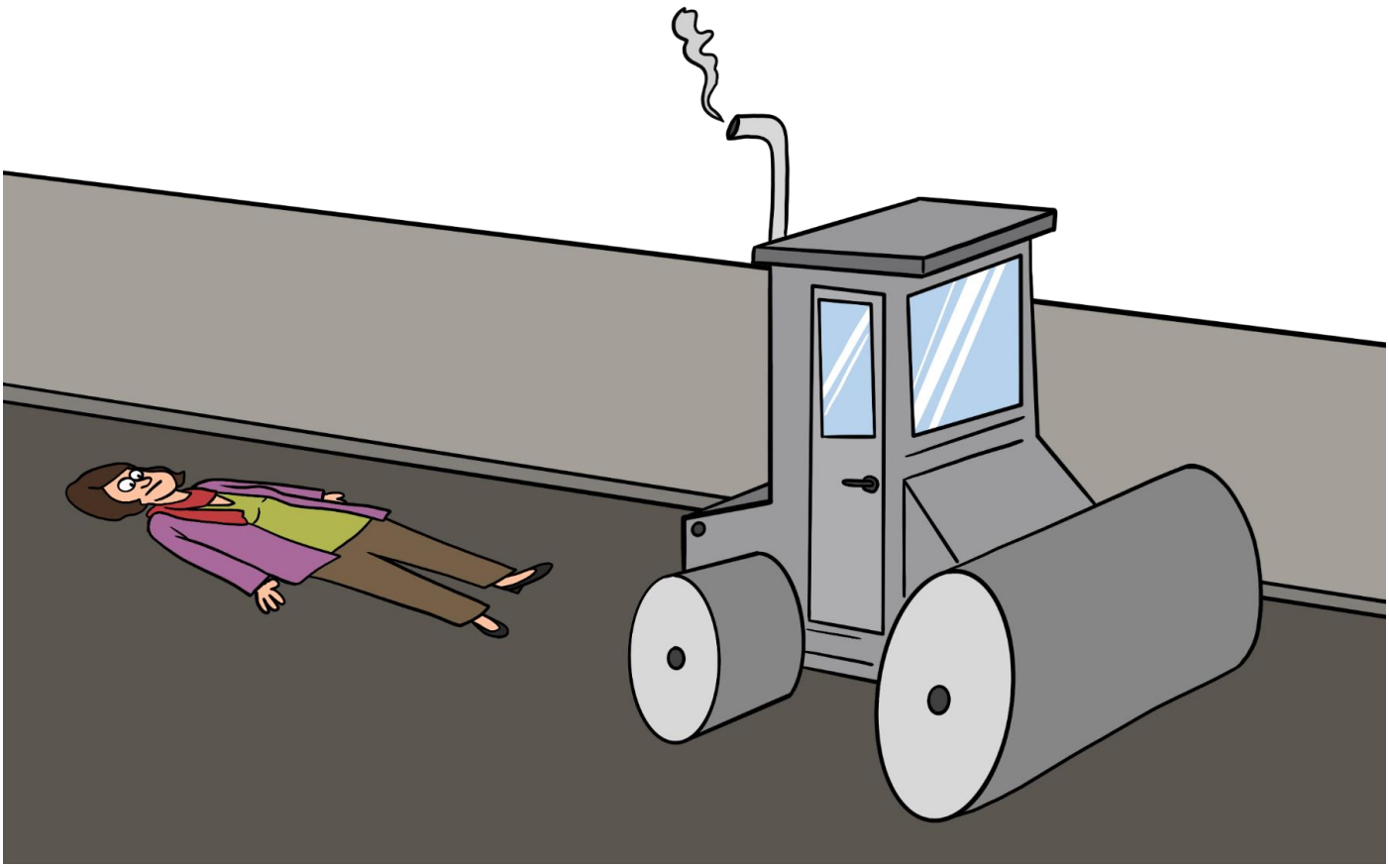
