## Introduction and Guest Welcome

Hi, everyone. Welcome to The Reversing Type 2 Diabetes Summit. I am your host, Dr. Beverly Yates. It's my distinct honor and privilege to conduct this interview with Dr. Joel Kahn.

Dr. Kahn is a world renowned expert in cardiology and heart health. Not just heart disease, but heart health. He's a practicing cardiologist right now in the clinical professor of medicine at Wayne State University School of Medicine.

We graduated summa cum laude from the University of Michigan Medical School. He's known as America's Heart Healthy Doc and he's triple board certified in internal medicine, cardiovascular medicine and interventional cardiology.

He very much deeply cares about people's metabolic health, especially their cardiovascular health and wellness. And it's just a wonderful time to connect and to be able to get the pearls of wisdom from his clinical experience and research expertise.

So, Dr. Kahn, welcome to The Reversing Type 2 Diabetes Summit. 2.0. Happy to be here. What an important topic. Definitely. Definitely. So we're going to dive in and have a discussion here and bring forward some of the things that are most commonly on people's minds about this intersection between diabetes.

In this case, we're specifically looking at type 2 diabetes and prediabetes, but really all kinds of blood sugar, dysregulation and heart disease. Unfortunately, there's a lot of overlap.

You and I both know that. So please, would you share with us in today's world, are there any controversies that you might want to clear up for folks. The role of the diet, genetics, lifestyle and type 2 diabetes?

## Type 2 Diabetes, Prediabetes, and Heart Risk

As far as we know, type one diabetes is largely a disease of younger adults, younger children, Although it's occasionally diagnosed in your twenties and thirties, it's largely genetic or autoimmune, and you could unfortunately be raised in a family of good lifestyle and still develop type one diabetes, although there is still that relationship described in a famous study called the China Study about introducing cow milk early in life to a child and a relationship.

It's not proven. It's suspected of more cases of Type one diabetes may be an autoimmune reaction, at least described in that very large, very famous study Type 2 diabetes.

It's not God's will. It's not bad luck. It's usually, you know, food choices, fitness choices, stress choices, sleep choices. They're not always choices.

It's now socioeconomic and equity, access to good food, walking sidewalks, gym access, safe neighborhoods, good sleep, good stress and all the rest. So the fact that Type 2 diabetes is a forever diagnosis when it actually can be largely prevented, halted and actually reversed is, you know, something that's still not appreciated.

Doctors just don't say, hey, Joe or Jane, you know, the 12 month goal is to reverse your diabetes and reduce your medication. And when in fact, that can happen.

Absolutely. You know, it's one of those things where you just look at all the calamity and downstream problems that happen and you realize it doesn't have to be like this.

People don't have to, you know, lose the ability for their brain to function correctly, their hearts lose their body parts,

you know, be at risk, loss of sexual function, enjoy energy.

There's just so many problems that arise from these issues with blood sugar. And so whatever people can do to be healthier and feel better is going to matter in matter in a profound lived experience, you know, for them.

Right. Okay. So that's the misconception. You're stuck on marriage, you're stuck with diabetes, because if you are if you can make no progress, you know, there are implications to life span, quality of life risk, cardiac disease, risk to sexual health, you know, risk of stroke and heart attack and bypass and stent and losing legs.

So you want to you know, I hate to say it like a booger on your hand. You want to shake type 2 diabetes off. Great analogy is. Compelling. People will remember it. Right. Good for you.

Okay, so what is a myth? What's the number one myth in your opinion, that people have about this intersection of type two diabetes pre-diabetes and heart disease?

I think generally they're just unaware of it. So the myth is that everybody understands it. You know that you see your doctor or your health care practitioner and they bring it up right away.

Do you know that your elevated hemoglobin, A1C or fasting postprandial blood sugars are at a range that you're actually you know, in a range we call type 2 diabetes, and that may shorten your life by a decade.

That may raise your risk of heart attack, stroke, erectile dysfunction, peripheral arterial disease, amputation. Do you know we're going to work to remove that from your medical list because that allows also add years of quality and years of quality of your life.

