Food as Medicine: Reversing Diabetes and Activating GLP-1 Naturally Transcript

(Transcripts are generated by AI and may contain errors)

Summit Introduction and Guest Overview

Welcome everyone to the Gut Health and Longevity Summit. I am so glad you're here today. We're tackling something almost every one of us has either lived through or watched someone else we struggle with, and that's a diabetes diagnosis that's felt permanent the moment it was handed to us.

Everyone is talking about GLP drugs this year, and what almost nobody talks about is what your gut is already making GLP on its own, and every time you eat the right food, it makes a difference.

So my next guest has ran the federally funded study that first proved something doctors had been telling patients for decades was wrong. That type two diabetes is a one way street.

My next guest ran a clinical trial at the NIH, and the results showed strong enough to help change the official dietary guidelines for Americans, which we'll get into a little bit later.

And he has spent 30 years arguing that food is not a lifestyle tweak. It is medicine. And he has the data to back it up. Doctor Neil Barnard is an adjunct professor of medicine at George Washington University School of Medicine and fellow the American College of Cardiology.

His editor in chief of Nutrition Guide for clinicians and the nutrition. Yes, the nutrition textbook distributed to every medical student, which probably we need more of those textbooks.

And president of the Physicians Committee for Responsible Medicine, where I am a member and Doctor Barnard has led the NIH funded trial demonstrating that a low fat, plant based diet controlled blood sugar in type two diabetes more effectively than the standard American Diet Association recommendations.

He's also authored more than 100 scientific publications and 20 books. So many things. You know, we're going to talk a little bit today about the Power Food Diet.

We want to know what the power foods are. So we're all eating them. So Doctor Barnard, welcome. Excited to have you here. Excited to talk to you again.

This time a little bit different topic. So I wanted to start with the first question, which is the belief that almost every diabetic patient has and is handed on day one, that this is permanent and this is the way you are now going to manage your life.

And you ran a trial that actually challenged that directly. So can you share with us a little bit more about this trial, what you found and kind of just giving some insight into this?

Sure. Well, first of all, thank you for including me in the program. I think you've asked such an important question because so many people, virtually everybody, when they get a diagnosis of diabetes, they believe, and they may well be told by their doctor that this is a one way street you will never get.

Not only will you never get rid of the disease, once you get to the stage of needing insulin, you'll never get off your insulin. And that's not that's not said to me.

Type 2 Diabetes Can Improve with Diet

Mean doctors say that because the disease is a serious condition and you want the patient to take it seriously and to end, to make sure they test appropriately and that they take their medications as directed and so forth.

Because if diabetes is not under good control, as you know, it affects your heart, it affects your eyes, it affects your kidneys, it can cause painful neuropathy.

It leads to amputations. And it's not a pretty picture. It can take more than ten years off of life. So you can understand what people have said. This.

However, we came in and we proposed to NIH based on some earlier studies that we had done, that we do a larger study to look at what happens when we go a bit further with diet.

And so we randomized people with type two diabetes to two different groups. The the one group, the control group got the best current diet with the American Diabetes Association was promoting.

And it said you got to cut calories to lose weight, limit bad fats, be be careful about carbohydrates, that kind of thing. And then the experimental diet.

What much further? We took the animal products out of the diet completely. So people were going vegan. And we also kept alls really low, which was surprising to people.

And the third step was that we we favored low glycemic index foods. And all that means is things like beans that tend not to spike your blood sugar too much.

So it was not low carbohydrate at all. There's lots of carbohydrate, but it's healthy carbohydrate and so forth. Anyway, as time went on over the next 22 weeks, the people on the conventional diet did well.

They dropped their A one C by about 0.4. Good change. The people on the vegan diet dropped theirs by three times more than that by a little bit more than 1.2 absolute percentage points.

Just on average. They lost weight and they did this without exercise. Now you and I would add exercise to it. But we wanted to keep it just to food to see what the food alone would do.

They did this without limited carbohydrate, without limiting portions, without worrying about any of that kind of stuff. And it was so easy and so dramatically affected.

But I have to tell you, one day in the course of this study, a man had come in. He was 35. He had diabetes for four years. And he's I said, why did you why did you want to join our study?

He said, my family history. You described his grandfather and then he described his grandmother and diabetes going out of control. And he said, if I don't get this together, I'm going to go blind or I'm going to lose a leg.

