Natural Approaches To High Cholesterol, Blood Sugar, And Blood Pressure Transcript

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Introduction and Dr. Lambu2019s Background

– Hello everybody welcome back to another episode. An interview from reverse your heart disease naturally summit. But really really pay attention because one of the most common series of questions he has been. How do I naturally approach my blood sugar, my blood cholesterol, my blood pressure. I don't want to be on drugs.

I want to be on less drugs. You always got to work with your doctor and that. So I brought in a dear friend and a world expert and let me introduce him. Dr. Joseph Lamb, M.

D. He's in his office on the west coast of the United States. He did undergrad at Medical college of Virginia in Richmond, went ahead to internal medicine at Presbyterian University of Pennsylvania Medical Center, one of the premier medical centers in this case in Philadelphia.

Dr. Lamb is very academic. Double board certified in internal medicine and holistic integrative medicine and is certified. In addition by something called the Institute for functional medicine. We've known each other for over a decade.

I've seen him luxury. I would call him my mentor as I sat through his lectures but he also has the experience of over 20 years of private practice. So he really deals with patients that have real problems just like you're listening.

Co owner, medical director of the personalized lifestyle medicine center by meta genic and gig Harbor, Washington. The state of Washington. He's been the investigator in over 75 clinical research studies and medical director for nature's sunshine products in Utah So he brings real that great academic and clinical and industry combination that puts it all together.

So Dr. Lamb Joe thanks so much for taking your time. – Well Dr. Kahn that was a very gracious introduction. So thank you. And it's an honor to be here today.

– You really are a big and we're really grateful for being able to have you share with us. So let's just ask a few questions and I know people will be taking notes and researching a lot of what you say.

But what's your approach? I mean people dropped dead of heart disease and had no clue. The family didn't know. The doctor didn't know the patient didn't know and they're just dead.

And that is actually the single most common presentation of coronary artery disease. We want to do better than that. So what's your approach when you see a patient at your clinic in gig Harbor to assessing their vascular risk, their vessel risk? – Absolutely. You know what you're talking about is you know that pre clinical phase before that event takes place because you didn't just wake up that Monday morning and have a heart attack. You got there along the way.

And I think one of the really relevant pieces and where we miss a lot is in the diagnosis of prediabetes and insulin resistance and the testing that we do the standard testing that we do for diabetes checking a fasting blood sugar really lets us down in that regard.

If you think about the natural progression. The first step is pancreatic dysfunction in the mitochondria in the pancreas are stressed, they over secrete insulin whether it's because they've been stressed by too many carbohydrates, too many fats or whether they've been stressed by by all the toxins in our environment, they are the responses and over secretion by the islet cells of insulin.

Assessing Cardiovascular Risk Early

And you get a hyperinsulinemia that takes place and that's the very earliest stages that you see. And that's followed then by blood sugars not being able to be controlled even despite the higher insulin levels because of the development of insulin resistance.

And then you get blood sugars that are elevated post meals which were also not typically assessing. And then finally fairly late in the progression of this. The first laboratory findings in terms of a fasting blood sugar show up and a lot has already been going on and it's kind of one of the tragedies of looking at someone who's you know, an average American now who's overweight or obese and saying to them well you have a fasting blood sugar, that's normal. So you're good.

Well they probably aren't they're working their way towards that trouble because if you calculate it their homa score which is just insulin times fasting blood sugar divided by 405, you'd have a marker to look at that prediabetes.

– So you are, sounds like even though we're early in the conversation, you're going to get a lot of lab work, somebody shows up at your clinic and says I don't feel well. And my brother just had bypass at age 54.

You're going to get a lot of tubes of blood I imagine. – We do. But but some of those are you know what we just talked about, you get one tube of blood to get your chemistries.

You can do an insulin in a hemoglobin a one C on that same tube. And for things like looking at blood pressure, you know the 2017 ACCH a guidelines for what hypertension is now.

You know, we've had a steady progression in terms of lowering the numbers that we consider acceptable for blood pressure. And we now you know we went from using terms like borderline to pre hypertension and now the category of elevated hypertension is having a systolic between I'm sorry elevated blood pressure is having a systolic between 120 to 129. And that's with having your diastolic less than 80. And we're calling that elevated blood pressure.