So the myth is that everybody understands that connection when indeed it's not stressed enough. It's not so much necessarily a scare factor, but the reality of the diagnosis has to be huge.

And the other kind of co myth, if I can make up a word, I don't know that that's a formal word, is that pre-diabetes? Again, technically it's all based on levels, but if you're a hemoglobin A1C, which is a simple, inexpensive blood test, everybody should ask their primary care.

Doctor You don't have to be fasting hgba1c or hemoglobin eight and see if it's 5.6% or less. You're considered in a normal range, but optimal is really way down around 5%.

If you're 5.7 to 6.4%, you're called pre-diabetic. And if you're over 6.4%, your diagnosis of type 2 diabetes and obviously it's a spectrum, 6.3 isn't benign and 6.5 isn't the end of the road.

Some people are 11% when they're diagnosed are higher. But that pre-diabetes there is a myth is pre disease. It's not pre disease. Pre diabetics are coding their arteries code, using their nerves, coding their brain cells with layers of pathology that cause disease.

And it's recently been shown if you take a group of pre diabetics that might just get some warning from their health care practitioner and you send them off for a very simple C. T.

scan, everybody should have called a coronary artery calcium scan, but a $100 test at your local hospital you need a prescription for. But there's no needle, there's no injection, there's no pain, there's no claustrophobia.

## Neuropathy and Hidden Heart Damage

If you send a pre diabetic off for a coronary artery, calcium score at age 40, 45, 15, something reasonable, they're much more likely to have proven silent heart disease than somebody who's in a normal range.

So pre-diabetes. This is a diabetic, So Good. Thank you for drawing out those distinctions so that people can clearly understand where the mortal threat lies.

I've often felt that people who say, oh, it's not a big deal, or I will just watch your numbers, whether it's the person who has pre-diabetes or it is a health care professional who is serving them are all missing the mark.

So thank you for making it clear that people really need to pay better attention to that and take it seriously. Okay. Okay. Is there another myth that's really common in your experience that people have about this intersection of heart disease with diabetes?

Another one I got to bring up is the connection between diabetes and brain and nerve disease. I actually just finished earlier today giving an hour lecture on the topic of something called heart autonomic neuropathy.

Now, a lot of people may be aware that there is a condition that can complicate diabetes. That's absolutely worrisome called neuropathy. Maybe you lose this sensation in your hands, in your feet for feeling hot and cold.

Maybe you have painful tingling fingers and toes. Those are common examples of neuropathy, but there's a heart neuropathy, and I'm not sure if it's a myth or a misconception or under appreciation, where the heart itself which the heart is just bathed in all kinds of nerves.

Nerves from your sympathetic nervous system, nerves from your parasympathetic nervous system that the heart is kind of immune from neuropathy. In fact, it's very ominous to have autonomic neuropathy.

Some clues are if you're a type 2 diabetic and your resting heart rate is 98 or 105, that's not a normal resting heart rate. It should be, you know, 65, 70 something down in that range that's occluded.

These nerves have been damaged and should worry you. There's certain findings on the electrocardiogram. If you're a doctor, check your blood pressure lying and check your blood pressure standing and it drops a lot.

Maybe you get dizzy. Maybe you don't get dizzy. Your nerves are getting damaged.

## Nutrition Myths and Smart Carbohydrates

So the misconception and myth is that neuropathy is your hands and feet tingling, but your heart just doesn't give you a dingo. But it's ominous, and you better get that diabetes under control.

Great. Thank you for calling that forward. I agree with you 100% on this. I think people under appreciate the impact and the systemic seriousness of all of this and the fact that, you know, we always hear about the tingling and shooting pain, things like that, fingers, toes, strictly the toes and feet.

But we rarely hear about the heart. And so being able to tie that together, particularly with changes in heart rate or blood pressure, totally makes sense, right?

Because the nerves and the heart muscles have to work together in order to keep us alive. I agree. Okay. All right. So what are some common confusions that people have about healthy nutrition for both their heart and diabetes?

