The 5 Most Important Labs for Brain, Heart, and Longevity Transcript

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Introduction to the Five Key Lab Tests

In today's video, I'm talking about the top five lab tests for your brain health, your heart health, and your longevity. These are labs that are run every single day by doctors, but most don't know how to interpret them.

And even more importantly, they don't actually how to fix them. If there's elevated levels of these lab results. Now, I'm not talking about your total LDL cholesterol.

I'm not talking about your fasting blood sugar. But these are really critical labs. Chances are you've had one or more of these labs before, but again, your doctor probably didn't know how to interpret it properly, or they didn't know how to actually give you good advice to fix it.

That's what I'm going to go through in this video. Make sure you stick around to the end, because that's what I'm going to go through. Exactly what to do to fix these lab results if they are off.

I'm also going to go through optimal ranges on all of these five lab tests. Now, these five lab tests are the tests I would get if if I could only rely on five tests.

These are the ones that I would get to look at how well my brain was functioning, my heart and my overall longevity. My chance of living long and healthy.

Number one is going to be fasting insulin levels. I think this is the most important test for overall metabolic health.

Fasting Insulin and Metabolic Health

So insulin is a superhero hormone that comes out to push sugar out of the bloodstream and put it into the cells, where can be used for energy. Insulin is really important.

However, when we keep spiking our blood sugar by eating processed foods, by eating high glycemic foods, we continue to elevate insulin. And over time, the cells start to become resistant to insulin.

So they no longer hear the knock on the door. They no longer open the door to allow glucose to flow from the bloodstream and into the cells. So we produce more and more insulin now when insulin is elevated.

Insulin is a growth based hormone, so it tells the body to grow. It tells cells to reproduce and it stops fat burning. You can't burn fat when insulin is elevated and you actually store more fat.

So you actually create more visceral fat, which is the dangerous fat that surrounds your organs and literally shuts off blood supply to your organs. Visceral fat also is what actually produces more inflammatory proteins, more interleukin six, tumor necrosis factor alpha, as well as C-reactive protein.

So when insulin is elevated we're going to store fat. We're going to create visceral fat. We're going to be stuck in sugar burning mode. And we're going to damage our mitochondria because we're producing lots and lots of oxidative stress.

So a healthy fasting insulin level, this is where you eat your dinner. Let's say that you finish your dinner at 7 p.m.. You fast for roughly 12 to 14 hours right in that range, and you get your blood work done the next morning.

So if you finish dinner by 7 p.m., you got your blood work done at 8 a.m.. It would be a, you know, a valid test in that 12 to 14 hour range. Your fasting insulin should be less than six, so it should be under six.

Now you should have some insulin. So if there's zero insulin that means your pancreas is not producing any. Which means you probably have an autoimmune condition type one diabetes.

That's not what we want. You're going to have some unless you have that condition. So roughly between 1 to 6. That is a healthy fasting insulin levels.

Make sure you ask your doctor to check most insurances will cover it. It's not an expensive test. If you're paying out of pocket, make sure you're looking at your fasting insulin.

Number two is going to be your hemoglobin A1. C you've probably heard of this HBA one c this is looking at roughly a 90 to 120 day life cycle of a red blood cell.

And how much glycation has occurred to the red blood cell. So what is glycation? It's when sugar binds to the red blood cells. So if we have excess blood sugar, higher blood sugar, the sugar molecules will start to bind to red blood cells and create sticky proteins glycated proteins glycated red blood cells.

These glycated red blood cells are not able to function well. They're not able to get oxygen to cells, are not able to get nutrients to cells. So they're dysfunctional, basically senescent or aged red blood cells.

Hemoglobin A1C and Blood Sugar Control

Now we don't want many of those obviously, because they're not functioning well. So we want ideally less than 5% of our red blood cells to be glycated.

So when you're looking at a hemoglobin A1, C you always want to make sure it's under 5.5%, 5.5%, ideally less than 5.2%. And what's really good is when it's less than 5%.

So roughly, let's say four and a half to 5%, roughly in that range. That's a sign of very good metabolic health, very good blood sugar regulation. Now, you always want to test that with fasting insulin, because you also want to make sure your insulin is not too high.

And that obviously if your insulin is high and your blood sugar is low, that you still have insulin resistance, if that's the case. So you want to make sure you're keeping your glycated red blood cells under control, but also keeping your insulin under control.

So again, hemoglobin A1 c important to look at. Because if your blood sugar is really high you're going to get dysfunctional senescent damaged red blood cells.

