Boosting Insulin Sensitivity To Improve MS & Autoimmunity Transcript

(Transcripts are generated by AI and may contain errors)

Introduction and guest background

Welcome to another episode of the MS and Autoimmune, Summit. I'm doctor Terry Wahls, your host, and our next guest is Doctor Ritamarie Loscalzo, the founder of the Institute for Nutritional Endocrinology.

A is partially committed to transforming our current broken disease care system into a true health care system where each and every practitioner skilled at finding the root cause of health challenges.

Doctor RitaMarie specializes using the wisdom of nature to restore balance to hormones, with a special emphasis on thyroid, adrenal, and insulin resistance.

You know, that's really important because we have an epidemic of unrecognized insulin resistance that, accelerates the disease course for those people who have multiple sclerosis and a systemic autoimmune disease.

So welcome. RitaMarie. We're so glad to have you. doctor. Ri Ritamarie Loscalzo. Kind of do practicing. See you in your last lecture. Saying my name. It's a hard one.

I say it, correctly. So let's talk about why blood sugar is such a problem for so many people. And why blood sugar is so important for people with multiple sclerosis and other systemic autoimmune issues.

Yes. So why is it a problem for so many people that would go back to the standard American lifestyle, the standard Western lifestyle. People are eating too much processed foods, too much ultra processed foods, too much refined sugar, and even the ones that aren't eating too much of that are also exposed to toxins in the air, in the water, in the food, etc..

And those things are damaging their body, and they're basically damaging the cell receptors for insulin. So they develop insulin resistance really early on.

What insulin resistance is and why it matters

And there's so much more. Let's explain insulin resistance to to our listeners. Yes. So insulin resistance is let's just step a step back to what insulin is.

Insulin is a hormone. Most people don't even realize that insulin is a hormone. It's a hormone secreted by the pancreas. And it's job in life is to help glucose get across the cell walls and into the cells, so that the mitochondria can turn it into energy.

That's basically what it does. And when we have an influx of sugar through the digestive tract and almost everything gets broken down into sugar, even if you're not eating table sugar, it gets put into the bloodstream as glucose.

Then that glucose triggers a response. Actually, it triggers it when it's still in the gut to say, hey, glucose is coming, get ready. Insulin gets secreted.

Now, once we get to a point where we're eating too much sugar, sugar all the time, the processed foods, the starches, the breads, the pastas, the cakes, etc.

then we're getting an influx of sugar constantly, and especially in people who eat like they've been taught to eat, which is grace. Eat every couple of hours. Right.

And so there's this constant influx and insulin keeps getting called to the ready, called to the ready. And after a

while the cells get inundated. The cell receptors don't work so well anymore and insulin can't get the sugar into the cells.

So then we end up with a situation where we have high insulin and high glucose, which causes a problem. And that answers part of your second part of the question, which is why is it so important in autoimmune?

We know that in autoimmune conditions there's a lot of inflammation in the body. And when we have this constant influx and attempt for insulin to get into the cells, we do create inflammation.

Yeah. And the research tells us that if people have insulin resistance or metabolic syndrome, prediabetes or diabetes, they are, have a shorter time to job loss.

So you lose employment more quickly. You need a cane walker or wheelchair sooner. You're more likely to need early assisted living in nursing home care.

So all of this accelerates the rapidity of your decline. And unfortunately, many neurologists are not checking your glucose, your hemoglobin A1, C and they're not looking to see, are you developing this insulin resistance, this prediabetes or metabolic syndrome.

Absolutely. And you know, you missed one one lab there that they're not checking. That's the earliest indicator that we're heading in that direction. And that's insulin.

So most doctors don't even look at insulin in the blood until you are diagnosed with diabetes. And then even then with type one is they check it to make sure they're giving them the right amount of insulin.

But most of them aren't even checking insulin. And it's actually can to give you a, hey, we're heading in that direction 20 or 30 years before the problem develops.

Okay. So if we're going to check insulin, let's to help our listeners understand what the insulin value should look like. And you probably pair it with glucose.

Yeah. Everybody goes though right. But yeah. So our listeners if we if we pair an insulin value and a glucose value, what should they look like. So glucose ideally fasting glucose is what is typically measured.