Because you both you know as well as I do that food is medicine and medicine is food. So I come from a very, very long, plant based food tradition where I believe the healthiest diet on the planet is either completely or nearly completely plant foods.

And we're not talking a frozen pizza with rice, cheese and fake pepperoni. That's a plant food, That's a chemical, that's bull. But it is a plant food.

That's junk platform food. We're talking about whole foods like nuts and seeds and whole grains and fruits and vegetables. And the misconception is, since blood sugar goes up when I eat a bowl of oatmeal, I have to avoid all carbs, as if Skittles in a plain bagel are the same as a bowl of brown rice or oatmeal or 100% whole grain bread with some hummus spread that you make yourself, that these are all the same.

They're all carbohydrates. In fact, that is a huge misconception. And the misconception is that they all should be avoided in diabetics. I don't want to just go to the literature and quote unquote, quote, but I do keep up with the literature.

And there just was a big study on from from a database in England, happens to be called the UK Biobank. And it just made the point they looked at a condition called fatty liver disease, which really overlaps so much with pre-diabetes and diabetes.

23,000 people. And when you ate white flour, white sugar, processed food, carbohydrates, you did raise your blood sugar and you did raise your risk of fatty liver disease.

But when you ate Whole Foods, whole grains, whole legumes and made simple things like rice and beans, a traditional dish made for years and years, cornbread and greens, there we go, traditional dish made for years and years, I would eliminate the ham hocks and the turkey tail personally, but when you ate all foods, there wasn't an association with fatty liver disease and with diabetes and another massive study and then I'll stop talking publications, but it's always a fun game.

I just was in an online debate this week with a cardiac surgeon that promotes a diet called the Carnivore diet. Nothing but me. And we debated, but we actually didn't have much to talk about because I could talk for hours on the science and he could talk for minutes about his experience.

And you don't throw away. The experience is worthless, but you have to, you know, go to the medical literature first. That's why we go to naturopathic and medical school.

But just recently, a massive study of a huge number of publications were lumped together. That happens to be called a meta analysis. And if you're eating meat and I'm including fowl and even fish, and certainly processed meats, the bacon's the pepperoni is the hotdogs and you substitute nuts, legumes and whole grains.

In this massive study, your risk of heart disease go down, but your risk of diabetes goes down. So the misconception is that a diet that emphasizes actually legumes or gums or beans, peas, lentils could be mashed up like a hummus, foods like 100% whole grain bread or even 100% whole grain pasta, as opposed to white flour, grains and nuts and seeds.

And I think everybody loves nuts and seeds, although there's a few people take exception. But you can reduce and even treat your diabetes with plant based foods rich in the keyword.

Everybody is complex. Carbohydrates are whole carbohydrates. Nobody's a fan of added sugar. Nobody is a fan of added white flour. If you really want to know if it's working for you or not, you ask your doctor to get a continuous glucose monitor.

You can use a prescription. It won't be very expensive and every time you eat you can check your smartphone so your sugar rise and fall and it's supposed to rise and fall, but hopefully not, you know, to 250 following a meal.

That's a meal that's not working for you. And if it rises to 140, it's no big deal. So anyways, that's a misconception that you cannot possibly treat a diabetic, that they're carbohydrate intolerant.

I mean, everybody is processed, refined, carbohydrate intolerant to a degree, but you can properly design a meal. And I know our diet preferences between your program, Dr.

Eats and mine are not identical. There is a range of approaches, but my patients are taught not to be carbohydrate phobic. They're educated on what is smart carbohydrates.

Same, same. Definitely. You know, the idea of the complex carbohydrates that are slow burning and resistant starches is really the way to go because those are real foods and those are nutrient dense.

And that's certainly something that you and I agree on. And then, like you say, test on gas uses a CGM continuous glucose monitor or if you prefer, you know, the fingerstick at the drop of blood with test strips inserted into a glucometer.

But whatever find out what you're actually actions are to your meals because you might have some healthy meals you're eating, you may have some things you're eating that you think are healthy, that are not, and then you have stuff you're eating, you know, is not good for you. Right?