So anyway, he was randomly assigned to the Deccan Diet, and he got into it and he thought it was fine and easier than the diets he'd been taught before, and he stuck with it.

A year later, his doctor, his private doctor, had taken him off all his meds because his numbers were getting better. And although he had come in with an A one C of nine and a half, and for anybody who's not, not clinicians, when when people come in with diabetes, we want to get their A one C, which is a measure of blood sugar control.

We want to get it below seven typically. Well he was nine and a half. So he was not where he needs to be. But he but after a year he had lost about 60 pounds.

His A one C was now not nine and a half. It was 5.3 better than us. And I have to I, I, I went in my office, closed my door and I looked at his lab and I thought to myself, here was a man who had had diabetes for four years.

He is now on no diabetes medications. He is a one. C is not in the diabetes range. It's not in the pre-diabetes range. It is a totally normal a one C like a 14 year old kid would have.

And the question of my mind was, could I tell him that he was cured? And that was extremely controversial at the time. You can't tell. You know, diabetes never goes away. It's a progressive disease.

Once you're diabetic, you'll always diabetic. That's what people would say. But here was a man who wasn't. So luckily, since that time, as you know, the medical community has come to accept that diabetes is very dynamic.

It gets worse, it gets better. It does remit. But don't get me wrong, Velveeta is waiting right around the corner. So if he gets into his bad diet habits again, you can get diabetes back.

But what that did is that shot energy into the medical system, because we now know that we have more power than ever before to make this disease improver go away.

But but maybe the best thing about it is the patient has more power. They're not just going to keep on lining up for a prescription, they are part of the solution themselves.

And they love that fact. So so it's been very cool trajectory. So just kind of to summarize and revisit this. So just from the side effects of having diabetes, you did mention them.

And I will tell you more often than not I am still as a pathologist when I work in the hospital seeing amputations and where we're not talking just digits or like, you know, your fingers, your toes, it's usually the toes.

But we are seeing below knee amputations, above knee amputations. And that really is preventable so much earlier on. Instead of just taking your medication and thinking, all right, if I don't change my lifestyle, the medication is saving me.

So I think lifestyle and this diet is a good thing. So what you guys did was compared to the American Diabetes Association, you they still were recommending animal products.

You took the animal products out, you made it low oil and then you still allowed them to have carbs. They were just low glycemic carbs such as beans and lentils and that kind of stuff.

So it didn't really feel like a dietary restriction, right? Because you're actually eating probably a lot more when you eat plants. Yes. Yeah. And that's all right.

And then I wouldn't even necessarily use the word carbs because beans are they have carbohydrate, but they also have a lot of protein. They've got healthful vitamins and vitamin like compounds in them.

The same is true with with something like a starchy vegetable, like a potato. It's got protein to it doesn't like to brag about it, but sometimes people say, oh, these are just carbs, but they're much more than that.

And you know what? I should I should mention why we did this. Like, why would you want to be indicted? Or why would you minimize oils? And the answer to that really comes from studies that went back to the mid 1990s.

At Yale University, researchers did a wild study. They brought in young people who were healthy and skinny, not a trace of diabetes. They put an IV in their vein, and they put fat into the IV lipid so that the lipid was going in their bloodstream.

And what they showed was that within hours, their bodies natural insulin couldn't work very effectively.

How Low-Fat Plant-Based Eating Reduces Insulin Resistance

And they're young people. They're making lots of insulin. They got a healthy pancreas, cranky insulin out. But by putting the fat in the vein, their insulin would go through the blood attached to their, say, their muscle cells and liver cells normally.

But once it was there, it couldn't work. It couldn't open up the cell to allow glucose inside, which is what it's supposed to do. And so what they realized is that when the fat gets into your cells, it causes it's resistant.

So they did follow up studies where they said, well, instead of a vein, let's just give you fat in a meal. And so one single fatty meal, a meal with a lot of palm oil in it, for example, would cause insulin resistance in that afternoon.

But palm oil is an unhealthy oil. It's it's high saturated fat. So let's try canola oil. Same thing. So we thought all right. Forget about sugar and carbs and all the things that people diabetes are always worrying about.

Let's get to fat out of your cells because you've been packing in with cheese, pizza and fried junk and steak and so forth. Let's take those out of the diet and the fat will come out.

So what we did is we worked with Yale and with a technique called magnetic resonance spectroscopy, we can look in the cells and see fat and we can. And what we did is over 16 week period, we were able to pull out about a third of the third of the liver fat.