Ideally fasting glucose is somewhere between 80 and 90, 80 to 88 82 to 88. We can get as narrow as we want.

Insulin, glucose, and lab markers to watch

And then the fasting insulin should be between 2 and 5. Unfortunately, the standard blood ranges at a lab test are much higher, much broader than that.

So they're not catching the nuances of, hey, we're heading out of this optimal range and we're heading in that direction. Yeah. You know, the, I believe the American Diabetes Association says, if the insulin can go up to 20, fasting up to 25, and when it's over 25, then we're thinking, okay, you're diabetic.

And. We don't want to wait for you to be diabetic. Oh, no. And, you know, it's interesting. I was just looking in the study recently that the glucose, the fasting glucose just very gradually builds up.

It's one of the last things to actually be a sign that you have diabetes or prediabetes. It goes up slowly, but the insulin values are going up at a much steeper curve.

So if we start to measure the insulin and, you know, say you take a 20 year old who has perfectly normal glucose and assuming perfectly normal glucose, perfectly normal insulin, and you follow them over time, you're going to see the glucose looks good.

So if all the doctors are checking is the fasting glucose, they're not going to catch it until it's too late. But as you start to see that insulin kind and insulin has its own really negative repercussions when it gets too high, then we start to see, oh, this person's heading down the path to metabolic syndrome.

This person is going to be in trouble in the next five, ten years. So when the insulin becomes high, what are the negative consequences of the high insulin.

Oh there's lots. So high insulin. Insulin is a anabolic hormone. So it causes the storage of body fat. It turns off the breakdown of fat and it turns on the storage of fat.

So people who are going, I'm just not eating all that much and I'm gaining all this weight. What the heck is going on? That's because they're eating in a way that causes high levels of insulin, and they're going into fat storage versus fat breakdown.

It also elevates the blood pressure and it interferes with magnesium, and it increases our need for being on interferes with magnesium. In what way? In what way?

It causes an increased need for magnesium, because magnesium is one of the co-factors that help get the sugar into the cell. So it helps with the insulin to be able to transport glucose into the cell.

So we're using it up at a much more accelerated rate. It also increases the excretion of magnesium and the retention of sodium. And that combination, amongst other mechanisms, will cause the body to go into a hypertension mode, high blood pressure.

And that's a huge problem these days. And that's part of the metabolic syndrome, right. High blood pressure, high lipids, high glucose. Yeah. Yeah. And it's also going to create problems with vitamin D because you need magnesium to have your vitamin D function ugly.

Exactly. Yeah. It causes increased appetite. It causes people to be hungry after a big meal is eaten. So then they eat too much, causes sugar cravings because the body's saying, I got all this insulin, but not enough sugar in my cells, and we're craving to replenish that craving to have the fuel to be able to make our ATP, which is the energy currency of the cells.

So what are for listeners with multiple sclerosis? What are. And this could also apply to other systemic autoimmune problems that have a neurologic or psychiatric symptoms.

Are there any symptoms that would make them to make them wonder is insulin a problem for me?

Effects of high insulin on the body

Yeah, there's a number of them. And one would be that appetite. Like I'm still hungry after I eat a meal, I just never get satiated. Tiredness, right?

Exhaustion. People think it's just like normal to get tired at four in the afternoon. Difficulty focusing. That would be a neurologic type thing, right?

Difficulty focusing brain fog. We sometimes call it memory problems with memory, and we find that high levels of insulin and insulin resistance when it develops in the brain affects the hippocampus, and that's responsible for taking short term memory into long term memory.

So you start to forget things. And we think it's a senior moment just because we're whatever over 50 over 60. But in reality it could be early signs. And the other thing and this is more related to like Parkinson's and Alzheimer's as early symptoms, but I believe that it's something that's a trigger that we should be thinking about.

Is constipation right. Constipation, even when eating a good high fiber diet, because the neurology of how it affects

the brain can affect, you know, because it can create the disadvantage or the inability to really control the the neurology in the gut.

And it microbiome gets changed. So insulin resistance, you talked about fatigue focus brain fog. These are very, very common symptoms for people with M. S.

in the longer that they have the Ms.. It is probably also very common with people with a systemic autoimmune disease that they're going to have issues with fatigue, they may have anxiety, difficulties, focused memory.