So there's a range there. Yeah. You know, if people understand how I like my Pringles or pick whatever you want to put in as your processed food of choice, I have to have my little Caesars pepperoni pizza.

And that drives your blood sugar up and over time dries your hemoglobin agency up and drives you to diagnosis of type two diabetes. Are you willing to give up your sexual performance, your longevity, your ability to have normal nerves in your legs and heart versus abnormal?

Are you willing to give that up? You love that pepperoni pizza so much that you know you'll take joy and days out of your life. And if you realize that that's a consequence, that's really death food.

You're eating. So get over it. Yeah, absolutely. Do what works. Okay, cool. All right. So if there is one thing that you can make sure that everyone who has diabetes understands about heart health, what would it be?

Why would be what you just said? Hashtag test, not. Yes. And that's just a little cute way to remember it. I mean, we again, I'm going to stop quoting literature.

We just had a nice study published in the past week where they took about 400 patients at a major university that had heart attacks. And they asked them if they had had a heart attack.

Do you have the big five established risk factors smoking, blood pressure, high cholesterol, high blood sugar, diabetes, and maybe a mom, dad, brother or sister with an early heart attack and about 25% of people that have a heart attack don't fit the medical model that a doctor could sit in the office six months before and tell that patient you're on the road to a heart attack.

In fact, these patients would be told by their doctor, You don't have the big five, you're doing okay, Joe or Jane. So you have to test. You can't just estimate.

And there's this simple heart CT scan that everybody should get, but particularly everybody who's got a diagnosis of pre-diabetes or diabetes.

## Testing for Silent Heart Disease

And I mentioned it once already, a coronary artery, calcium CT scan or a heart calcium CT scan takes 10 seconds. There's no needle, there's no claustrophobia, there's no pain, there's no allergy.

It may cost you about $75. Usually insurance won't cover it, which is the most insane, frustrating situation. But you want to be a diabetic with a calcium score of zero.

You're in pretty good shape. You don't want to be like I just did yesterday to a patient email and wow, your CT scan came back. 684 You've got silent unknown plaque.

So the message is don't assume because you feel okay and you went to the gym today, which is a great thing to do that you are without heart disease test, not gas.

And it's simple. It's available. Just ask your doctor. I got to get one of those heart calcium CT scans. Write me a prescription. Please. Please. I'll pay for it.

All right, great. That's fabulous advice and insight and coaching. And I feel like up underneath there, there's a few things I want to tease out here with you.

One of them that I think that goes along with this is that if someone is diabetic, if someone is obese or overweight, things like that, known metabolic disorders, people are more likely to get tested and assessed.

What about people who are toffee thin on the outside, fat on the inside who are struggling with metabolic issues and maybe are not getting correctly assessed because they aren't being tested.

Therefore they left the gas and people say, Oh, you're healthy, you look okay, or just whatever. Again, making the assumption because like you said, 25% of the people who are showing up with these heart attacks did not have a prior workup or profile. It pointed to that risk.

Yeah, that kind of goes along with what I said. You know, maybe I'm aggressive, but I assume everybody might have heart disease. You know, if it was a $5,000 test, if it caused serious side effects, like allergic reactions, if it was painful, we're talking a coronary artery, calcium scan, and you can be thin on the outside and fat with liver disease and pre-diabetes on the inside.

There's a lot of environmental influences, genetic influences and the rest. So I would never stop testing just because somebody is on the thin side now at age 30.

A little early to look, although you'll find some heart disease at age 30, but by 40 to 50 and a diabetic closer to 40 in a pre-diabetic closer to 40 and all the rest, they should be tested and like a colonoscopy comes back perfect.

Do it again in 5 to 10 years, maybe five. All right. Super. That's only makes sense. Thank you for walking us through that, clearly. Okay, let's change gears a little bit and just talk about this issue, because I know it's on people's minds.

We both know, in fact, everyone listening, I'm sure, knows that the heart is made of mostly muscle tissue. Now, there's really popular prescription drugs that are available right now.

