Acupuncture & Natural Health Solutions

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Functional Medicine Summer Series #3

Greetings to those taking charge of their wellness story!

Welcome back to week three of our functional medicine summer series about the basic blood labs. The past two weeks we were talking about the white blood cells and infections you may be dealing with. This week, we are shifting gears and talking about the red blood cells and some other similar values.

By looking at the red blood cell count (RBC), the hemoglobin, the hematocrit, the MCV, MCH, MCHC and RDW, we can tell how well our body is methylating b vitamins and how much iron we have available in our system. Methylation has a genetic component, so if your numbers are high, you will likely need to take methylated B vitamins forever.

The red blood cells carry oxygen to the tissues throughout the body. They are extremely important to our overall health. The functional range of red blood cells for women is 3.9 - 4.5. For men, the functional range is 4.4 - 4.9. If your numbers are lower than the functional range, this indicates an iron deficiency. If your number is higher than the functional range, this points to a methylation issue. We need to be able to methylate in order to make more healthy red blood cells. If the red blood cells die off and you are not good at methylating, then you are not replacing the red blood cells at the same rate they are dying off.

Hemoglobin (HGB) is a protein within the red blood cell. It sends oxygen from the lungs to the body tissues. The functional range for women is 13.5 - 14.5. The functional range for men is 14-15 g/dL. If hemoglobin is low, and you have muscle pains and aches, then oxygen is not being sent from the lungs to the tissue because there is not enough conductivity, indicating a need for more iron.

If you go to the medical doctor with muscle pain and leg heaviness, they might say you are not anemic based on the labs. The problem is the normal range is too wide, so although you are “normal”, functionally, you are low in iron leading to the muscle pain and heaviness. Remember, we only can heal in the functional range. If you are between the functional range and the normal range, you are not healing, just limping along at a subpar level.

The hematocrit is the portion of the blood that is made up of red blood cells. It is the number of red blood cells. The functional range of hematocrit for women is 37% - 44%. The functional range for men

is 39% - 55%. If your hematocrit is below the functional range, this tells us the red blood cells are dying off and not being replaced.

The MCV is the average volume of red blood cells. How much space does a red blood cell take up? The functional range for women and men is 85 - 92. If your number is high, then the red blood cell is too big, and this indicates an issue with methylation. If your number is low, the red blood cell is too small and you are depleted and in need of iron supplementation.
The MCH is the average amount of hemoglobin present in each red blood cell. The functional range for women and men is 27.7 - 32. Again, a high value indicates a methylation issue. If your number is low, it usually indicates low iron due to malnutrition.

The MCHC looks at the distribution of the red blood cells. The functional range for women and men is 32 - 36 g/dL. If your number is high, you guessed it, there is a methylation issue. If the number is low, you need iron.

If your MCH and MCHC are low, that is pointing to a big need for iron. Basically, you are not getting enough nutrition. If you are eating enough, then you need to look at your white blood cell count and the CBC differential to see if you have an infection. If you do have an infection, then the critters are eating all your nutrition, leaving you with none. However, if these two numbers are off, you really need to take a hard look to see if you are eating enough nutritional foods, and likely you are not.

The final lab value we are going to look at today is the RDW. This stands for red cell distribution width. This test measures the variation in the size and volume of the red blood cells. The functional range of the RDW is 11.7% - 15%. If your value is low, this indicates a need for iron. If the number is high, you need help methylating. I think you may be seeing a pattern here.

Now, if only one of the values we just talked about is off, you might be fine. Usually, we see a pattern of several or all of these values running high or low. If they are low, then you need to look at the iron, TIBC and ferritin panel to see the true status of the iron stores. This will help us to figure out if you have an unwelcome infection or just need more quality nutrition.

In summary, if 2-3 of these values are low, then your body is telling you that you need more iron. Not all iron products are the same and some can be very constipating. If you find you need an iron supplement, I recommend EZ-Iron by Nutritional Frontiers. You take one per day and retest in 60 days.

If 2-3 of these values are high, then you need help in methylating. Taking a quality multi-vitamin containing methylated b vitamins along with a methylated B complex will help to bring these values into the functional range. I like Woman's Complete or Frontier Men's Complete by Nutritional Frontiers or Twice Daily Multi by Designs for Health for a multi-vitamin/mineral. I also like Super B Complete by Nutritional Frontiers or B Supreme by Designs for health. All of these products can be found on ***Fullscript*** under my name. If you sign up under me, you get a 15% discount off the MSRP and free shipping over $49. You can link through to ***Fullscript*** here.

I hope you are finding this summer series to be informative and that you are looking at your "normal" labs with new eyes. Next week is all about the platelets. Until then, be safe and stay cool.

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