It just wow comes out and about one tenth of the muscle fat are a little bit more than that. And that's enough so that the can start working. So the the participant could still say, all right, you know, then I could have spaghetti again.

It's an amazing I can have fruit without worrying about it. So it's a very, very powerful thing. And for people who are restricting carbohydrates and saying I can't have fruit.

Da da da da da. Oh my God. Welcome to the modern age. There's a what we want to tackle as the cause of the diabetes. And that is the insulin resistance caused by the fat buildup in the cells.

Yeah. And the terminology I use for fat buildup because I see it very often is statuses. Right. So we see it in the liver. Radiologists will see it in their imaging.

I see it under the microscope. And we are seeing more statuses now in individuals. And a lot of women who are not heavy drinkers, like when we used to think of this, we used to think of like in the space of alcoholic cirrhosis and things changing and, you know, just overall unhealthy.

Now we are seeing a lot of statuses in women who so-called are eating their healthy diet, but their healthy diet also comes with a lot of animal protein and fat, you know, so so something definitely to be observant of.

Before we go into further details about insulin stuff. I want to go back a little bit and set the stage for somebody who might be listening to this and not sure if this is applying to them, because we have different types of diabetes like type one diabetes, type two diabetes, 1.53, you know, can you kind of explain that for our viewer?

So they kind of understand the conversation we're having? Sure. Type one diabetes means that your pancreas has stopped making insulin. The pancreas is an organ right behind your belly button.

And it's job. One of its jobs is to make insulin, which is a molecule that goes through the bloodstream and it parks on top of your muscle cells. And it's just like a key.

It opens up the muscle cell to let glucose come inside. So this your muscle has power. So it has energy. And the insulin key also goes from the pancreas to the liver.

And it opens up liver cells to light glucose inside. That's a good thing. And if something is killed off the cells in the pancreas that make it so, you end up with what we call type one diabetes.

So you need to inject insulin. Type two diabetes means your pancreas is still making it so. But when that insulin gets to the muscle cell or the liver cell, it attaches.

But the signaling doesn't work. And that's because of the fat buildup inside. Now the truth is that people with type one can be insulin resistant. Also, they can have both problems.

So they may not be making insulin. And then when they inject insulin and it goes to the surface of the cell, it might have to contend with some fat inside there as well.

So we've studied both conditions. And a low fat diet is good for both. But it's only in type two where we're going to make it potentially improve to the point where they go away.

And and for some people it's not going to go away. But for some it does. But with type one you're going to continue to need your medication because your pancreas is not making insulin anymore.

Okay. And then where does the terminology insulin resistance fall in here? Because if somebody's been told that they have insulin resistance, and I know this has to do with that intercellular fat that you're talking about and that that builds up.

But but can you explain that a little bit further. Because around perimenopause menopause, women might be experiencing insulin resistance. So what is that transition.

And in their head are they thinking, oh I'm going to develop diabetes now. Like I'm trying to make this practical because I know these are the terms kind of floating around for people, right?

Yeah. Insulin resistance is something that happens and it gets kind of come and go a little bit, or it could get better and could get worse. And all it means is that cell, let's say the muscle cell which is supposed to respond to insular insulin, is like a key that comes through the blood from the pancreas.

Pancreas makes the insulin goes through the blood parts of the surface of the cell, just like a key and a lock. It opens up the muscle cell and the glucose can come in.

But if that insulin key can't open, it can't open the little doors on the muscle cell. That muscle cell is what we call insulin resistant. And so a person can be diagnosed with insulin resistance.

And we know that because they're making insulin, but their body is just not bringing their blood sugar down. The sugar isn't getting into the muscles where it's supposed to.

The surprise is that anybody can be more insulin resistant or less its own resistant, depending on what they're eating and how much they're exercising and so forth.

So, so these are things that we can alter. It's not. And yes, there are genetic components to all of this, but I don't care who your parents were. There are ways that you can change this by changing your diet and not eating your parents is sometimes a good thing.

And what is the relationship with menopause and insulin resistance appearing like? Is there a connection there with the hormonal changes? And now women experiencing this new found insulin resistance?

Basically, they can't eat what they used to eat, right? So many things happen in Minneapolis. However, the same rules apply that if we're on a healthful diet, even insulin resistance that you got when you were 54 years old can it can improve.