Michael's Mpic we go B man, Jaro, you know these GLP one peptide drugs, do you have concerns if people are using those medication and using them appropriately, not people for vanity weight loss, but people who actually meet the criteria diagnostically for what's the medicines were developed, whether it was diabetes or it is for obesity.

Do you have concerns about them being able to preserve that precious cardiac muscle mass? Yeah, I do. I have concerns. I think we're learning about, you know, the drugs that you correctly call.

What Ozempic will go the moon gyro.

## GLP-1 Medications and Weight Loss Drugs

And now there's a new name ex bound. What a great name. Somebody came up with that. If you use the drug known as Moon gyro, if you use it just for weight loss because it was developed as a diabetes drug, you know, this company, Novo Nordisk from Europe, has so much money because of the success of this drug and apparently other drugs.

They are actually the number one most valued company in all of Europe. I mean, bigger than any other company in all those countries. And they are, to their credit, organizing very large research studies that are very expensive, but they're just like slamming down one more win after another win.

So we had some data that if you were a diabetic and overweight and put on this class of drugs, injectable drugs will call it ozempic for the fun of it.

And you followed up who's going to develop heart disease? That risk goes down over three or four years. The

company funded the study. It was very expensive and it came out for them a win.

And more recently they went over to the drug couple. Govee, and they took a group of, I think nearly 20,000 people that didn't have diabetes, but they were overweight and they were at risk for heart disease and have got well, go three and a half got a placebo shot and they had a big win because they were able to identify that the risk of heart events in these overweight people went down by about 20%.

And I'm sure they're going to get a FDA labeling that what goby reduces heart disease in diabetics. That's really ozempic and we'll go V reduces heart disease in non-diabetic overweight people and I assume Moon Gyro and its sister drug X bound will follow soon after they are reaping in enough dollars to spend on research.

And that's not all bad. I know some people will say, how can you trust the research when it's company funded? But truly these people have independent monitoring boards and nobody else is going to do this study.

So we're learning. You know, I always lean the lifestyle, but we do know not everyone can reverse their type two diabetes. Not everyone can do it with diet and exercise alone.

So I'm keeping open minded. I put very few people on these medications, but I have put them on and, you know, they're just frustrated. No, it shouldn't be used for cosmetic reasons, for sure.

Yeah, absolutely. I agree with you about this. I've been longing to see that trend for sure. All right. Now, the if people like the media, Sharon Osborne, has been in the news because she feels she had a pretty serious side effect from using what go just to slim down to get into a size six dress instead of a size eight dress or something in those terms.

And she's been in the know. So, yeah, there's some people being harmed. There are but one we have literally millions of diabetics and overweight people in the United States that are in a rut.

They need to listen to Dr. Yeates and Dr. Khan first and work hard on lifestyle. But I'm not opposed to having options down the road.

## Cholesterol, Eggs, and Saturated Fat

All right. So for those of you in premium, we're going to continue this conversation. Those of you who are not conversation stops here. Okay. So, Dr. Khan, what is your clinical experience regarding whether people with unfriendly cholesterol profiles, should they reduce their intake of cholesterol, high cholesterol foods such as eggs?

I've been asked this. I don't know how many times over the years. I'd love to hear your thoughts. Yeah. This says, you know, and high cholesterol foods, egg yolk would be a common one.

So one observation is number one, plant based foods have no cholesterol and it takes a liver to make cholesterol. And I've never seen a broccoli that had a liver in it.

So there are no high cholesterol plant foods There are. And then it gets we got to get a biochemistry degree because the other topic is satire. Rated fats and saturated fats are a particular chemical class that exist in mainly animal foods like meat, cheeses, butters, whole fat dairy, including white meat, spork and turkey and chicken.

They all have saturated fat and finally, a couple plant based foods have a lot of saturated fat. That's where that gets confusing. That's mainly coconut oil and palm oil.

So the data over the years can largely be concluded that dietary cholesterol doesn't exist if you're on a plant based diet like I am, and it's relatively small in most people's diet, if they're eating, you know, a typical American diet.