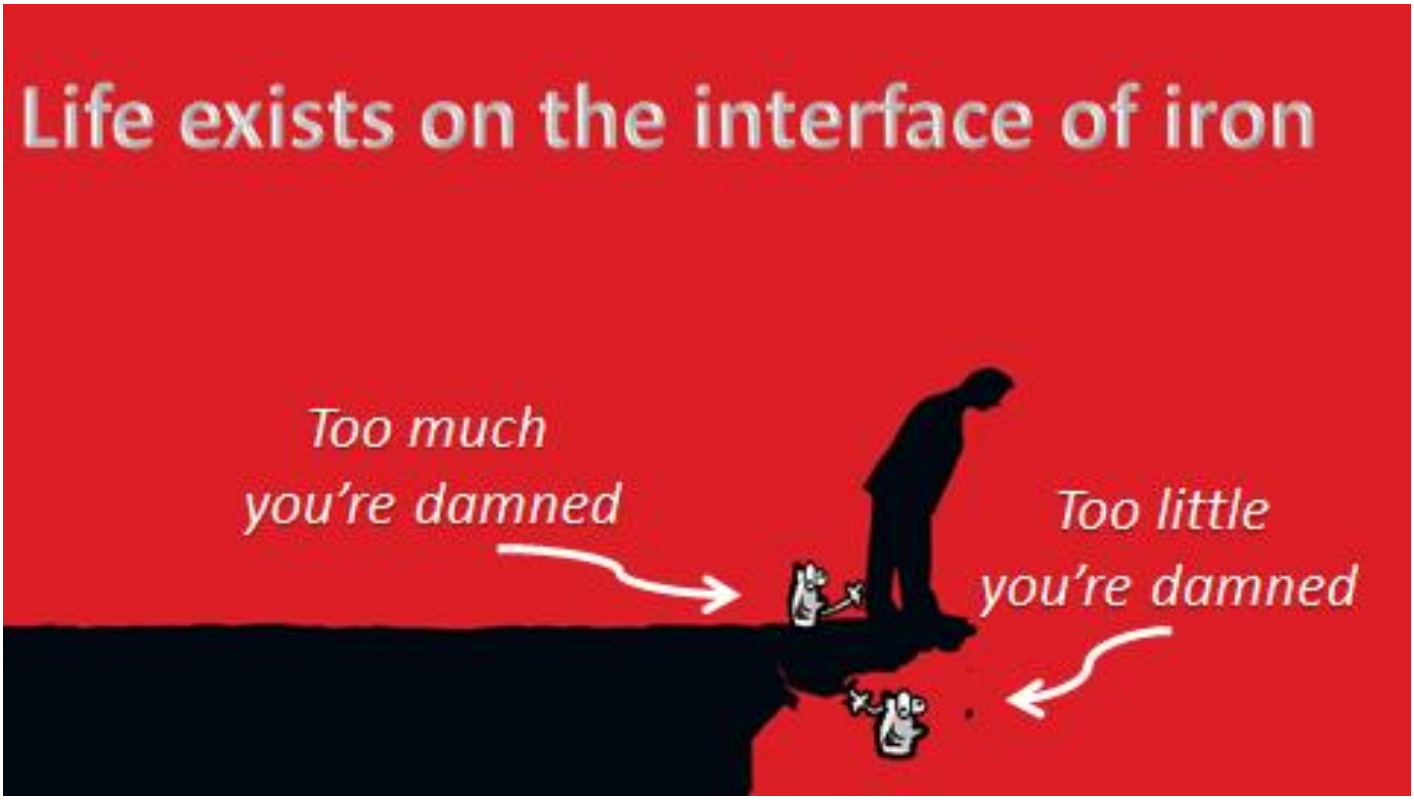
Diagnosing your Iron deficiency