So relatively simple things can be done if we're paying attention to the changing standards and we're paying attention to the signs and you know, whereas we used to think that we over ate we became overweight or obese and we became diabetic. What we recognize now is disordered physiology leads to us being overweight. So overweight and being obese is actually the sign that those changes are already taking place.

And we're getting into trouble. – Alright. And you know, for the group listening that may not be familiar. I just want to remind you use the term islet cells.

Those are cells in the pancreas that produce insulin and help maintain a adequate and low blood sugar overall. And a homa, H. O. M. A. It's not a city in Louisiana, although there is one by that name but it is a blood test.

You can get through places like LabCorp and there's a version at quest but you have to be fasting. I've gotten pretty loose in my clinic if you're here and sometimes they travel quite a distance. I'm getting your blood work whether you ate or not. But obviously for fasting insulin and to calculate a homeless score, you're gonna have to arrange a patient to have fasting blood work no doubt about it. – And as a clinician it's really pretty simple to calculate the homa. You don't even need to ask the lab to do.

And it's just glucose times insulin divided by 405 and you get a number in the single digits hopefully and less than one is probably ideal. Greater than two is moving into the range of insulin resistance and between one and two is thinking about um you know, what can you be doing better?

How much do you rely on a blood test? A lot of people have heard about a bit in the summit hemoglobin. A one c as determining where you are in that journey from normal glucose metabolism to very perturbed.

– I get that as well. And but you know hemoglobin a one C is going to be affected when your blood sugar has

already started going up. So it's a good way of showing us that progression.

Like in the early stage of hyperinsulinemia a homa score will show it to you and the second stage where fasting blood sugar is still normal. But your post meal blood sugars are getting out of control hemoglobin a1c to show that influence and so you know, catching it at 5.7-6.5 is the prediabetic range.

– And you brought this up just a moment ago and I want to clarify something you know with three quarters of Americans and probably it's true in many other Western countries.

They're either overweight or obese. Is obesity the cause of diabetes hypertension, atherosclerosis? – Now I think of it more as one of the first signs of the disordered physiology that we see.

You know, there are all sorts of things that create oxidative stress in the Mitochondria.

Insulin Resistance, Blood Sugar, and Blood Pressure Testing

Barbara Corky who like back in 2000 and 11, she's a researcher at Boston University, she won the Banting award at the American diabetes association meeting. And I think it was it was 2011 and it was on her work of the lack of balance between our oxidative systems and our reductive symptom systems. And she pointed out for example that saccharin is a direct mitochondrial toxin in that regard and leads to hyperinsulanemia.

She pointed out that iron actually has a negative impact. And you know, at first when she said that, I was like yeah that's probably not a big deal for most people. But then she pointed out something that was very interesting in our move to low fat.

The average American's iron intake has probably gone up because if you were eating ground beef, right, that was you know, 40% fat, it was 60 Beef. And if you eat still a pound nowadays and it's 85-15, you're getting a lot more meat and protein and hence a lot more iron.

– There's a fairly recent research project in congestive heart failure. I think it was an animal model that brought out that iron toxicity may be underestimated.

And I've also been taught that with the increase in refined a flower that would be your bagel, your donut, your crackers, your white bread and all their often iron fortified refined flours and we may just be ingesting a mitochondrial toxin, imbalances are zinc and copper and our antioxidant pathway, interesting that you bring that up.

What do you mean? I remember you lecturing about evaluate function not disease and maybe you know share that with the audience, I think it's really important. – One of the earliest signs of endothelial dysfunction like helium being the lining of the blood vessel.

And um and the if the lining of the blood vessel is healthy, the blood vessel can dilate when appropriate like as flow increases the blood vessel dilates.

You get more blood flow. It's the way we we direct blood flow to where we need it at different times after a meal. We direct it to our guts so that we can digest things. If we've gone for a run we direct our blood flow so we get it going to our muscles um the end epithelium if it's exposed to things like too much insulin, if it's exposed to things like um um various toxins that come from the gut is a consequence of a leaky gut like lipopolysaccharides or also called antitoxin. You know if we're getting some of that in, you know we get that kind of post meal double whammy of you know sugar fat and and a toxin. We get lack of responsiveness to our end of helium. And as a consequence of getting that we get stiffer blood vessels and it's the earliest physiologic change in hypertension and atherosclerosis because you can get damage to those walls if they don't relax, which triggers the whole atherosclerotic process but you can actually measure and epithelial dysfunction by using various devices and a pat which is made by an Israeli company called Itamar is a wonderful device for looking at endothelial dysfunction and being able to measure it and quantify it and follow it over time.

