the other or often several at once. Only 5% of patients with iron deficiency have anaemia.

Physical fatigue and reduced stamina can be explained by insufficient energy production by the cells which is often the case when there is an iron deficiency. If the mitochondria, the little power stations contained in each of our cells, receive too little iron the cells soon suffer from lack of energy and their performance declines. The consequences are poor concentration and general fatigue. In principle it is just like an engine that isn't given enough fuel.

Interesting associations can also be seen with regard to hormone production: If too little happy hormone (serotonin) is produced because of a shortage of iron a person can start to feel depressed. Supplying the body with iron in the form of infusions gets the hormone production going again. The result: In most cases the depression disappears 'of its own accord'.

We could look at each of the 180 iron-dependent body functions in this way with regard to iron deficiency and its consequences. For example, what happens if function 98 is cut back? Or function 137? Questions like this could lead to research which would open up new perspectives for patients and their doctors. And if we take these thoughts a step further we realize that iron deficiency is not an isolated occurrence. For example, the official lower limit of the normal range for vitamin B12 is so low that many people suffer from a vitamin B12 deficiency despite having normal laboratory results. The same probably applies to zinc, selenium and other orthomolecular substances. The lower limits of the 'normal range' are so low that many people with these allegedly normal values feel unwell – just as in the case of iron.

3. The Iron Deficiency Syndrome

The iron deficiency syndrome was intensively researched between 2000 and 2006 and first described in 2006. It consists of a group of symptoms which can occur in iron deficiency.

1. Fatigue
2. Difficulty concentrating

3. Emotional instability, depression
4. Dizziness
5. Sleep disturbances
6. Tense neck muscles
7. Headaches
8. Hair loss
9. Brittle nails

The experience obtained to date indicates that fatigue, poor concentration, emotional instability, tense neck muscles and sleep problems can be regarded as early warning symptoms.

People who suffer from the symptoms in question and also have low ferritin levels benefit in most cases from rapid replenishment of the body's iron stores by means of iron infusions, provided that these are given by appropriately qualified specialists.

If a patient's depression disappears after iron infusions we can justifiably assume that the patient was suffering from iron-deficiency depression. Analogous statements can be made about various other symptoms. For example, we can justifiably speak of iron-deficiency fatigue, iron-deficiency insomnia, iron-deficiency dizziness, etc.

The medically run Iron Clinics are performing pioneer work in this respect. They provide 'tailor-made' causal treatments. This means that the individually necessary amount of iron is infused in as short a time as possible so that an optimal treatment outcome can be expected. As it is the details that count for safe treatment and rapid, lasting results, knowledge of Advanced IDS Management (optimised treatment of iron deficiency) is necessary. Only the application of this strategy permits a consistent success rate of 50 to 80% (depending on the symptom).

4. Advanced IDS Management (AIM). A Diagnostic and Therapeutic Strategy

The optimised diagnostic and therapeutic strategy called Advanced IDS Management (AIM) was developed during and after the research into the iron deficiency syndrome. One of the aims of the research was to answer to the question: How can iron deficiency symptoms be eliminated as quickly and lastingly as possible? This of course also implies the question: Are the symptoms really the result of an iron deficiency? The faster the symptoms disappear in response to administration of iron the clearer the answer will be. So an optimal treatment strategy was needed.

The Iron Clinics have the necessary expertise.

AIM consists of the following steps:

- **Suspected diagnosis:**
 - Clinical Score IDS (Questionnaire)

- Measurement of the blood level of ferritin

- **Indication for treatment:**

- Deciding whether iron infusions are necessary
- Exclusion of contraindications (conditions or circumstances in which iron infusions should not be given)
- Exclusion of dangerous diseases which might underlie the symptoms

- **Rapid replenishment of the iron stores with individually dosed intravenous iron infusions:**

- Determination of the individually necessary amount of iron
- Determination of the frequency of the infusions

- **Confirmation of the diagnosis:**

- To what extent were the symptoms due to the iron deficiency?
(The more and faster a symptom improves after the iron infusions, the greater the likelihood that it was due to iron deficiency)

- **Evaluation of the therapeutic outcome:**

- Relapse prevention or initiation of an
- individual second-line treatment

5. Science and the Iron Code

Medical research has so far confined itself to the study of objectifiable statements, i.e. to the measurement of objective realities. As a result, subjective realities were simply overlooked. Patient-oriented research, however, extends this limited scientific method by also documenting and analysing subjective realities. This showed, for example, that people with low ferritin levels suffered from various symptoms which were largely subjective in nature.