By Dr Sandy Evans





This is **the caveat**….

It is important to remember, that iron is both needed and toxic, at the same time – so you should only consider taking extra iron, IF YOU NEED IT.

I do NOT recommend you rush out and buy an iron supplement.

First because it is potentially "dangerous" if you don't need it, and second, because thanks to the biology……. it's unlikely to work quickly, which is your goal.

You're looking to "Reclaim you Mojo" – **sooner** rather than later.

You need to use blood tests to establish your iron status and you need to know how to interpret the blood tests.

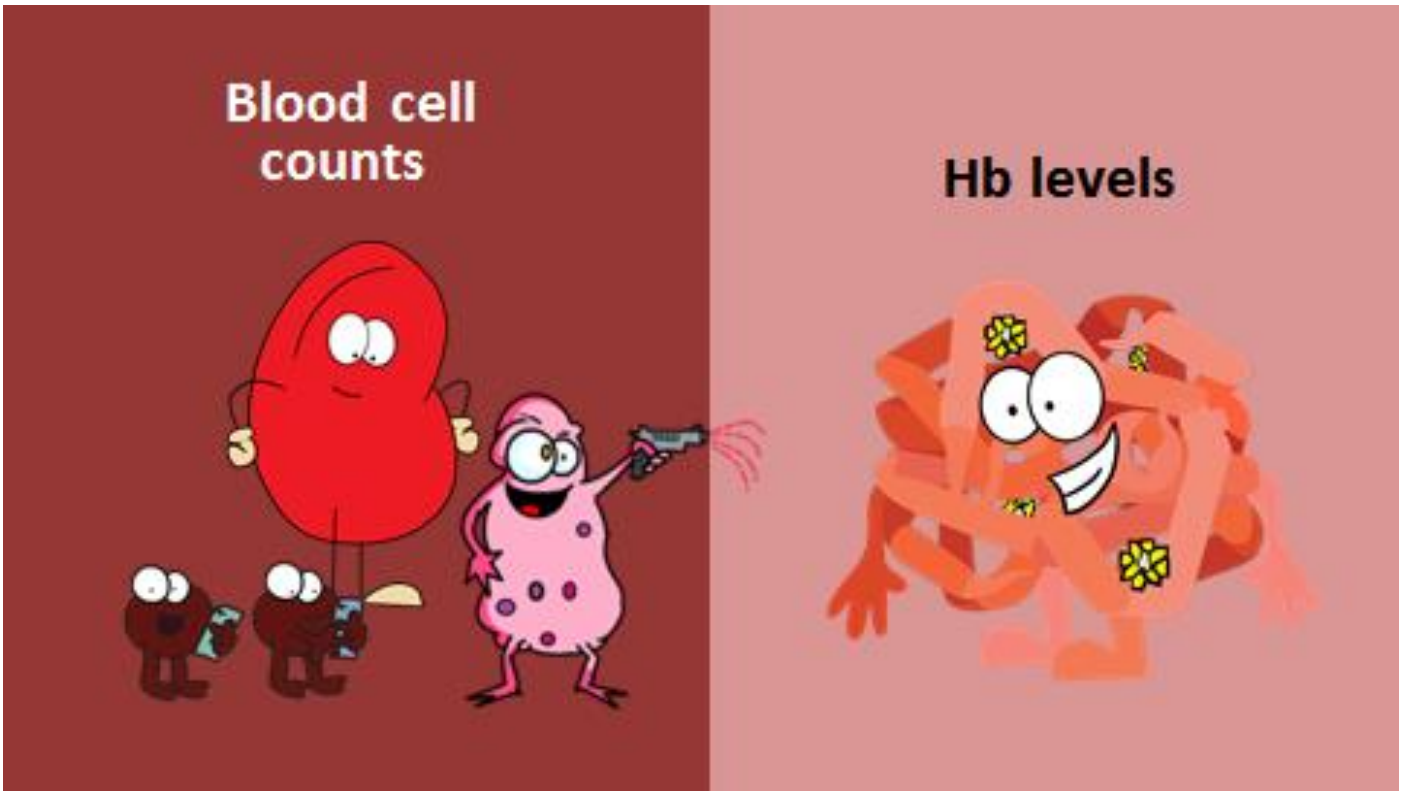
Which blood tests ?

Now, if you've already been to your doctor complaining of fatigue, there is a very good chance, you have been tested for iron issues.

Especially if you are a women, who is still menstruating.

There are quite a few tests that your doctor could use to assess your “iron” situation, but most of the time, your doctor will opt to use one or two routine tests. Only if these hint at a problem, will additional tests be ordered.

The routine tests



A complete blood count is almost always ordered, because it gives an overall picture of your health, since it quantifies all the different cell types found in your blood, including the red blood cells (RBC), platelets, as well as all the different varieties of “white” blood cells.

The number your doctor will be monitoring is the number of red blood cells.