You know it's basically measuring peripheral artery tone, hence endopath. But there are other devices that do that you know in the more of the research setting. People use flow mediated dilation and use ultrasound to look at the brachial artery for example.

And that's where some of the studies that show the roles for things is like dark chocolate, the flavonoids and dark chocolate making a role in terms of improving and epithelial function.

– A lot of people just got happy you mentioned dark chocolate because they've heard a lot about broccoli and brussels sprouts. Yeah I have an endo pat set up in my preventive clinic. We don't use it as much as I did five years ago.

But I think for a lot of people they probably have never heard something you just said. But that measurement called arterial stiffness can't do it with a stethoscope, can't do it with your eyeball. It's a measurement that requires some kind of machinery but it is clinically applicable. There are systems available.

We just mentioned one and everything's about earlier and earlier detection so we can intervene earlier with lifestyle. So I think that was a really important concept to bring up and anybody who wants to go to the web and read about arterial stiffness.

They'll find plenty. Now. I I just threw out an example about 10 minutes ago. But uh somebody comes to your clinic in gig harbor. You know my my mother had a stroke at 68 my father had bypass at 52 my brother just had a stent.

I must be a walking time bomb. I mean and they don't have any knowledge at that point of their cardiovascular health. But they're concerned and they should be in a clinic like yours. What what do you what's the process?

And are they doomed to genetic, you know, jeopardy there? – No. I mean you and I both know that there, you know, Genetics influence there an antecedent to what's going to take place for us.

But it's that interaction between the genetics and the environment that makes such a difference. You know, there's that gene mutation of 9P21 which is one of the genes that codes for cardiovascular risk.

And if you carry the risk a little meaning you carry the mutation that puts you at risk for having increased heart disease. The risk goes completely away on a high vegetable diet. So at the end of the day, genetics can help us determine some risk or risk potential.

But it's modifiable. It tells us where we do our work to make a difference. I mean the first thing that takes place if you come to my office is a really detailed history. Where have you been, what's happened to you along the way? You know, what have you been doing? Basic questions like were you a smoker at some point in time?

Endothelial Dysfunction and Arterial Stiffness

Basic questions like what's your diet like are you outside exercising but deeper questions like what's your profession been, what's your hobbies then? You know, you and I both know that you know toxic elements like arsenic, you know, particularly for diabetes but like cadmium and lead for heart disease play a role in, you know, if you never ask someone, if they have a hobby, you're never going to hear that, you know, oh they do stained glass work on the weekend and they're using a lead based solder for the last 30 years and you know, surprise, surprise or you know depending where your patient lives. You know I had a patient who worked over in Tacoma and we worked on her blood pressure and we addressed you know kind of body composition issues and we addressed diet and exercise and we still weren't getting her blood pressure anywhere that we really wanted it to and it was just a couple of years after I had moved here to gig harbor and I suddenly realized that she worked really close to a superfund site, the old rust in refinery that had been there which was originally a lead refinery and then a copper refinery and all the Texas city that was associated with that and at the time that it was a functioning refinery, they touted the fact that they had one of the Biggest chimney stacks around for this sort of facility. All that really did was increase how far the plume went. Got it up a little higher so it went on a bigger area. Making Pierce County one of the 10 in the top 10% of dirty counties in the country. From you know um an environmental point of view. So getting

a detailed history is the start identifying what they've been doing then doing things like getting accurate blood pressure numbers you know taking them at rest, taking them a couple times having people monitor blood pressure at home. So you really know where it is not discounting white coat hypertension because I don't think either of us are particularly scary.

And if someone's blood pressure is going up in the setting of seeing us then it may be going up when they're commuting and traffic or such like and if it's the surges in blood pressure that lead to the damaged vessel wall when the vessel won't contract and then it's doing things like doing an end a pad or an E. K. G. Or you know just asking someone you know about their exercise if someone's exercising regularly and getting their heart rate up to target heart rates they're kind of doing their home stress test each day on their own and you get information just from that capacity and then moving on to the labs and you know standard labs in my office, you know.