And we strongly encourage women who are going through menopause to do exactly the same kind of diet. In fact, we did a study for menopausal hot flashes where we showed that diet can can wipe them out about as effectively as hormone replacement therapy.

The difference there is we use exactly the diet I described.

Type 1 vs Type 2 Diabetes and Insulin Resistance

It's vegan, no animal products we keep all really low. Even the healthy oils, we keep them really low because I want to get the fat out of yourselves.

But we for women going through menopause, we also add about a half a cup of beans every day. And we found that those three things vegan, low fat, and a half cup of soybeans knocked out 88% of hot flashes, which is a little bit better than what hormone replacement therapy will do.

And plus, in the course of a 12 week trial, we had 84 women do this. We found that the average woman lost 8 pounds. They felt better in so many other ways because there's a whole package of things.

Psychologically, how do you feel? What physical symptoms do you have? All those and even sexual symptoms? I don't want to suggest that menopause isn't real, and I don't mean to suggest that you won't have sexual issues going forward that you want to address in other ways.

But I do mean to say that when you're on a healthful diet, it is amazing what it will do for that transition. So okay, so now this is the gut health audience that's been waiting to hear the answer to your question when I ask you this question, because it is everywhere and on way too many people and even doctors taking it.

So everyone has heard of GLP one by now. Okay, but your own research team found something remarkable about where GLP actually comes from. Can you explain a little bit more about what GLP one is before we get into the conversation on the drugs and like what it does mechanism mechanistically?

Sure. GMP one is was not invented by Novo Nordisk. It was invented by Mother Nature and it comes out of your digestive tract, oddly enough. So you eat some food and your gut is your guts pretty smart?

Sometimes it says, okay brain, I'm so glad that you found all this food that we can eat now, but you have eaten it, so I am. Your gut is. You got us talking to your brain.

It says I am digesting and it would help me out if you might stop eating now so that I could digest what you have swallowed. Don't give me another meal while I'm dealing with this one.

So it makes me one to go up to the brain and say, stop eating, turn down your appetite. And it does some other things too, but that's good. So people could be sort of resistant to their own GLP one.

And so Novo Nordisk said, how about this. We'll make what they call a GLP one receptor agonist something that turns on the receptors. They called it. Oh, and they called it wiggly.

It's the same same drug, two different names. And suddenly people found that their appetite was turned way down and it slowed down their digestion. And for some people, that made them kind of miserable and for but for many people it caused weight loss.

Not for everybody, but for many. And so these drugs have been a hit because it's an easy way to for some people to lose a lot of weight, however, would turn it on though.

That's like, oh, what else? What else would turn on on what else would turn on your body's own GLP one? Well over from our research team did a study a number of years ago where she compared a meat sandwich like, like a McDonald's egg burger versus a plant based sandwich.

And she found that the plant based sandwich would turn on, which naturally turned on GLP one, whereas the meaning one didn't. And we are doing a trial now in a large group of people who have type two diabetes, and many of them come in on a GLP one.

I mean, before they start the study, they were already taking it. And we have found two things. The first thing is that

you can lose weight without a job you want with a diet change that we will prescribe about as well as with the GOP one.

The second thing we discovered is that people on GLP ones who come in and make the die change very often through their GLP one in the draft because they're getting the benefit.

They're losing weight really well without paying for the GLP one. Then the big the big disappointment of the GOP ones is you come in, you get really excited and you do lose weight.

I mean, many people lose a significant amount of weight and then you hit a plateau and then nothing else happens. Your other split toe and you go, you call your doctor up and you say, I've been at this plateau for the last four months. I've not losing any more weight.

What should I do? Should I stop the drug? Is this, like, as much as I can do? And the doctor says, no, you can't stop the drug. Because if you stop the drug, you'll regain all that weight.

Well, can I lose more weight? No. You're not going to lose any more weight. That's all you get. So how long do I have to take this drug for? Well, the rest of your life.

And you think? Wait a minute. What kind of drug is this? You know, I've got to take it for. It's like if I had a drug that cured my pneumonia, and now I have to take it forever.

I mean, I wouldn't like it. So anyway, we found that many, many, many of our patients GLP one stop taking us. And that's a good thing for them. It's not over the side effects to not have the expense.

And besides, they didn't they didn't get into weight issues because they had a GLP one deficiency. Anyway, they got into it because their diets weren't prepared in perhaps the most optimal way.