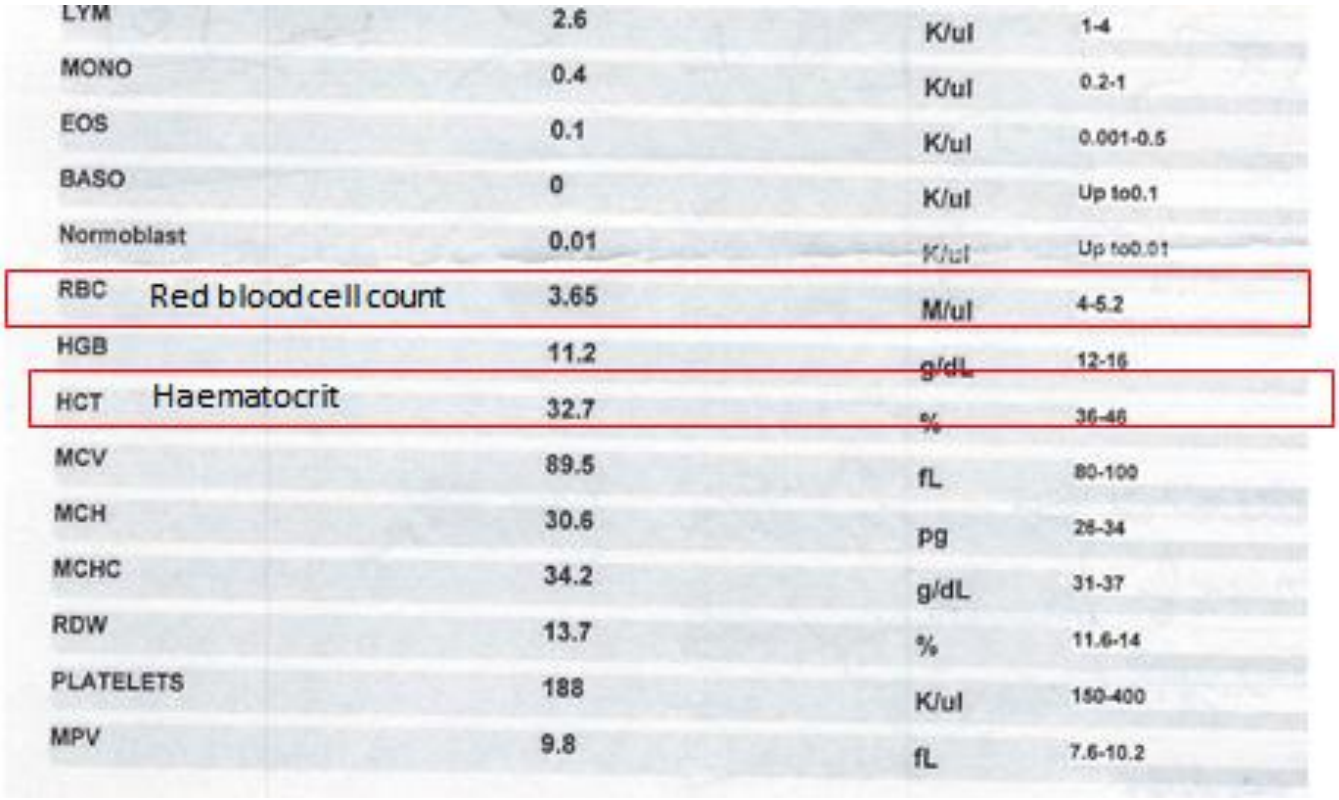
This will be reflected by a direct number (the RBC count) and a percentage. The percentage is known as the haematocrit (it is usually abbreviated as HT, but can also be abbreviated as HCT). If you look at your blood work, you should be able to locate these two parameters.

On the next page, I have given you a sample.

Your form, might look a little different, but you should be able to locate the RBC (red blood cell count) and the haematocrit (Ht).

The lab will show you what your values are and what the values should look like.

If your values are out of the range……. this will indicate that you have anaemia.



LYM		2.6	K/ul	1-4
MONO		0.4	K/ul	0.2-1
EOS		0.1	K/ul	0.001-0.5
BASO		0	K/ul	Up to0.1
Normoblast		0.01	K/ul	Up to0.01
RBC	Red blood cell count	3.65	M/ul	4-5.2
HGB		11.2	g/dL	12-16
HCT	Haematocrit	32.7	%	36-46
MCV		89.5	fL	80-100
MCH		30.6	pg	26-34
MCHC		34.2	g/dL	31-37
RDW		13.7	%	11.6-14
PLATELETS		188	K/ul	150-400
MPV		9.8	fL	7.6-10.2

In this example……

The RBC level is 3.65 M/ul.

And the haematocrit is 32.7 %.

Both of these values are below what is normal, so this lady would have been diagnosed with anaemia. Now, at this point in time, the doctor will not know why she is anaemic, just that she is.

Anaemia can be caused by several different factors, so the doctor will look at some of the other parameters in that complete blood count for clues. The haemoglobin levels, will be what is used to establish if the anaemia is being caused by an iron deficiency.

In our example, it is wedged between the red blood cell count and the haematocrit…… and it is below normal. *Haemoglobin is usually abbreviated as Hb, but can also be abbreviated as HGB.*

BASO	0	K/ul	Up to0.1
Normoblast	0.01	K/ul	Up to0.01
RBC	3.65	M/ul	4-5.2
HGB Haemogobin	11.2	g/dL	12-16
HCT	32.7	%	36-46
MCV	89.5	fL	80-100
MCH	30.6	pg	26-34

The doctor would know that this person has an iron deficiency anaemia and treat accordingly.

NOTE : If the blood work was from a man, the normal haemoglobin level would be a little higher. Below are the cut offs used to diagnose iron deficiency anaemia.

Normal

Female	Male
12 – 16 g/dL	13.5 – 17.5 g/dL

Mild anemia

Female	Male
10 – 12 g/dL	10 – 13.5 g/dL

Severe anemia

Hb < 8 g/dL

But you can be iron deficient and NOT HAVE anaemia.