And it's hard to show that the dietary cholesterol raises the blood cholesterol and therefore it's hard to show that the dietary cholesterol directly causes heart events.

It's a much different story for saturated fat. Going back to a proposal 70 years ago and solid science for 60 years, that saturated fat is one of the major causes.

So people are eating a lot of egg yolks and a lot of cheeses and a lot of dairies and a lot of butter and a lot of meats of all kinds, whites and reds, particularly, you know, processed meats for sure.

The pepperoni is in the hotdogs that they are raising, their cholesterol in their blood. Some people a lot. There's differences based on their gut and their genetics, some people less so.

But there's undeniable data that the high saturated fat diet group generally raises their cholesterol. And if you wait long enough, because heart disease does not develop overnight, you will raise your risk of both heart disease like heart attacks and strokes and type two diabetes, saturated fat and type two diabetes go together like mac and cheese.

So your best to, you know, always have a big salad and chickpeas and red peppers and a and an apple. That's another myth that fruit raises the risk of diabetes.

Eating an apple has been studied and it does not raise the risk of diabetes, Drinking cans and cans of Mott's apple juice might. But the magic of the fiber, the water, the nutrients in an apple or an orange or a peach or even a banana offset any natural fruit sugars.

But I got off track. So that's the dietary cholesterol answer. Okay, great. So this brings to mind the old adage of an apple a day keeps the doctor away.

Sounds like you're in agreement. Absolutely. I an apple a day. I prefer organic apples. Yeah. Actually, one of the most pesticide coated foods on the planet.

Our apples just spray on the tree so they make it to the end and can be sold. But that's not the kind of apple I choose to eat generally. Yeah, I hear you about that apple snob.

I'm sorry.

## Medication Interactions and Monitoring

Again. I'm an apple snob. Apple? I hear you. You know, the world that our great grandparents and grandparents were in, in terms of chemical exposure is so different than the world we're in.

So we just have to be smart about what we do as much as we can. Okay. All right. So going back for a moment to the medications and the things that go with that are there any common adverse interactions that you're aware of between the medications and supplements that tend to go with diabetes and heart disease? Right.

So like Lipitor, Metformin, that was Mpic meal, zero supplements. What are there any cautions there? But the one that comes to mind quickly is I am not an anti statin cardiologist, but I use them much more sparingly than most cardiologists and at lower doses.

But there's no question if you read the package, insert it says it, your blood sugar can go up on a statin. Not everybody's, but you can you can go from normal to pre-diabetic.

You could go from pre-diabetic to diabetic, you could go from diabetic reasonable control to diabetic worst control. And, you know, many of my patients have observed that.

I've observed that. Some of them have worn their continuous glucose monitors and have said, when I'm on my statin, my fasting sugar is 128. When I'm off my statin, my fasting triggers 94.

And you know, these are real solid observations. Recently, a study suggested that a popular statin called Crestor

Rosuvastatin, is a little bit more likely to raise your blood sugar than another popular statin called Lipitor or Atorvastatin.

So, you know, I always will follow up if I start a patient on a statin and recheck their sugar may be fasting sugar, fasting, insulin, hemoglobin, A-1.

C, I put these people on coenzyme Q10. Q10, there's some animal studies that say that will keep their blood sugar under control and it's a wonderful vitamin to be on anyways, in my opinion.

But we haven't had that big, big study to prove it. So that's one aspect. Metformin can interfere with the absorption of certain minerals. I think it can affect B12 levels occasionally magnesium.

So it's not that you can't use metformin, but you probably ought to do some blood work in addition to the diabetic blood work. Ozempic And what Govee and moon gyro and expound.

I'm not aware of any clear cut, you know, drug interactions. They can affect the gut and the pancreas. So there's a need to monitor them with clinical exam and lab work.

But in terms of an actual drug drug, I can't think of one offhand.

## Exercise, Strength Training, and Movement

Okay, great. Thank you for that update. This one on the check in about that because, you know, I feel like this is all a real time experiment as we gather more data about the interaction of these things.