And the study where your colleague saw this, it was a high fiber diet, I believe. Right. So based is going to be high fiber. And to me that tells me that downstream that fiber is creating a more optimal gut microbiome, which is, you know, healthier, happier microbiota as opposed to the angry ones that are suppressed.

So they can't activate anything. So to me, I'm going, all right, plant based, more fiber downstream effect. And then upstream up to activate that GLP.

So you've seen it with your own patients that have come through your the center of the Barnard Center with the trials and stuff. But let's talk honestly about these drugs because I think it's very important for people to be aware.

Like you already said, you go off them. There's a high potential that most people are bouncing back. You you're somebody who spent 30 years getting the outcomes through food.

Menopause, Hot Flashes, and Diet

Okay. That's a that's that's really, you know, the key here. So when people discontinue the GLP one in real world use, I think it was found that roughly two thirds of people who stopped the ones on the low fat plant based diet were 35 point pounds lighter than, say, the omnivores more so.

And the nausea, gallbladder issues, all of that muscle is a real trade off. So for people who are on it and they're getting nervous because they're like, should I continue it, should I not?

What would be a safe way to kind of make an adjustment into this lifestyle? Because we don't want we're not saying your doctor prescribed something, go get off it, but we're trying to share with you more plants make a difference.

So what would be the safest way when you worked with individuals or in the trials? That was it was done. Great

question. What we're really going to do for this person is what should have happened at the beginning.

You know, the prescribing information says that you give the GLP if you're going to give the GOP one, you give it along with a healthy diet. But people kind of forget that part and they think, here's the magic pill.

It doesn't matter what you eat because, you know, appetite anyway. You know, just take the drug. What it was supposed to happen is the doctor was supposed to say, wait, don't just take this bill.

You need to follow a healthful diet as well. And if they had referred the patient to a dietitian and the dietitian says, here's what a low fat vegan diet is.

And this will help you. And I mean, it can work with the drug, but you can also do it without the drug that gives them great power. So it may have been six months later, but we'll start that diet.

And the way we the way we started is we assume that the person is going to be a little skeptical and nervous. It's sort of like jumping to the swimming pool in June.

You think, yeah, I wonder if the water is cold. Will I like it? But of course, once you jump in the pool, you're thrilled. So the patient comes in and we explain how a plant based diet can can help them.

And so we will then introduce them to our dietician, who will meet with the patient and the patient's reluctant spouse and talk about making a change for, for everybody.

Because frankly, the spouse has issues too. And so what we'll say is, okay for this week, you don't have to change your diet. But why? Why do we do this?

Think through with me. Take a piece of paper. And this week think of breakfasts that you could have that don't have animal products in them that that you would like to eat.

And the patient says, well, you know, I'm no big gourmet, but this isn't that hard. I mean, for me, in the morning, I pull the board, I pour a bowl of cereal, and I pour the milk on it and and let's see now, if I use soymilk, that would that, would that be vegan wouldn't it.

Yeah. Okay. Good. All right. They write that down and then they say, well how about if I have oatmeal. And what if I top it with some cinema or maybe some subscribers of blueberries.

Would that be okay? Yeah. Good. Fine. And then how about if I, I like sausage. How about if I go to the store? I always see that next to the regular sausage they have vegan sausage I think they call Morning star sausage.

Would that be okay? Try it. See if you like it. So the dietitian gives this couple a week to think about breakfast that they would like.

GLP-1, Gut Hormones, and Food-Based Alternatives

And they come back after a week and they've got French toast and pancakes and all these things that they vegan and they say, we got it down. We are fine. I even scrambled tofu yesterday.

Can you believe it? Really easy. Okay, next week let's do lunches and dinners. Okay. So then that week they go to their favorite Italian restaurant and they explore angel hair pasta without the meat sauce, but with the marinara sauce or the spicy Arabia or the pesto sauce or whatever it is, or they have a cheese pizza without the cheese for the first time in their life, with extra sauce and veggies and stuff like that.

Or they go to the Mexican restaurant and have veggie fajitas and they go to the Chinese restaurant, whatever it might be. They go to the sushi bar and they have the cucumber rolls and the sweet potato rolls instead of the fish ones.

And so they come back after that week and they say, we got this down. We found so many things that we could eat and we found some convenience foods. So then the dietitian now says, okay, you checked out the possibilities.

Let's just try this. Let's go for the next three weeks, entirely vegan. We're not going to slip up, but we're going to do the foods that you already picked out that you like. Easy. Let's do it.