Yeah we start with the basic chemistry so we get a blood sugar, kidney function liver for function. But we go on to get the insulin. We get on to get the hemoglobin A one C. We get the advanced lipid panel.

So we're looking at particle size and particle number as opposed to limiting our discussion two concentrations of the various lipids and acknowledging that, you know, we talk about good and bad cholesterol but it's all the same cholesterol, right? It's all cholesterol.

What's good or bad is the function of the carrier? Pro HDL is good because it's reverse transport LDL bad not because it doesn't do the necessary function of delivering but because it's a lazy delivery guy at the end of the day who leaves its excess where it shouldn't you know, looking at numbers like that. Looking at homocysteine to get an idea about B vitamin metabolism and full of gas at looking at things like HS CRP to give us an idea about inflammation and cardiac risk.

Looking at a gamma glutamine transfer race as an add on liver function. Test to give us some suggestion about, you know, persistent organic pollutant burden. There was a paper by Lim and Jacobs a number of years back that showed increased risk for progressing to type two diabetes regardless of what your weight was if you were in the top half of the normal range for a G.

G. T. So it gives kind of an idea that hey we need to be working on things and then after that basic kind of point letting the history and letting the risk factors kind of drive us to what else do we do.

– All right. And I think I hope people listen to that once and people have an opportunity on a replay to listen again. That was an awesome list of advanced tests but they're widely available at and maybe the first time we've talked about a simple blood test. G. G. T.

Gamma glutamine trance race. Every lab every clinic can offer it. And there's just so much information that it distresses me because it's a routine in my clinic to when it's elevated and there's such an epidemic of fatty liver and toxicity and organic pollutants. So let's get to the fun part after we've learned so much about how you approach disease in your clinic which is let's just run through I'll name a disease.

Genetics, Environmental Exposures, and Clinical Workup

You name me 34 of your top nutraceuticals, botanicals, supplements, vitamins. We can substitute the words we want to use and you've got broad experience and you're advising a vitamin company.

So let's start with high blood pressure doc. I checking my blood pressure. Just the way you told me and I'm eating the dash diet and I'm going to yoga but my numbers still aren't optimal.

I really don't want prescription drugs and you know what's in your head. I mean you know what are you picking your top three or four choices? – D. H. A.

So number one probably because so many people are imbalanced when it comes to their omega three omega six. So and if someone is vegetarian we have algal sources of D. H. A. Which are a great choice for them. Number two

magnesium.

I think magnesium has to be my favorite mineral. – Mine too. Mine too. – It's I've seen you've had this experience seen towards SAAD which is a version of ventricular tachycardia go away with a simple infusion of magnesium.

It really is very gratifying so magnesium and it has a great effect on blood pressure and Co Q 10 has an impact upon blood pressure and you know all three things that I've mentioned so far have other impacts.

Right? You know they could be for supporting healthy function and other areas. Not just the hypertension area. And then finally a botanical. My first botanical would be hawthorn.

– Interesting hawthorn berry. – Right? – Well typically in the capsule sometimes in combination with other agents often also… – Has mild beta blocker properties and it has mild ace inhibitor properties from a and and I find it to be a really well tolerated choice.

Just what we haven't talked about but you know a lot of people have symptomatic premature ventricular contractions or a lot of you know premature atrial contractions we call them palpitations. You know we do you know is the patch or something like that an event recorder.

We're not so concerned anymore. After we see a nice normal report or close to normal report. But they still have a lot of irregular beats and they're concerned right Because you know it doesn't feel good to feel your heart foot flop.

Hawthorne is a great choice in that setting. – And of course there is the possibility there in your clinic and there 170 over 108 you might send her home with a couple or three of those in combination because they can be mixed and matched coca, magnesium omega three and hawthorne.

There's no reason a person who needs it can take all of them or two of them or three of them. Some sort of therapy yeah. – And there you know at the end of the day and maybe it's having started at this with an M. D. Degree and you know starting down the traditional medicine path to me. You know though we may be spiritual beings who have chosen to have a physical reality. We do have that physical reality and both medications and botanicals and minerals. They all work because there's a target somewhere in a physiologic pathway that they hit.