You're not going to get oxygen and nutrients to cells the way that you need to to really have great cellular health. So that's the second test. The third one is triglycerides to HDL.

So a ratio between triglycerides which are circulating fat along with your HDL which is your high density lipoprotein. They call that the good cholesterol.

And so normally that ratio you don't want a lot of triglycerides. Triglycerides should be low. You don't want a lot of circulating fat. If triglycerides are high, it's a sign that your body's not good at getting the fat into the cells to be used for energy.

So kind of like insulin resistance, right? We don't want high blood sugar. We also don't want high fat in our blood our bloodstream. So triglycerides ideally are under 100.

And your triglyceride to HDL ratio, the amount of triglycerides to the amount of HDL should be less than two and ideally as close to one as possible. So if your triglycerides are 80 and your HDL is 70, that's pretty close to one.

That's a good triglyceride to HDL ratio. If your triglycerides are, let's say 70 and your HDL is 65, that would be a

good triglyceride to HDL ratio.

Triglycerides, HDL, and Fat Burning

You want to get that ratio roughly about as close to one as possible. That is a sign that your body is good at burning fat for fuel. You're metabolically healthy.

You have good, typically, you know, the reason why somebody would have high drug, high triglycerides would be because they have high insulin levels. That's the number one driver for high triglycerides.

So if your triglycerides are low your HDL is in a good at a good amount. You're going to be metabolically healthy. So triglyceride HDL ratio always under two ideally as close to one as possible.

Now the fourth test that we're going to look at is something called homocysteine. Homocysteine. And that is actually an amino acid. It's part of the methionine metabolism cycle.

And homocysteine can turn into something called Sammy which is a precursor to serotonin, dopamine, all of our critical neurotransmitters. It can also turn into glutathione.

And it's used to be able to turn into glutathione, which is our body's master antioxidant, as well as Sammy, the precursor for all these key neurotransmitters.

However, when homocysteine is not metabolized properly, it becomes very reactive. So if homocysteine is elevated in our bloodstream, up above nine units in our bloodstream, it becomes a potent, inflammatory agent that damages our endothelial lining of our blood vessels, increases our risk of stroke, heart disease, Alzheimer's disease, dementia.

So all the different neurodegenerative conditions as well as stroke. So we really need to get that under control. What kind of nutrients are needed for proper homocysteine metabolism.

This is going to be your B vitamins in particular vitamin B2 which is riboflavin, also B6, pure doxing, as well as folate which is B9 and B12.

Homocysteine and Nutrient Metabolism

Those are all really key for proper homocysteine metabolism. We also need zinc and choline. So those are all the key compounds that we need in order to make sure that we're metabolizing homocysteine and turning it into glutathione on, as well as Sammy, if we're not getting those those nutrients, if we're either not consuming them or not absorbing them properly and utilizing them, we're going to have elevated homocysteine levels.

And if you're homocysteine is up over nine, it dramatically increases your risk of developing heart. Heart disease, cerebrovascular disease, or stroke, as well as dementia, Alzheimer's and different neurodegenerative conditions.

It also can cause problems like infertility or, you know, for for pregnant women, it can cause a higher risk of having, abnormalities. Right. Or, you know, even losing the birth, miscarriages and things like that.

So it's a really big issue that we've got to address. We've got to make sure we're getting those nutrients onboard right. Absorbing them properly, that we're producing enough stomach acid, for example, to absorb vitamin B12 effectively.

They say B12 actually is the biggest driver when it comes to homocysteine levels. So if you're not absorbing B12 because you are not producing enough stomach acid, maybe you're on a vegetarian or vegan diet.

That's going to increase your risk of having high homocysteine levels and having problems. So again, homocysteine should be under nine, ideally under seven.

Ideally, the ideal range is somewhere between 5 to 7 units. We're always going to have some homocysteine okay. It's rare that it's too low which could be the case okay.

Especially if not absorbing amino acids. Well, we're not absorbing or consuming enough methionine. We might have too little homocysteine, but that's rare.

Typically we're looking at high homocysteine as an issue. We want that level to be roughly between 5 and 7 units okay. So that's number four. And then the fifth one is C-reactive protein.

C-reactive protein is an inflammatory protein. It's produced when we have high amounts of visceral fat or infections or high toxicity in our body. So if we have high visceral fat, which is the kind of fat that surrounds our organs, like our liver, for example, fatty liver disease or surrounds our heart, our pancreas, that visceral fat will release inflammatory compounds, particularly interleukin six and tumor necrosis factor alpha, TNF alpha, those inflammatory compounds, those cytokines go to the liver and they tell the liver to produce C-reactive protein, C-reactive protein.