And during that three period they keep we keep in touch with them every week because they'll have some issue. Like I was traveling and there was a Taco Bell and I wasn't sure what I could eat there.

Well, here's the answers. So they figured out at the end of that three week period, they come back in and they say something is changing in me. My blood sugar went down.

I actually had to ramp myself down on it. So my pants are getting loose already. What's happening to me? This is amazing. Can I do it another week? So sure, let's keep going.

And what they discover is two things. Physically they change. Their blood sugars come down, their blood pressure comes down, their cholesterol comes down.

They lose weight really, really well. Just like a GLP one. But the other thing that happens is their tastes modify. And we see this very fast. If a person, say, goes on a low salt diet, at first it's terrible, but then they come to prefer it that way.

And I'm not recommending necessarily a low salt diet for these people. But similarly, if they did grease their diet, at first it might seem light, but very soon they get with it and they they prefer it that way.

And so their tastes change in their body changes. And now they're set up to for success. And the whole the whole family gets better. And the beauty of it, I have to tell you, you cannot share your GLP one with your seven year old daughter, but you could share a healthy, plant based meal with your entire family.

And when they learn about these foods, you have given them the biggest gift anyone could ever give, which is a taste for foods that are going to save your life.

Yeah, absolutely. So we're going to get into the power Foods. But before we get there, there's some newer well, it's not new, but the American dietary guidelines have changed recently.

And just like you probably are not happy with the results of them because we know what happens to patients. So can you share with us what PCR, the Physicians Committee for Responsible Medicine, what you what is happening and why it's happening, just so people can understand that maybe if there's something that's a guideline or that the government has put out like how to discern for themselves, right.

Okay. Great question. Real quickly, back in 2023, the guidelines were going to be set up for revision because they have to be revised every five years.

So in 2023, the government picked up a panel. And these were good experts. So they worked for the next two years to get the guidelines ready for 2025.

But then the election happened and there was a new administration, and the new administration said, all you people on this Dietary guidelines panel, you're done.

And your report were not interested in it. Forget what you said. And they picked nine new people to to write what they call the foundation for the Dietary guidelines.

But they didn't tell anybody they were doing this and nobody knew what it was. Until January 7th, it came, their new guidelines came down, and everyone was shocked because it said, you remember vegetables and fruits and so, well, those are still good, but we should really worry about protein and you should have meat.

And the cattlemen were just thrilled. And they said, you know, that you've been avoiding all that fat, dairy, fat. Well, you should be eating that dairy fat.

And that's what they said. And so doctors and dietitians were shocked. People who were concerned about the health of their children were shocked because they thought, there goes our school meals.

And so we made a complaint to the Department of Health and Human Services and the USDA. They jointly come up with the guidelines, and we said, you're not following procedure here.

And we didn't hear back. So that was January 8th. And then we met with the administration and said, you made quite a number of scientific errors in developing these guidelines.

And so they kind of listened. But then there was no follow up at all. So about two weeks ago, we filed a lawsuit against the Health and Human Services and USDA simply to compel them to take back the guidelines and to rethink all this.

And the reason we did that is the federal law. There's a federal advisory committee act that says, if you're going to pick a committee to set policy, it's got to be an open process.

If they're looking at evidence, that's got to be open to you have to disclose what you're looking at, and you can't tell parents what their kids are going to eat in school.

If nobody has any say in this and has the ability to question this, this is just not legal. Now, we did exactly the same thing back in 1999. The guidelines were pulled together.

Not quite as bad as this one, but but behind post doors. And we won that lawsuit. And we're going to win this lawsuit too. But the issue is how long will it take to do it?

And so I'm worried that the school lunch guidelines are going to be changed before a court gets a chance to work at it. So we may have to go for a temporary restraining order to stop the government from acting.

Yeah, this is a very important topic because it then has that downstream effect to every single family member, every single person in our country. I think we can tie it into the discussion of the diabetes that we were just talking about.

Because what happens when you have excess protein? It doesn't act as protein. It becomes fat, right? So there's only so much protein a body can take. So excess protein, animal protein to begin with is already a problem.

But the excess protein, when you're doing so much of it and putting it at the top of the food pyramid to prioritize just that, that will turn into fat.

We already have excess fat in our cells, which is also going to increase the insulin resistance of ourselves. That lock and key mechanism you're talking about.