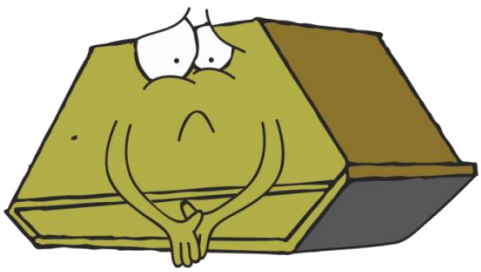
This would mean, all the numbers I just mentioned are NORMAL. They may be on the edge of normal, but they would be normal. To finally rule iron problems IN or OUT, one more test would be used. Your body iron stores would be looked at, the blood test that does this, is the ferritin test.

Here is an example from someone's blood work.

Ferritin	235	ug/L	(30-300)

The test is not 100 % accurate, because the iron is in STORAGE, tucked away inside cells i.e. it is not circulating. And the ferritin that is measured, is what is whizzing around in your blood i.e. the ferritin is outside of your cells. But as a rule, the amount circulating is in proportion to the amount inside cells, making ferritin a good proxy measurement for iron stores, *most of the time*.

The cut off number for ferritin, that indicates iron deficiency is < 30 ug/L.



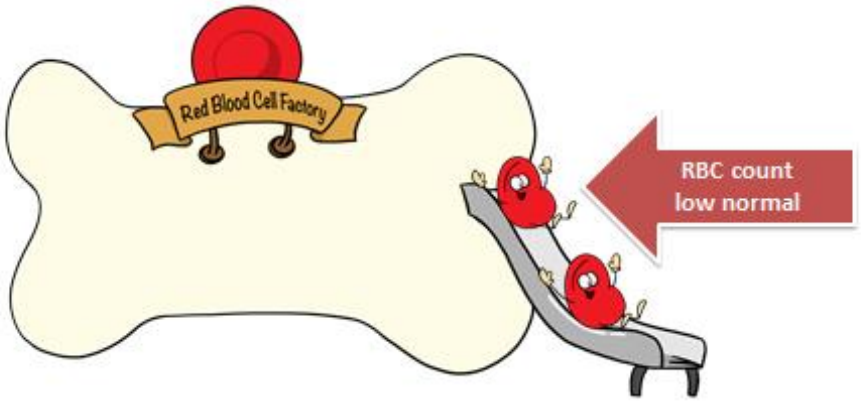
If the number is higher than 30, as is the case above, the doctor would conclude iron deficiency is NOT LIKELY i.e. you've got enough iron to do the job.

And they're RIGHT.

Most of the time ! The exception, is when the iron is "locked" away, thanks to biology*, something that is happening during a COVID infection and when you are insulin resistant.*

In this case, despite having more than enough iron in the body, the fact that the iron is not where it's needed, effectively leaves you with an iron deficiency.

There just isn't enough iron to FUNCTION normally.



Functional iron deficiency

So NORMAL ferritin level can be VERY MISLEADING.

And this is potentially what is happening.

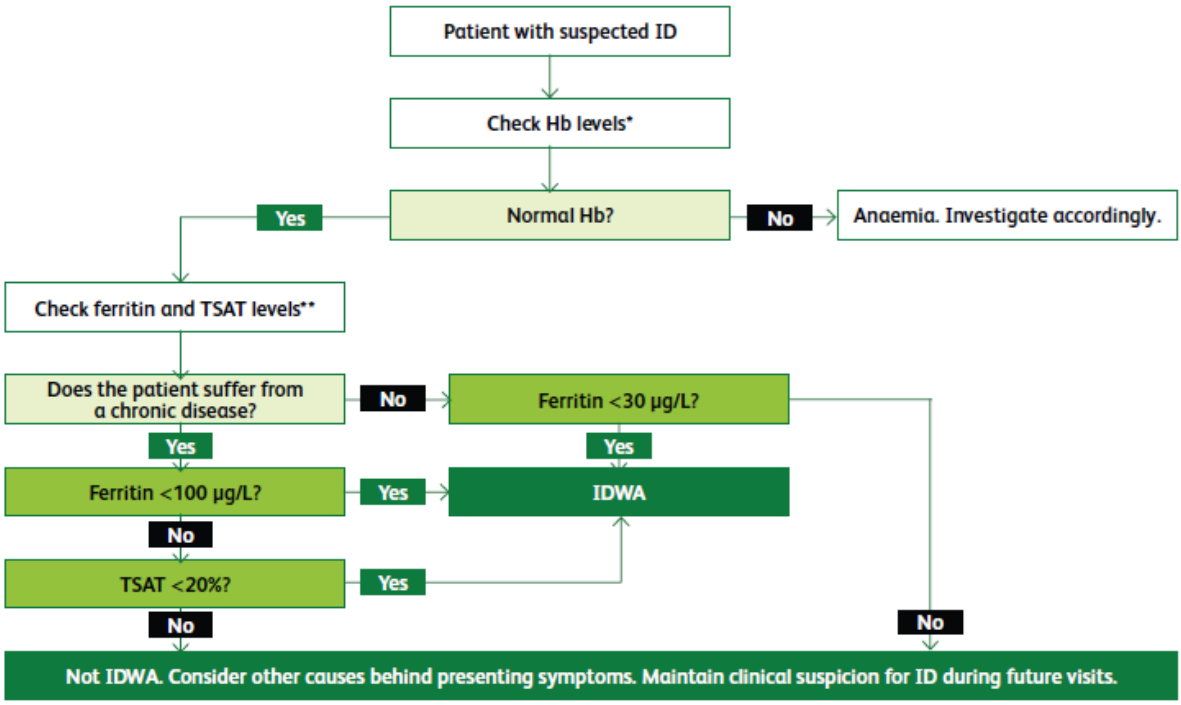
In this case, that “normal” ferritin level, could require your doctor to go back to the drawing board and rethink the initial conclusion, that iron deficiency is the cause of your lethargy. .