Are you trying to say that everybody's probably has an insulin issue. Or we should consider that? I would say, and the studies show 93% of the population has a problem, a metabolic problem.

So yeah, I would say almost everybody has it. And with it's an early sign and a lot of people have it in, they're just told, oh, you know, just drink more caffeine, get more sleep, whatever.

And it's really just that's doing them a disservice for not digging deeper into seeing. And a simple blood test, a simple 15, $20 blood test called insulin can give you that information.

A simple test like what's called postprandial glucose, not just what it is in the morning, but how do you respond to your to your life, to your foods, to your stressors?

Two days you don't sleep versus days you do sleep. And then we get to look at how can we control the glucose level? I keep it relatively steady so we can control those insulin levels.

So our listeners you likely have issues with insulin. Ideally go get an insulin level or at least a onesie so that we can begin to unravel that. I do tell my listeners, many of you will at least have a fasting lipid.

You could go back to electronic medical records if you've got a fasting blood lipid, and then look at your triglyceride level, your HDL cholesterol level, that's a ratio, you know, if that ratio is four or higher, that is really consistent with insulin resistance.

If and the ideal number that I would like to see my patients at certainly less than three. And so you can get it down to two. That's even much better.

Symptoms that may signal insulin resistance

Yeah. And I try to get them down to 1 or 1 and a half, because that's where the studies show that you're in the safe zone. So even if you if you even if you can't get a fasting insulin, you know, I predict all of you have a fasting lipid.

So you could go look at that ratio. And is it 4321.51. You know, that will tell you a lot. So people have they're going to go check their ratios and they'll go like well shoot.

Mine is not where I want it to be. So what's the next step? Next step is an overhaul. And very similar to what you teach with people getting their bodies balanced for dealing with an autoimmune condition or multiple sclerosis.

And they need to have good nutrition. So they need to have a plentiful diet, plentiful in nutrients, which would be a lot of veggies, low glycemic, getting rid of the sugars in the processed foods, and the high fructose corn sirup and all the obvious things, but also getting the grains out.

Maybe whole grains as a you know, I don't know, some people deal with quinoa just fine, but they just don't deal with the other, you know, the processed grains, which is usually in the crackers and the cookies and the breads and all that and pastas.

So replacing those and there are good, easy replacements for all of those things that are more low glycemic, higher in protein and higher in nutrients.

Why don't we explain the term low glycemic, high glycemic. So some might not know. Yeah. So when I say low glycemic high glycemic, it has to do with the carbohydrate content of a meal of a food.

So for example if you eat broccoli it doesn't have the potential to raise your blood sugar very much because it's a low carb, high water content, good source of protein, good source of minerals, no fat.

And it's not going to raise your blood sugar. So it's the blood sugar raising potential of a food. If you eat a piece of candy, you're going to get pretty rapid increase in that.

And then there's foods all the way in between. So a banana and an apple may do a different job on it. Oh, an apple a green apple might be considered a lower glycemic food.

Not completely low but lower. But a red apple might be considered high, whereas bananas and papayas and mangoes might be considered high. And they have the potential to raise your glucose very high, which means it's going to cause a surge of insulin in the system.

So picking the non-starchy vegetables lotuses, kale, cabbage, peppers these would all be cauliflower, broccoli. These will not raise your blood sugars.

But then if we get to the starchy vegetables, potatoes, yams, there's more starch there. And that those have the potential to raise your blood sugar much higher.

Yes, yes. And everybody's a little different, which is why I recommend either a CGM, a continuous glucose meter, or just getting a little prick. Prick your finger and test your blood sugar and see how these things go.

So everybody's a little bit different. And it's based on your genetics. It's based on your stress levels, your sleep levels. It's based on a whole bunch of factors. There.

Oh could we talk about the microbiome impact on blood sugars. Yeah. So huge. So you know imbalanced microbiome can throw off the blood sugars. Imbalanced microbiome can lead to certain cravings that will then cause you to eat certain foods that are going to affect your blood sugar.

There's just this feedback loop from the microbiome in, you know, in the bloodstream. They secrete certain kinds of chemicals.