And if they're strong enough to work there potentially strong enough to have side effects too. So I don't really discriminate if I saw someone 180/108. They would probably get a prescription ace inhibitor as well as support with the others as they went out the door from the office. – All right Dr. Lamb.

We've had a couple of visits. I've lost some weight. I've used the prolonged fasting mimicking diet. Maybe I've eating the Mediterranean diet. I'm exercising more but you're telling me my home a insulin resistance.

My fasting blood sugar is my fashion sense. I'm just not where we need to be. And I don't want drugs. Don't you have some botanicals? Three or four nutraceuticals for me for my blood sugar. – First one would be burberry. It's an M.

P. K. Agonist has the same mechanism of action actually as met foreman. But the so it's an AED directly address insulin resistance. So it makes the cells listen better to the insulin you produce.

But the advantages it has a lot less G. I. Side effects than Metformin does. And the other pieces it doesn't seem to be associated with weight gain. So so I like berberine.

We did a lot of work at meta genic sex with a combination of hops and various other components. So it was the S. O. Off assets and hops are I. A. And T. H. I. A. And they were in some of our medical foods at one point in time in the R. I. A combination.

I'm sorry. Yeah the R. I. A combination is with Acacia which is extracted the gum Arabic tree and that's actually in a product called? And the other one that I like is the product called OST Era which you know um it's labeled for bone

health but it's the R. I. A.

And berberine and you know I use it frequently and it's kind of interesting because I have to always give the caveat, you know as I'm giving it to a man, you get the label and the labels let me tell you.

It's for postmenopausal women with osteoporosis. But these will work for you as well because you know, osteoporosis is an inflammatory disease made worse by this insulinemia.

– So berberine. Now some people's ears went up when you said hops we're not talking about taking a six pack of beer and getting your hops. In the traditional weekend football way. We're talking about, you know, targeted capsules, targeted powders. You mentioned the company, not everybody knows the name, meta genic six.

Natural Approaches for High Blood Pressure

Which has done the research in humans which you're affiliated with through the clinic. All wonderful company. So people can search out more about top support without uh suggesting that you're supposed to be drinking a good P. A. Okay in the final Dr. Lamb, I love what you're doing for me in the clinic. I feel better.

But this last cholesterol panel I'm still not happy with the LDL and the particles um You know I've tried to do it with diet and exercise. What can you give me a powder a capsule of liquid. I want to I want to stay away from prescription drugs for my cholesterol control. – The first distinction I make is what does the advanced lipid panel look like? You know I see a lot of people who have a slight elevation of their LDL and overall their LDL particle numbers increased but they don't have a lot of the small dense particles.

So in a case like that I feel a little bit more comfortable taking a conservative approach for a while and fish oil makes a big difference. You know it doesn't necessarily reduce the concentration of your LDL cholesterol.

So that number that we get on the report that says L. D. L. See may not change a lot with fish oil but the LDL particle size increases and the particle number decreases as the concentration stays the same and that's a favorable change.

So I would say fish oil is to start their next pieces. If the LDL particle numbers high. Well concentrations high. The LDL particle numbers high in the small dense LDL particles are also elevated.

Then you start thinking about botanicals like red east rice or bergamot orange and those sorts of pieces. And they've been shown to make significant differences. And one of the tests I'm sure you get this too.

But one of the ones I really like looking at is the oxidized LDL because it's when it comes right down to it it is that small dense particle that creates a lot of the risk but it's when it gets either likeated which means gets a sugar molecule added onto it.

Which at the moment we can't test in a clinical setting or oxidized when a fat goes rancid basically like from oxidative stress, which is why we take all the antioxidants that we talk about taking. But when it becomes oxidized, that particle is particularly pro inflammatory and it kicks off the whole system. And so when I start looking at the oxidized LDL, I start thinking about things that have been shown in clinical studies to reduce it. And we did a study just on a multivitamin.

Are phyto multi led to a 15% reduction in oxidized LDL levels in healthy individuals eating kind of the standard American diet and uh nature's sunshine. We did a antioxidant combination, nine botanicals added to Bergman orange.