So how would your doctor “know” to do this ?

Well if you were old and very sick, your doctor would automatically do this.

Because, ferritin levels don’t only reflect your iron status, they also reflect your level of inflammation. In fact, ferritin is considered to be one of the proteins your liver produces in response to SERIOUS STRESS. It is known as an acute phase protein and is often elevated in people with lots of health troubles.

Here is the diagnostic tool doctors use to make decisions about iron deficiency without anaemia.

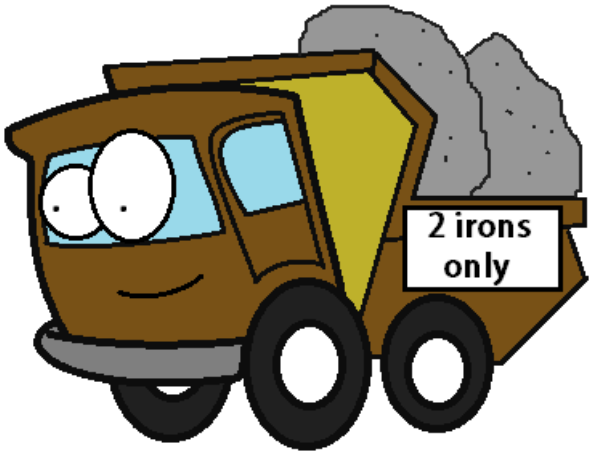


When a person has normal haemoglobin levels (Hb), along with signs & symptoms of iron shortages, they check ferritin and if the patient suffers from a chronic disease…… the ferritin number that raises a red flag, jumps up.

The problematic level is set at 100 ug/L, not 30 ug/L.

And they also look at another iron parameter, abbreviated as the TSAT level.

TSAT is the transferrin saturation level - it reflects how much iron is circulating.



NOTE : For the most part, iron doesn't move about your body on its own. It is deliberately moved from one place to the other, by a special protein called transferrin. How many iron molecules are found on the transferrin "truck" is a measure of how much iron is doing the rounds.

"Normal" values for transferrin saturation are around 25 %.

As soon as this number is low, the cut off is typically taken at 20 %, this suggests that iron molecules are not moving around, quite the way that they should. And there is effectively an iron shortage.

Iron deficiency without anaemia is diagnosed when ferritin is a little high and transferrin saturation is a little low.

THIS COULD BE YOU !

The POST COVID SCENARIO

The "iron men" will have been active during your relatively mild COVID infection. And that activity, could have created a situation of iron shortages.

Especially if you were a little low on iron, prior to the infection.

NOTE : They may also have been working when you received the vaccine, because the covidin is tucked inside the spike protein.

Since COVID is a so new…… there is a good chance your doctor, might not know about covidin. The blood work that he/she is looking at on a routine basis, needs to be interpreted in light of this information, if it isn't…..

Your iron problem could fly under the radar.

To get it out into the open…… you need to ask your doctor to order a set of blood tests, known as an iron panel.

Using the results of this, your doctor will be able to establish whether the reasons you have lost your mojo, after your COVID encounter are related to iron.

If it is…….

It's easy to fix.

The Insulin Resistance SCENARIO

The "iron men" you are contending with will be different. The intimate relationship between insulin and hepcidin, will be signalling your body to store iron 24/7.

Because you're producing insulin : morning, noon and night, you're producing hepcidin : morning, noon and night. Targeting "the iron pathways" through diet or supplementation will largely be a "pointless" exercise.