We can measure easily on a blood test. It's a very easy add on to any blood test you're getting.

C-Reactive Protein and Inflammation

Ask your doctor to order C-reactive protein if that is up over two, it dramatically increases your risk of developing some sort of chronic disease, in particular heart disease, cancer, diabetes, neurodegenerative conditions like Alzheimer's and, and, and Parkinson's as well as dementia.

And it also increases your risk of developing fatty liver disease as well. And so we want to make sure it's under two ideally under one. That's what we're looking at there.

So visceral fat is a big player. If we get our metabolic health right that's going to lower C-reactive protein. Another thing is infections particularly I found oral infections for example.

Having periodontal disease really increases your risk of C-reactive protein. Having root canals that were not done properly may be a factor for increased C-reactive protein in your bloodstream.

So that's a big factor. Now when you get your seat, when you get your blood test, one thing you want to make sure is that you didn't get a real big workout in the day before, because this is where you get a false positive for C-reactive protein.

Let's say you did some strenuous exercise the day before your C-reactive protein is going to be high, okay? And that's normal. That's part of the healing response, part of the healing process.

So it's always a good idea to just do light movement like maybe take some walks, you know, the day before your blood test, but don't do intense strength training or interval training.

That way you don't get a false positive for C-reactive protein. So give yourself a good day off from any sort of intense exercise the next morning. Of course, in a fasted state, 12 to 14 hours.

Get your C-reactive protein run. That's going to give you more accurate view of what your C-reactive protein looks like. And again, it can be high if you have high levels of visceral fat, if you have metabolic disease.

Also, if you have high levels of infections or high toxicity level, maybe you've got mercury fillings in your mouth, maybe you've got maybe you've been exposed to a lot of forever chemicals like BPA and plasticizers and plastics, microplastics, phthalates and, you know, makeup, things like that.

All of that can drive higher amounts of C-reactive protein. So if any of those levels are high, the first thing you can focus on is your diet, right? By just fixing your diet, by focusing on a blood sugar stabilizing diet that should improve

your fasting insulin levels, your hemoglobin A1, see your C-reactive protein, your homocysteine, and your triglyceride HDL ratio.

So focus on getting good quality protein, grass fed organic animal products as much as possible.

Diet, Lifestyle, and Fixing the Markers

Healthy fats from things like high polyphenol extra virgin olive oil, avocados, grass fed butter, pasture raised eggs, beef tallow which is a great cooking oil.

All really good for the body. Those are going to all help improve your metabolic health. And then lots of colorful fruits and vegetables, of course, adding in some intermittent fasting where you're going, let's say you're eating your meals in an eight hour eating window and fasting for 16 hours.

Maybe you eat from 10 a.m. to 6 p.m., or from 12 p.m. to 8 p.m., and you fast outside of that. That gives your body time to heal and repair your metabolism, to burn fat, for fuel, to bring insulin down so you can burn fat for fuel.

And that's going to help reduce your hemoglobin A1, c reduce your visceral fat and reduce your overall inflammatory proteins. Make sure you're getting enough B vitamins.

So how do you get B vitamins? Well, grass fed organic animal products are key. Take some apple cider vinegar and in, water, maybe one tablespoon and four ounces of water before you eat your meal.

That will stimulate good stomach acid production, which will help you absorb vitamin B12 from your red meat, for example. Okay, that's a great way to get B12.

Eat, you know, cruciferous veggies or arugula or something like that. You'll get a lot of folate. Organ meats can also be a great source of folate, B6 as well.

And vitamin B2. So grass fed organic animal products really prioritizing getting 30 to 50g of high quality protein in a meal is a great way to start to balance and stabilize your blood sugar, and that's going to help you burn fat for fuel and reduce these inflammatory lab markers.

Right. So that's the number one place to start. If you're getting your diet in order, you're exercising as well, getting some good movement and doing some strength training, building muscle, really prioritizing good sleep, keeping stress under control.

You should see these numbers go down. If not, it's a sign you want to work with some sort of functional health practitioner to really figure out what the root cause factors are.

Maybe you have sleep apnea. That can be a factor. Maybe you have oral infections like we talked about. Maybe you're being exposed to mold, or you have a high toxic load and you need help with overall detoxification.

If that's the case, work with some sort of good functional practitioner. But in general, I would say 80%, of the deal with getting results and moving these lab markers in a positive direction is going to come from your diet and lifestyle.

So really focus there to start. Hopefully you got a lot of value out of this. Please share this information as well with anybody that you know and that you care about. Be blessed.