Diet changes and glycemic load basics

And we see a big difference if somebody's balanced versus if they have a whole big yeast overgrowth or an overgrowth of of organisms that are munching and looking for for sugar.

So that has a big difference. And what about the Aquaman's here? You said Ofelia. Yeah, it's got a lot of press these days. And Aquaman, she has a very important bug that tends to be lower in people who have less of a high veggie type diet.

People need it to keep the blood sugar balanced, to keep the microbiome balance. And it also is involved in everybody's been hearing about like a GLP one.

You know, all about craze, right. And and Sia can help the body to produce more of the GLP one which then helps to control insulin levels, glucose levels and appetite.

So super important now it's Aquaman. See is one of those things that it's not just like more is better because you can get to a point where if the Aquaman is too much.

So if you're supplementing it, you do have to watch, because if it gets too much, those dark romance here will eat up the the mucus lining of the gut and can create a barrier problem which could lead to something like a leaky gut

or intestinal permeability.

And intestinal permeability is one of those things that contributes very greatly to autoimmune diseases, because you don't have that barrier protecting the inside worlds from the outside world.

And a lot of the stuff that should be filtered away and pooped out ends up in the bloodstream and causes an immune response. Okay. So we've we've talked a lot.

It's important to measure get a sense of where you're at. Everybody. When you're done, go look at your lipids. Check your ratio like okay I got to do something.

If your ratio is too high, lower the carbohydrate content. So get rid of sugar. Get rid of the whites. Flour based breads pastas, cereals more non-starchy vegetables.

Berries would be good. You can sort of think about how many how much fruit you can have. That depends on where where your ratio is your microbiome. You could check your microbiome.

What do we do about the microbiome? There's a lot you can do with the microbiome right. So one is fermented foods. That's the obvious one. We eat fermented foods or take probiotics.

I personally believe that making your own fermented foods or buying fresh made fermented foods is going to be a lot better than buying a strain of probiotics.

It's minimal salinity, whereas the foods are widespread and diversity of the microbiome is super important. I was just interviewing somebody recently, and she was talking about some of the things that we all think about for improving the microbiome, which is getting out in nature more going barefoot outside, hugging trees, things like that, to increase our exposure to the good microbes in the environment.

So there's a lot of things you can do to improve your microbiome to your foods. Like that's a huge one to your foods, 3 or 4. So more so many people are just bolting down their food.

And when you bolt down your food, you're not chewing it fully. You're not extracting all the nutrients that you need in it. You get undigested food particles going down and aggravating the gut lining, which then can predispose you to intestinal permeability issues and increased.

But the bugs that you don't like. So chewing your food, basic eating in a parasympathetic state, meaning a calm and restful state, right? Calming yourself before each meal.

Huge difference in how your body digests food and how your microbiome flourishes. So, do you have any favorite tips on how to calm yourself before your meals?

You know, it goes back to when I was a kid. We always laughed at the family. We'd have a to grace before meals, right?

Microbiome, fermented foods, and gut health

We had to also calm down, you know, give thanks to our food and you can do something like that. Whatever religious background you have, it's not a religious thing.

It's more of a physiologic thing that helps support your health. So you basically stop before you eat, you know, just take your tray and sit in front of the TV and gobble down your food.

You sit and you appreciate you appreciate the source of the food. You appreciate that you have beautiful food on your plate. You give some thanks. You chew a few deep breaths, and then you calmly eat and chew each bite slowly and carefully.

And it's great. It's an easy way. It's free, not necessarily easy, right? Because people are not used to that. But it's a free way to help improve your microbiome.

Excellent, excellent. And if you are getting fermented foods in addition to the probiotic bacteria, the we get the viruses that were infecting the bacteria.

Those are called bacteriophages. You also get the probiotic yeast that were part of that fermented foods. And you know, I think that's why, more these trials that show the fermented foods have so many health benefits above and beyond what a single probiotic, capsule may have.

Absolutely. And think about the it's microbiome diversity that's super important. Right. And how many bugs can they put in a capsule that you can take in the morning?

We don't have the ability to even extract or or encapsulate very many of them. There's thousands of them in the system. And when you take a cabbage and it's already got its own microbiome, so to speak, on it, and all the organisms there, and then you fermented and those that are growing and more things are growing in there, and it's good stuff and it makes, so that bugs very happy.