Most if not all of what goes in, will be squirrelled away for later.

You have to "GO AFTER" insulin.

EVERYDAY ! Day in and day out.

CANDY FLOSSing is a good place to start, but it will take time.

NOTE : If you need help NOW because the iron shortages that this "friendship" over the years has created, has left you running ON FUMES. An iron injection will help replete those iron stores.

It is a momentary fix. Not a long term fix.

Your doctor will be able to make the arrangements for you to get an "iron injection". You should only need one, to replenish the iron in the tissues, that are currently desperately short, because of the distribution problem.

You do need an "injection".

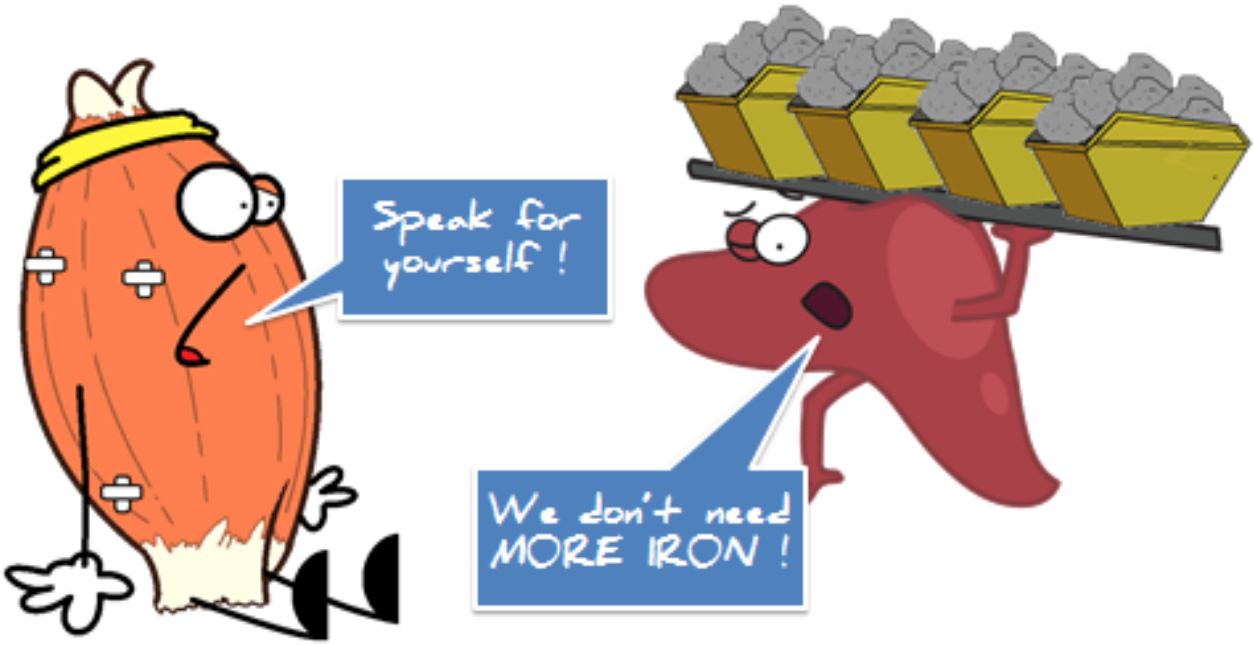
If you opt to fix the problem using an oral iron supplement or even, by simply eating iron rich foods, it will take ages to fix the problem.

And it is not without risk.

The MORE iron is still going in, it's just not going to "the right" place.

The reason it will take a long time to fix, is iron absorption is something that is tightly regulated. You should only absorb the amount of iron you need - no more, no less. Since as far as your liver is concerned, there is NO IRON shortage, your body will not be in a hurry to take in more.

Remember it is a FUNCTIONAL iron deficiency, not a REAL iron deficiency.



As soon as you fix it……. you'll feel like your old self !

What to do next

Ask your doctor to test your iron status. The numbers that will tell you if you have a problem…..

Ferritin levels

The ferritin level that will flag a problem, is a ferritin level below 100 ug/L. This is much higher than the 30 ug/L, your doctor will be watching for.

Transferrin saturation

The transferrin saturation level that will also flag a problem, is a number below 20 %.

I know many doctors will roll their eyes at you and think you have spent too many nights googling…… and be reluctant to take you seriously. But, most doctors will be obliging if you can provide them with solid science. They know they don't know everything and are happy to learn from their peers. So I have included links to two journal articles. I suggest you download them and then print them out and share them with your doctor, when initiating the conversation.

The first explains a little bit more about the COVID iron connection and the second explains more about iron deficiency without anaemia.