Same thing with dairy. Dairy comes with that. So really when I look at it I'm going, wow, these guidelines just created more chronic disease. And none of us doctors can ever retire because we're working so hard to keep everybody healthy. Yes.

What you said is exactly right. When researchers look at meat, meat is a mixture of protein and fat and the occasional salmonella in there, but it's mostly in fat.

And so the fat will go into your cells and increase insulin resistance. But the protein is, as you said, your average 18 year old high school student is getting about.

Dietary Guidelines, Chronic Disease, and Policy Concerns

A boy is getting probably 90g of protein, girls getting about 65. Both of those are more than they need. And so they're storing the excess as fat. And we are starting to see insulin resistance in kids before they get their high school diploma.

1 in 5 is already obese. I'm talking about it in high school. And so the foods that they are going to be compelled to serve in the school lunches are going to erode their health.

But worse than that is your depriving these children of healthy tastes, the ability to learn about healthy foods. And they are being taught things that are not true, that somehow dairy fat is good for the brain, and somehow meat is going to be good for you and they are going to carry those tastes and that misinformation with them until they're a 50 year old adult sitting on your exam room with diabetes, or they're going to become a pathology specimen under your microscope.

Yeah. Well let's give some people some solutions. Let's talk about the power foods, the ones that make a difference that you wrote about in your book.

You know, we all know we need to eat more of fruits and vegetables except for the people following the latest guidelines by America. But tell us specifically what these power foods mean and what do they do for our body?

Yeah. By the way, to be fair, the new guidelines did say that vegetables or fruits are still good. They didn't take him away. Their problem was they seemed to have this idea that you just got to have a burger and you got to have meat and you got to have have cheese.

And and there were a few other mistakes that they made too. But anyway, we'll fix this if we can. But the power foods, I got to tell you. Well, let me just mention Harvard University came out with a wonderful study.

They have huge cohorts that they follow, hundreds of thousands of people. And they discovered something amazing. And in 2015, they published this these seminal reports, people eating more of certain foods tended to lose more weight as the years went by.

In other words, if you eat more of this food or that food, you would lose more weight and you'd think, wait a minute, that can't be. If you eat more of something, even if it's healthy, you've got to gain at least something.

It's not what they found. They found if you ate more of certain foods, you would lose weight. And the reason is that certain foods tame your appetite, so you just don't eat so much at the meal.

Certain foods high fiber foods trap calories, so you're not going to absorb as many calories. And then there are also foods that increase your metabolism a little bit.

And so it's there. Their everyday foods. At the top of the list was the blueberry and all its cousins like strawberries and blackberries and raspberries and then cruciferous vegetables, which were already our favorite foods because they're cancer fighters.

But broccoli and cauliflower and Brussels sprouts and so forth. These cruciferous vegetables were strongly associated with weight loss. Green leafy vegetables that aren't cruciferous, like spinach or Swiss chard, were also associated with weight loss.

Melon like cantaloupe, it said. Bright orange beta carotene color, or watermelon. It has that red lycopene in it, also associated with weight loss, the entire being group.

Beans, peas, lentils, soy products, soybeans and everything that came out of soy, even soy bacon. Highly processed. Is it healthy? Fine. Beats the socks off.

Pork bacon, I got to tell you. And then citrus fruits. So those were the top ones associated with weight loss. So you could do two things. You could do what I mentioned earlier.

Take the bad stuff out of your diet, which is great to do. But you can also put the good things into your diet. So I worked with Dustin Harder and Lindsay Dixon, and we came up with a lot of recipes for blueberry sirup on cinnamon French toast.

And those used the power foods. So if you don't get, let me show you in this book. The reason I have to show you this is Dustin did this food photography, and when he sent it to me, I said, Dustin, that is about an inch away from food porn.

And it's he, you know, I, I'm a doctor. I don't it's a very nice book I've seen. He did a beautiful job. But the thing about it is they're well tested recipes, they're very quick to make.

And the whole idea is instead of worrying about what you're not going to eat, think about the foods you're going to bring in and have fun with it. And so it's been really, really cool to do.

I love I love that list. Right.

Power Foods for Diabetes and Weight Loss

So the Berry family, especially blueberry, is the cruciferous, the dark leafy greens, the melons, the beans, peas, lentils, soy, citrus I literally have all of that.

Like every single meal like that. That is my meals. I'll give you my latest for what I'm doing with blueberries. I don't think I've even put the recipe out anywhere because it's not really.