Natural Approaches for Blood Sugar Control

And we showed, you know about a 20% reduction in LDL and about um in the mid teens reduction and oxidized LDL. And then finally if I'm getting a little bit more chasing a little bit more of that whole process.

And if I've seen endothelial dysfunction like on an end to pat. And we have numbers that we don't like and we have an Hs crp that's up and we're thinking inflammation. I really started thinking about the the hops compounds. Again, we had a paper in atherosclerosis.

A number of years back demonstrating that th I A. A blocked the adhesion of monocytes to vascular and epithelial cells. So the monocyte adhering to the vessel wall migrating through the vessel really and becoming a macrophage.

Macrophage being, it's trying to clean up the inflammation that's there but gets locked into a cycle of kind of progressive inflammation and um the tetra hydro assets. We showed in the study that we had in atherosclerosis and we had a small study using Tetra hydro itself assets and niacin that we had in global advances in health and medicine that improved epithelial function in people with hypertension.

– I don't think most people logged on expecting here. The medicinal and health value of hops as much as you brought it up. But of course for the many decades of meta genic has been a leader in natural products.

Hops have been in many of the substances. So there's a lot of clinical successes. I thought that was fascinating. And right at the end, just last question, you did say the word niacin is niacin in your armamentarium for cholesterol disorders as a you know, over the counter version. – It is, you know, it's actually interesting because our marketing group, you know, I hate to say this but they were slightly influenced by it. You know, we never had a T. H.

I. A niacin product because at the time that the R. And D. Team pitched it. It was right after the aim high study and the aim high study when you, it was thought by many to be kind of a death knoll for the concept of using niacin to improve HDL and improve cardiovascular health in that regard.

But the aim high study should probably have been missing and miss instead of aiming high, you know they were trying to isolate the impact on HDL. So they had a group of people who were on statin drugs and they added niacin to it and niacin does have independent effects on LDL cholesterol.

Natural Approaches for Cholesterol and Lipids

So if their LDL went down they actually decreased the LDL. I mean the statin dose that they were on to maintain the LDL at approximately the same level. And you know that's implying to a certain extent that the only impact of a statin is on LDL and neglecting the impact on as an anti inflammatory. So they didn't see evidence that raising HDL was going to reduce the risk for development of atherosclerosis partly because the study design. And then they stopped the study early because they thought that there was the safety committee was seeing an increased number of strokes in the group who had been assigned to taking niacin.

And one of the things that you need to realize about these big studies is when safety committees look at these pieces. People are enrolled in the study.

Their continued to follow in the study, even if they discontinued what they were taking. So when they looked at this data later on though people were in what's called the intent treat group for niacin. The people, the great majority of people who have had strokes, these hemorrhagic strokes hadn't been on niacin within the last 3 to 6 months in a season was probably not associated with their increased risk for stroke and it probably was random occurrence but they stopped the study early because they hadn't looked at that data. So niacin remains a good choice uh particularly if you've measured um LP Little A. Which is another kind of advanced lipid marker and it's looking at sort of a variant of LDL cholesterol. I like to think about LP Little A.

If LDL is the lazy cement truck driver who leaves you a president of cement your drainage ditch because he doesn't want to take it back at the end of the day.

Lp Whittle A is the angry cement truck driver who leaves the cement right in the middle of your driveway or worse yet right in your convertible. So it becomes important to treat that and lP little ace refractory and niacin is a great choice in that regard. – I think people have learned a ton and can take comfort that as you said and I agree

prescription medication pharmaceuticals are needed and can be beneficial. But in many circumstances there may be the opportunity to combine and there may be the opportunity to slowly back off and maybe avoid altogether always working with somebody experience like you.

So I want to thank you. Tell us there are people listeners that are on the West coast and might want to travel and visit you in your clinic. How do they find you or your clinic? And how do they connect?

– Easiest telephone number is 253-853-7233. If you want to know more about me and about the clinic, the website, josephlambmd.com tells you about what we've got going on. – That's easy enough josephlambMD.com.

Well thank you doc for taking time out. It's great to reconnect. Maybe I'll see you soon at a medical meeting as the world has reopened and God bless for that.

Thank you. – Thank you. Honored to be here today.