Iron dysregulation in COVID-19 and reciprocal evolution of SARS-CoV-2: Natura nihil frustra facit

Iron deficiency without anaemia: a diagnosis that matters

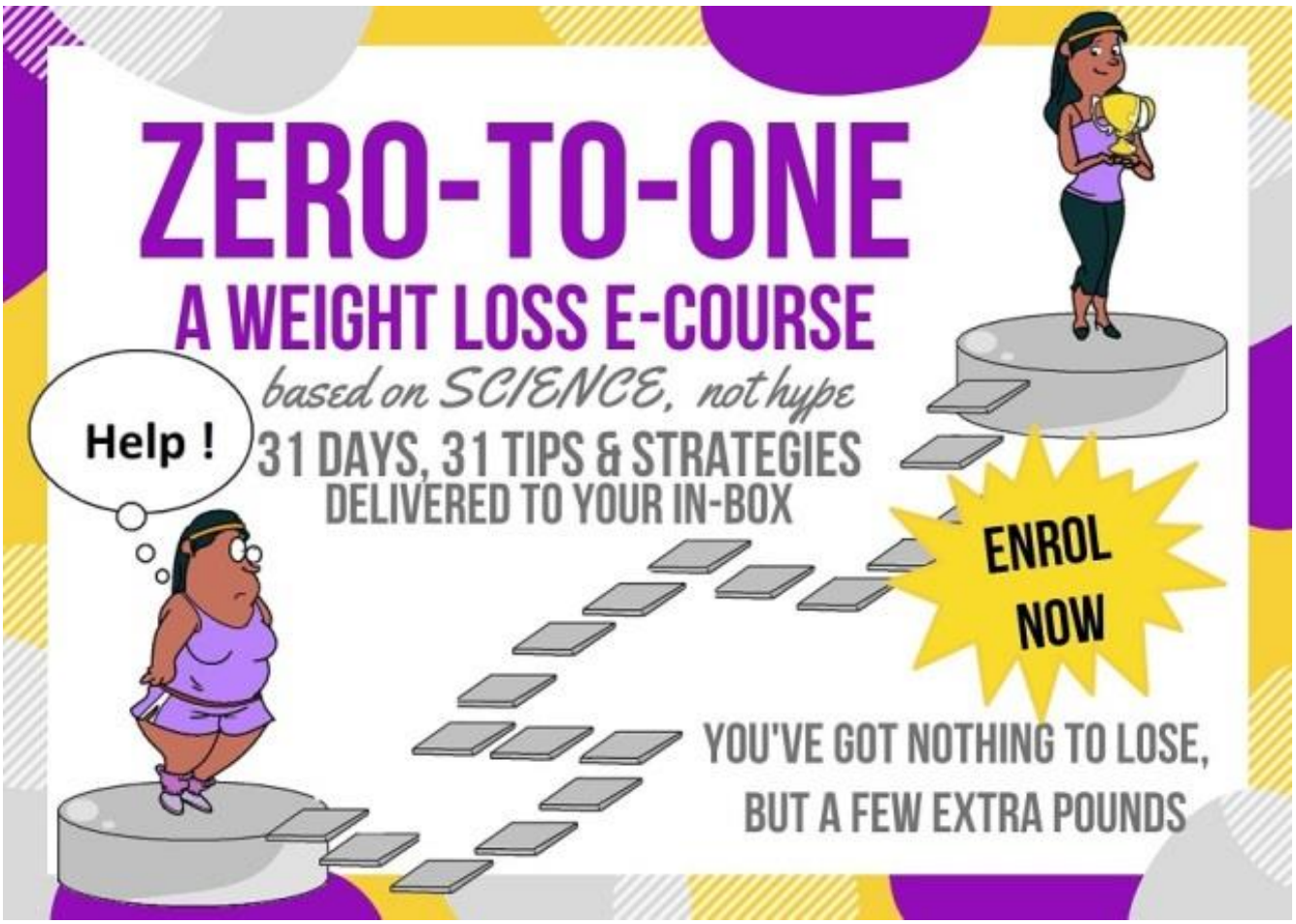
There are lots more, but these two should be enough to get the ball rolling, without overwhelming your doctor.

I also would also encourage you to join the BETTER BODY CHEMISTRY community. *It is not a facebook group, it is hosted on a platform called heartbeat.*

Here is the link.

In the community you will have access to me and other people, working to create BETTER BODY CHEMISTRY and BETTER HEALTH. You can ask questions, commiserate etc.

And if you're still battling to shake off the extra weight you acquired during the months of lock downs, I would like to invite you to enrol in my free weight loss e-course.



Here is the link to enrol.