And we have so many more people on these drugs now. I mean, like, wow. Right. I agree. Of course. All right. Another question for you. When it comes to exercise and strength training, I've always thought of them as a two pronged treatment strategy.

Right. Would you agree? What are your thoughts about exercise and strength training as an effective treatment strategy for improving both at the same time, blood sugar control along with any issues with heart health?

Yeah, I mean, it's pretty commonly said by many online experts and good ones included. Yeah, because they're not all good. But that, you know, perhaps the most important habit to develop during life is a regular fitness program that unfortunately includes strength training.

I prefer I always gravitate to cardio. I never was a weight room guy, but I forced myself every other day to do some weights, usually at home or if you belong to a gym, maintaining your muscle mass.

You know, muscle is a really important organ in glucose metabolism. And in fact, when you eat and your body releases insulin, if you're healthy, that glucose tends to be taken up by muscle more than any other organ.

So if you're thin and frail and losing your muscle as opposed to being a little bit more muscle bound, which generally takes exercise, you're better off in terms of your blood sugar.

You know, you don't want to be jacking up your muscles with steroids and other unnatural things because you'll end up on the opposite end of the spectrum with promoting diabetes.

But now you want to exercise. And the thing is, exercise isn't just for diabetes, it's for your brain, it's for your heart, it's for your sexual health.

It's for, you know, your parents, your aging. So there just isn't any way around it. You got to create home or or gym time. And some of it's easy. We've learned the worst thing you can do as silly it is, is sit for prolonged periods.

And actually it's healthier to sleep than to sit. And nobody knows quite why. But that is an observation from science.

Of course we know sleep is healthy, but when you look at the risk of heart disease there, you're better off taking a nap than sitting at the desk for some reason.

You know, both have their pros and cons, but I have a standing desk in my office. I've had that probably for a decade. I have one at home too, and I'm pretty well known because I have a weekly podcast and I have treadmill desks.

That's a little exotic. But I took my standing desk and I bought a $400 treadmill that goes underneath and you just walk 1.3, 1.4 miles an hour. It's slow enough. You can type, you can talk.

And I'm doing this all day long when I'm seeing patients and they think I'm nuts. And they're largely right. But actually, you know, it is one way because I'm not a mailman.

I'm not walking all day long, you know, I'm not delivering packages jumping up and down. Most doctors sit most of the day. And you got to avoid that at all costs.

Don't sit. Move around, shake. I'm sitting right now, unfortunately, But it's, you know, for the 35, 40 minutes. But generally you want to build is any kind of motion in your body is better than sitting long periods.

Of course the worst situation is truck drivers and people at desks, in cubicles where they can't move as easily, but then take a little what they call an exercise snack, get up for 5 minutes an hour and do a little jumping jack or some squats or walk around the office, take a phone call standing because standing is great.

## Stress, Sleep, and Inflammation Reduction

Standing is good stuff. Yeah, definitely. I totally hear you about that. I have a standing desk and a walking treadmill for the same reason because I just find it the sitting thing.

It's unnatural. And I know that, you know, people think of sitting as the new smoking. So enough said about that. Right? All right, cool. You know, we haven't talked much about this topic, and I want to get to it before we conclude our interview here.

What role does stress play in this overlap of heart health issues? You know, heart disease, the expression of heart disease and diabetes. As stress is a big, big, big factor and a tough one because we all have it.

Some people manage it better, some people manage it not as well. Some people breathe and laugh and have music and get over it and some people are stuck in a stress cycle where they're just trapped in it due to their own personality or background or lack of tools.

You have to have tools for stress. And there's no doubt, you know, there was a famous study, I'm going to say, 20 years ago called the Inter Heart Study Factors that Predict the Development of heart Disease as a fairly large study, I think largely in Europe and like psychosocial stress was up there was smoking and diabetes or predicting heart disease. Dr.

Dean Ornish has been an advocate of learning about and managing stress to manage heart disease. His program of reversing heart disease includes stress management, breathing exercises, meditation, yoga.