The ones that are already there to have good company. Right. Yeah. And it's a fun family activity. Very fun. If you make your fermented food with your children or your grandchildren and then they can see the evolution of the ferment over the next week or two weeks or through expand how long you're fermenting things.

It's super fun. And you can do that with your cabbages, your vegetables. You could do that with your nut milks. And if you tolerate dairies, you could also do it with other dairies as well.

You can even do it with some of those higher glycemic starchy vegetables and make yogurts from, say, sweet potatoes. Right. And it decreases the sugar content.

So how do you make a yogurt from a sweet potato. You basically cook the sweet potato, puree it down, add some sort of starter culture to it and let it ferment like 24 hours, I think, for a yogurt.

And yeah, we're going to be doing a lot about why people that know more than me about that. They teach it in my programs. But yeah, that sounds pretty interesting.

I'll have to give that a whirl. Yeah, you can do it with almost anything. Look up yam gourd. I think I have a recipe for it on my blog. I will check that out.

That sounds really quite fun. Let's take a little with a few moments. Continuous glucose monitors. How do people get them? Why should they get them? And, what would that look like?

Yes. So up until a couple of months ago, I would have said, you have to get a prescription from your doctor, you have to go through a third party company like levels.

Are they a health or there's a few others because there were prescription only. And then in the last few months, Abbott and Dexcom are the two companies that make them.

They decided to create over-the-counter versions of them. So you can actually go there to the Abbott or Dexcom websites, and you can order a CGM and it's great.

Or ask your doctor to prescribe it. The cheapest way is usually have your doctor to prescribe it, take it to the pharmacy and see if you can get them to give you a coupon.

A lot of them have coupons for them, but basically that's it. You either go to your doctor, you go to a company like say a health or levels, or you go and check out Abbott and Dexcom for their new over-the-counter versions.

Oh, awesome. Excellent. You know, and I think this is a tremendous resource. We have, last I think it was 93 million people here in the US with metabolic syndrome.

There's an even greater number with insulin resistance. I don't know those numbers, but I do know every year it's quite a bit larger.

Continuous glucose monitors and finding help

Yes, it's quite a big study posted by, University of North Carolina in 2018 and said that 88% of the population didn't pass the criteria for minimum metabolic health, and it was a simple criteria.

And in 21, 2021, they went back and did it again. It was 93%. So you have to be in that upper 7% of the healthiest people on the planet to not have some degree of insulin resistance, or I call it pre insulin resistance, and it's not a medical diagnosis, but I call it pre insulin resistance because there's signs that you can tell you're on your way but you're not quite medically diagnosable.

So it's huge very huge. It is huge. The average American is having over 300g of carbohydrates every day. The Mediterranean diet has about 125g of carbs.

And for most Americans, those are high glycemic index carbs. They're sugars. They're white flowers, breads, pastas, and cereals. What is shocking for adults?

60% of our calories are coming from sugars and white flowers. And for our children, it's 70% of our calories. Coming from sugars are white flowers, which is why so many children have so many chronic diseases.

Now, so many adults have chronic diseases because we are nutritionally starved. We don't have enough protein, we don't have healthy fats, we don't have enough vegetables and berries in our diet.

Right. Absolutely. Okay. Well, doctor reader Marie Rose Kelso, how am I doing? Good job. Okay, good, good. So how do people find you? Well, first, are you still seeing patients?

Yeah, I see very few people, 1 to 1. But I have programs where I've trained. So I have a an institute where I train health practitioners is called the Institute of Nutritional Endocrinology.

And my practitioners, then you put together programs to take people through all of the diet changes, checking all of the lab testing, etc.. So yeah, and I take on a small number a year to keep my fingers in the pot and to be able to report back to everybody how that's going.

And so, the listeners are probably quite intrigued. I think I got a tune up my, insulin levels. How do they find you? Yes. So if you are interested in helping yourself, my website is Doctor Rita marie.com and my website for practitioners is I and e method.com.

Why do you repeat both again? Yes, doctor Rita Marie is Dr. Rita Marie Rita marie.com. And then the other one is I n e method.com. Okay. Well thank you so much and it's been wonderful.

I so appreciate you. Thank you so much.