Poor concentration, a depressed mood or headaches cannot be demonstrated objectively. Therefore the very existence of these symptoms was often questioned or they were defined as having psychological causes. The only iron deficiency symptom which can currently be demonstrated with 'instrumental' scientific methods is anaemia. A test strip and a drop of blood are all that is needed and 60 seconds later the machine spits out the result.

It is not quite as easy in the case of depression. How can negative feelings of this kind be measured? By a blood test? By means of an X-ray or maybe by studying a questionnaire completed by the patient? The machines of conventional medicine can't tell us that depression can be caused by iron deficiency. For that we need doctors with empathetic skills and a fundamentally patient-oriented attitude. They must be willing and able to take their patients seriously, to treat them as equals and integrate them in the treatment. Only with this kind of doctor-patient relationship can the patients expect to receive optimal treatment.

Under these conditions people suffering from burnout (general exhaustion) or chronic fatigue syndrome are increasingly benefiting from the appropriate treatment. In addition, there is more and more evidence that children with ADS (so-called ritalin children) often suffer from iron deficiency and can therefore benefit from iron infusions.

Through the extended scientific method outlined here the Iron Code has made it possible to show that the nine symptoms of IDS comprise a group. Previously unspecific symptoms have thus been given a specific framework.

The Iron Code does not only stand for the decoding of iron deficiency symptoms. In our opinion it also stands for a fundamental rethinking in medicine. By incorporating the subjective statements and reports of patients in our research we can obtain far more insights than was previously possible with the objective approach of conventional scientific method alone.

What if we were to study other deficiency states apart from iron deficiency and call them by their true name? Maybe, or even very probably, we would together recognize the causes of hitherto undiscovered diseases and be able to treat them more effectively, with fewer side-effects and surely more economically.

6. Outlook

Probably for the first time in the history of medicine, we have a situation in which many sick people are asking for a treatment that doctors were not taught at medical school. In Switzerland, and increasingly in Germany and Austria too, people are becoming aware of the existence of the iron deficiency syndrome and beginning to call for an appropriate treatment. Should this process of increasing awareness gain momentum, great numbers of people will – if they receive appropriate treatment – come to realise for the first time that they possess tremendous regenerative powers.

This prompts us to ask: What would happen if all people on the planet with iron deficiency suddenly had enough iron in their bodies? The world's population as a whole would undoubtedly be healthier. On the basis of our experience since 1997 we can paint the following picture:

- People with full iron stores suffer less often from iron deficiency symptoms than people with iron deficiency.
- People with full iron stores have fewer health problems and go to the doctor less often. They evidently have a more competent immune system.
- People with full iron stores are usually happier. After all thanks to the full iron stores their production of serotonin (happy hormone) is in full swing.
- People with full iron stores usually sleep better as they have sufficient levels of sleep hormones.

What about other deficiency states? Our experience shows that most people with a ferritin deficiency also have a vitamin B12 and zinc deficiency. Insufficient intake of these substances can also lead to fatigue, poor concentration, headaches, hair loss or depression. Even if the values are at the lower end of the normal range, i.e. officially still normal. If we continued to follow prevailing opinion no replacement therapy would be necessary for these deficiency states (after all, they are not recognized as deficiency states). Nevertheless, the patients are given the 'pleasure' of other treatments, usually drugs. In most cases the treatment is palliative, i.e. aimed at easing symptoms rather than treating the cause. The treatment of iron deficiency patients by rapid replenishment of the iron stores with iron infusions, on the other hand, is curative, i.e. a treatment aimed at curing the disease.

If the orthomolecular foundation of the human organism is in an optimal state (i.e. there are no deficiencies) this appears to provide protection against many pathogenic influences. And this leads us to ask:

Will the insights and experience presented here about illnesses which can be simply and effectively treated revolutionise our health care system?