What Are The Optimizing Labs?

Readers Summary

1. What labs might I consider with my healthcare provider?
2. How do I start?
3. Is the quantified self platform of testing a commitment?
4. How long should it take before I become rockstarish?
5. The secret sauce is not the lab data but in how they are interpreted!

When you finally decide to take total control of your life and optimize yourself, I always suggest testing. Many of you have bombarded my email and my twitter account for a blog to a list of those labs. Well, today’s post is for you. I was resistant to do this because I felt having the list of labs is a waste of time if you don’t have a physician who can decipher what they all mean for you. 7 years ago, I could not tell you what this group of labs meant at all to your optimal health. I learned it by reading and going to classes to optimize myself. After much reflection, I have decided to give you what you asked for. I am fortunate because many of the PCP’s I work with understand these tests well. I may also update it as I think it needs to be updated over time.

The first set of labs are what I call the core lab set for optimization. There are other panels I add to the core lab based upon the history, physical, and the food logs I will have patients give me. This blog is meant to be a resource for you to refer back to when the need arises. Discuss these with your doctor but don’t assume they will run out to order them because they may not know what all these tests will tell them. That part takes some time. I recommend starting the dialogue with your doctor to assess their willingness to help you. Most of my PCP doctors are awesome “helpers” to their patients with these issues. This requires a lot of work on the doctors part and the patients part. Do not be surprised if this is not covered by insurance. The time required to optimize someone is unreal. I know how long I spent optimizing myself 6 years ago. It was a tedious process but I was not going to give up because I believed my life depended upon it. For most people, 2-3 years you can expect the changes you want. If you are really in tough shape, it may take longer but that should not deter you. I love patients who bring big challenges. They are the most appreciative patients I have had in the last 5 years. We can never settle for a C or D when an A is possible.

Lab Panels

1. VO2 Max assessment (cardio pulmonary findings lead to a work up if needed.)
2. Initial visit DEXA with body comp. Optimization a DEXA scan to include body composition scores.
   F/U visits I use BIA assessments to monitor progress and limit radiation exposure.
3. Neuro cognitive battery of tests to assess processing speed, response
speed, memory, learning, and attention repeated annually.

4. Chemistry 20
5. Liver function testing
6. Serum Iron, TIBC, Serum Ferritin and Iron % Saturation
7. Lipid panel: VAP and/or NMR analysis
8. Homocysteine level
9. Complete CBC with differential and platelet count (sometimes an Ivy bleeding time)
10. Hormone panel includes (gender specific) serum and salivary cortisol, Total testosterone, Free testosterone, % Free T, DHT, LH, FSH, Estradiol (E2) high sensitivity, DHEA-S, PSA, IGF-1, Consider based upon history testing levels of progesterone, pregnenolone, melatonin, serum and urine Osmolarity, Prolactin levels
11. Complete thyroid panel with antibody screening (TPO etc)
12. Complete Urinalysis (women get beta HCG if they menstruate)
13. Highly Sensitive CRP (Not a regular CRP)
14. Complete Vitamin D panel
15. Omega 6/3 serum test (for severe findings consider tissue assay)
16. Fasting serum insulin and Hba1c assessment
17. No panel is complete without an ASI and salivary melatonin level. Read Brain Gut 11 to understand why.

The next set of labs are considered add ons if the patients’ history or physical require it being looked at.

**Cancer history of colon, breast, ovary**

1. CEA for colon cancer
2. CA 125 for ovarian cancer
3. CA 27.29 for breast cancer
4. AFP blood test
5. CA125, 15-3, 27.29, 19.9,
6. BRCA 1 and 2 screen

**Previous heart disease**

1. Apo A-1 and B
2. B Natriurietic Factor
3. LpA status, Lp-PLA2
4. CIMT
5. Calcium Index Score

**Bone pathology**

1. Osteocalcin frozen blood analysis
2. Se blood test
3. RBC blood testing for Mg
4. Deoxypyrindoline (DPD) Cross Link Urine Test
5. Parathyroid Hormone assay
Inflammatory/autoimmune panels

1. EBV panel
2. ANA panel
3. Complete Cytokine Assay
4. Candida Antibodies
5. Helicobacter IgG panel
6. Hep A, B and C titers
7. Breakout of Cytokine panel
8. ESR
9. RA factor
10. SLE screen
11. T Lymphocyte helper suppressor assay
12. IL 8, IL 1 B or TNF alpha analysis

I also think you need to have a thorough history and physical exam. You need to retest on a quarterly or biannual basis to get feedback on your lifestyle and regimen to get things right over time.

Once this is all correlated, you come up with a customized dietary plan, a medication/supplement plan, and exercise plan, basically a game plan for things you might consider altering for optimal health. It should be a collaboration between you and your doctor and your other health care providers.

This is a very labor intensive task for both patient and doctor. But if you remain persistent and consistent and your relationship with your physician congruent and always focusing in on your health you can reach any goal you have for yourself. It must be adaptable but yet have some core values to it to get you to the promised land. The secret sauce is not the lab list; it is found in the interpretation of those labs and how they correlate with your epigenetic switches. That is what determines how you partition calories and what diet and exercise program are best for your current biology. You should expect this to change over time as you become optimized. Nothing stays the same in biology. I learned this on my own journey and it has proven true in those I have helped re-engineer themselves back to optimal. Enjoy!

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