There's something called four, seven, eight breathing. Go look it up. There's box breathing, go look it up. Various ways to manage stress without just completely freaking out.

And also, it's a big deal. It's underestimated. It's sort of hard. I ask all my patients about stress and what tools they have to deal with it, but you need a tool and you know, the tool is invaluable and the tool is an add a van, and the tool probably isn't a bong.

The tool is going to take a walk in nature, get a puppy, you know, learn them, learn to meditate, get 8 hours of

sleep. That's probably the best diabetic prevention and stress management program combined.

Definitely 100%. I agree with you about that. I think that those tools are things that we can do that are simple and within our purview, things that really don't cost us any more money.

We just need the information and actually do it are underappreciated. There's not a pill necessarily to take for that. It's just it's these lifestyle things that, although they seem simple, maybe aren't easy.

And so we just need to give ourselves grace. I was talking with a patient yesterday about this. You resolve grace, take action and build that habit the same way you have the habit perhaps of not caring for yourself, or you've got a situation that's gone completely out of control.

Do what you can to prioritize. Make your health that number one topic for yourself. I agree. Okay. All right. So as we wrap up here, one more question for you, which is this.

You know, when we talk about metabolism and metabolic illnesses in this regulation, diabetes and heart disease, unfortunately have this in common around issues with inflammation, what are the best things people can do to lower their levels of inflammation.

In number one, get checked because you may feel inflammation just stiff and joints and pain, but you can ask your primary care doctor specialists to do a simple blood test widely available covered by insurance.

It's called five letters S H C R P sensitivity C-reactive protein, 20,000 research articles, 25 years of experience, and you'd like to be under 1.0 that would be a real good place to be over.

3.0 is a risky place to be, but you can lose weight. You can get checked for sleep apnea and you can do a home sleep apnea test, particularly if your snoring or sleep is irregular.

And if you have sleep apnea, go find a specialist and get treated. It could be a sleep doctor. It could be a sleep dentist. But don't ignore sleep apnea.

It'll ruin your brain and cause your blood sugar to go up and shorten your lifespan. Potentially, you can avoid inflammatory foods like processed garbage, saw added salt, added sugar to and eat whole foods, clean foods brightly, colored foods, clean foods, get out of restaurants and eat and certainly get out of fast food restaurants.

## Closing Remarks and Where to Find Dr. Kahn

Eat more at home. Exercise is anti-inflammatory. Plant based diets are an approach are anti-inflammatory. There are supplements called Q10, turmeric, curcumin, alpha lipoic acid.

I know you're a fan of some of those do Dr. Yates that are anti-inflammatory. But you can do it with with natural approaches, too. And you can see that blood level come down.

You know, you can see your H S C R P of 5.2 come down to 1.9. That's a huge an enormous reduction in your cardiac risk. Totally. It's completely worthwhile.

Friend So, you know, every word that Dr. Kahn has shared with us. Absolutely. It's based in science, it's based on clinical experience. It's what's actually working for humans right now.

Right? Good. All right. So as we bring this interview to a conclusion, Dr. Kahn, thank you so much for being such a wonderful guest and answering these questions and bringing clarity and light and science and actual facts along with your sense of humor here, I've had the opportunity to interview you before.

It's always it's always a great time. Where can people find out more information about you and your work? You'll find me in the produce department of your local grocery store, picking out my cucumbers, lettuce.

You don't find me there. Look for me online. The most central place would be www.drjoelkahn.com. It'll link it to my office, which I do telemedicine and live visits in Michigan.

And about 27 states weekly podcast books. I've written articles, I've written all kinds of fun stuff. All right, great. Thank you so much for being a colleague and linking arms with me here around, you know, helping people live a healthier life and to have quality credible information that's actionable so that they have the clarity to make the decisions they need to make so they have that healthiest possible life.

So their life span equals their health span, because for a lot of people, they're over living in terms of their amount of health and it's miserable as they get older.

We want people's health span to overlap 100% with that life span. I agree.