I don't really consider it a recipe, but sometimes we can't find fresh, organic blueberries, so I'll have the frozen blueberries. But I don't like the way the way they taste like because I like to eat fresh ones.

But I do want to get my blueberries in. So what I've done is I've taken those blueberries and blended them in a blender and kind of just made like, not even like a sirup because I'm not adding anything to them, but like a seraph in a way, just fresh blueberries, frozen, a little bit of water.

And I've been adding a quarter cup of that to my soil latte every morning. And now I have a blueberry soy latte, which is delicious. Wow, what a brilliant invention.

Yeah. So, you know, I think it's also about thinking about food going, all right, I do like the taste of it. How can I incorporate it in different ways.

And especially, you know, I know some of the people who might be watching are like, well, I don't have access to some of this fresh stuff. Frozen stuff is absolutely amazing.

Right? So and it's quite cost effective to buy frozen organic vegetables. You can get them in fruits, you know, in big bulk even at bulk stores. So I always like people to think out of the box.

And if you're like my mom, you just grow everything. That's what she does. All right. So we've got our power foods. Now for last question. And I want to be concrete here.

So somebody watching who just got a prediabetes diagnosis walked into their doctor's office. Or maybe they were told their hemoglobin a onesie is high or or even got their type two diabetes diagnosis this week.

What should be on their plate starting today? Really four groups the being group and as beans, peas and lentils. So that could be the bean burrito, black bean soup, lentil soup, all those that being super high in fiber.

And I don't know who's going to cheer louder, your taste buds or your gut microbiome because they're going to love you for all that good, healthy fiber.

Secondly, vegetables. And we already talked about some. They can be green vegetables. They can be orange vegetables. But they're good. They love you back.

But don't forget the fruit group. And the grapes and grains could be breads. They could be cereals. They could be pasta. And you might say, wait a minute, wait, wait, wait.

My cousin's got diabetes. He says, you can never have pasta, never have bread, never have cereal, never have fruit. Just breathe and take these foods in and see how you do so.

Beans, vegetables, fruits, all grains ideally refined grains aren't aren't forbidden. But the more this whole grains, the better off it's going to be.

And one supplement that you must take in as vitamin B12. B12 is it's fortified into soymilk and things like that. But you might not be having that regularly.

And it's really important to have an B12 and non-negotiable. That's kind of it. And then when you think about what am I going to turn these into, you will discover a lot of really familiar foods, as well as some that might be new for you at restaurants, Think international.

So that's where I think Italian, Latin American, Chinese, Japanese, Thai, Indian food. I'm a good heavens. I mean, the the jewels that are that come out of the ground as a simple lentil or a simple spinach leaf that can be transformed into wonderful, wonderful dishes.

And see how you do. And what you'll discover is that your dietary exploration brings you to foods that are not only helpful for you, but are better than what you grew up with.

That's certainly true in my case. I grew up in North Dakota eating a pretty pedestrian diet, and now I'm just thrilled with the things I can eat. Yeah, absolutely.

And then the best part is how much better you're going to be feeling.

What to Eat Starting Today and Closing Remarks

That's that's really the best part when when you give yourself that time to experience what all these whole food plant based diet can do for you and you're like, wait a minute, a life just feels easier because actually, I feel like it awakens yourselves.

It awakens your body. So anything else that is on the horizon, Doctor Barnard, that you want to share with us that we need to know about. We are doing some work now on brain health that I'm about a year ahead, ahead of myself, because we're going to be I'm putting out a new book and we're doing some new discussion of this.

But Alzheimer's disease is sort of in the top of everybody's I don't want it list, and there is amazing new research on that. So stay tuned. I'd love to share that with you.

Yeah, absolutely. I'm sure people would love to hear more about that. So, Doctor Barnard, this has been a genuinely eye opening. The idea that our own gut already makes the hormone.

People are paying hundreds of dollars for a month to inject, and that food driven change actually holds up over time. And that's the message I want everyone listening to carry with them.

Doctor Barnard can be found at PC, and I encourage you to look up his books, many of them, and also his program for reversing Diabetes and the Power Foods Diet book, to check out some of these recipes.

The key takeaway today is the hormone the weight loss industry is selling you is one your gut already knows how to make. The question is, what are you feeding it tonight?

So stay tuned to learn some more with our Gut Health and Longevity Summit. So thank you so much Doctor Barnard. Well thank you.