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SEAN HASHMI MD

The Connection Between Keto Diets & Kidney Disease

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The Connection Between Keto Diets & Kidney Disease – with Sean Hashmi, MD

The following transcript is an approximation of the interview.

Robby Barbaro, MPH: Dr. Hashmi, thank you so much for joining us. We're glad to have you with us.

Sean Hashmi, MD: Well, it's a pleasure to join you guys, and as you know there's a special place in my heart for Cyrus, and so anytime he calls on me, I'm at your service.

Robby Barbaro, MPH: Unfortunately, he can't be with us today, but I promise, I know you have a special place in his heart as well. So, we are going to talk about a lot of different topics today, but you are an obesity medicine specialist, and in the world of weight loss there is so much confusion around plant-based diets versus ketogenic diets. So, what is the latest research on this confusing topic?

Sean Hashmi, MD: Yeah, so it's really interesting, right? So, I'm a little bit unique in that not only am I an obesity medicine specialist, I'm also a nephrologist, so I deal with kidney patients and the number one cause of kidney disease is diabetes, diabetes, and diabetes, every time. And obesity is a subset of that, of course leads to diabetes and all sorts of issues going on.

The confusion around ketogenic diet, and the confusion around what's better, keto or plant-based, is really based on the fact that people will do a fad diet and they will lose a lot of weight, and as a result they will translate the external appearance or how I look on the outside to what's happening inside my body.

And the importance of this is, what I tell people is, if you aim for weight loss, the only thing you're going to get is weight loss, but if you aim for health,

you're going to get a better mind, better heart, better gut, better kidneys, all these changes. Your mood's going to be better, your sleep is better, your sex drive is better.

So, what the data shows around things like plant-based versus ketogenic diets is the concerns that we have around ketogenic diets, for example dealing with kidney disease, is the high saturated fat content is directly linked to kidney damage. Other stuff that we know is things like metabolic acidosis that occurs. Acid in the body leeches the calcium and phosphorus out of your bones. So there's an ongoing debate, right? You look at countries that have the highest consumption of milk, and the highest fracture risk, and it's actually almost linear, and United States is actually quite high up there. So you can't just go ahead, and then take a bunch of milk to be able to get over that, it turns out that all this acid not only does it affect your bones, it's making all of your organs work that much harder. So that's one risk.

Second risk is this concept of insulin resistance that occurs. As you go on a ketogenic diet, you start to put all these fats inside your cells, those cells become filled with fat, and now they become resistant to the actions of insulin. So when we talk about diabetes, we say “well, what happens?”, you know, what we know is that it's almost like a one-two punch, you have to create that fat inside the cells to create the insulin resistance, to make it harder then for the insulin to work. So when people say, “well, I'll just do a low-carb diet to overcome my diabetes”, you're not addressing the root cause. The root cause is not that you got to get rid of the carbs, the root causes, you got to get rid of the resistance.

Other stuff that's really concerning on a ketogenic diet, when you look at the studies, is what are the dropout rates. On average you're looking at over 50% dropout rates as you get to about 12 months. So think about that for a second, most of those people in a controlled study, there's already a selection bias. So you know, Robby, if I asked you, “hey, I'm doing a study, and I want you to be in it”, if you agree to be in it, you're already interested. But then, you know, if

you and Cyrus signed up, and one of you guys are dropping out, what does that tell you? That even the people who are most interested couldn't hang with it.

But here's the real danger, when people go on a diet, they always talk about “I'm having a cheat meal”, or “I'm having a cheat day”, and the danger of cheat meals or cheat days is, we know that as soon as you start a very low carbohydrate diet, or specifically not the Atkins variety but let's say the ketogenic variety, you start to develop insulin resistance. As you reintroduce the sugars, so you have your cheat meal, you go get a big mac and fries, and you're eating away at it, all of a sudden what we have seen, and there was a really elegant study in cell that basically looked at their blood samples, and what they showed was, they could see endothelial cells, which are the cells lining your blood vessels, breaking apart, releasing all their particles as people ate a meal that was high sugar, and these were people who had just done ketogenic diets for only a couple of weeks.

So, the danger there is, it damages the lining of your blood vessels, we know that there's impacts going on in terms of your kidneys, your heart, we know there's insulin resistance going on. We know that if you do a plant-based diet, in a head-to-head trial between ketogenic and plant-based diets, the folks in the plant-based diet arm, without being told to restrict calories, on average were eating about 600 to 700 calories less a day, why? Because it takes a heck of a lot of kale to equal one big mac.

So, as we think about these topics, you know, one thing that people always say is, “well, look, ketogenic diets have been used in epilepsy”, the answer is yes. There's some data that shows the ketogenic diets for example in Parkinson's, in Alzheimer's, dementia, people perform better on memory tests, that's true. But you know, you're going to get Parkinson's or Alzheimer's decades down the line, your risk of having a heart attack is probably sooner. And so, when you look at the risk-benefit ratio, it doesn't make sense.

Now, what we do in our patients is, in our obesity practice we use fasting, and what the type of fasting we use is called time restricted feeding, or time restricted fasting, and essentially the most common one is an 8-hours eating window, 16-hours of fasting, and that does exactly the same benefits as supposedly keto does, which is you're able to create beta-hydroxybutyrate or ketone bodies. Those ketone bodies have been shown to help things like memory and stuff. And by giving your gut a break, you do numbers of benefits for your gut. So you start to heal your things like leaky gut, and stuff like that.

And then, the last part is, as you think about this really key topic, there's things you got to remember, there is power in antioxidants. So, the dementia diet, right? Is nothing more than colorful fruits and vegetables, because you get all of these flavonoids, those flavonoids are so powerful for preventing diseases. But as you go on a low carb diet, you're restricting yourself of all of those things.

There's a number of fruits, and now we're talking fruits with carbs, but fruits not fruit juices, that are loaded with fiber. Fiber is a prebiotic for you, right? It's wonderful. It creates short chain fatty acids, it heals the gut.

In dialysis patients, what's fascinating is, there was a study in Japan, and what they did in Japan was, they didn't have enough dialysis machines, so if you reach dialysis and you weren't lucky enough to get a machine, you would die. So they would put them on a very low protein diet, and they would have them have these potassium binders, and lots of vegetables. Well, there was a very elegant study that showed that if you give people fiber, it reduces the production of uremic toxins inside your gut, and prevents them from going into your bloodstream. So, just by reducing toxins, you're reducing the damage to your brain, to your heart, and in kidney patients 20% or 1 in 5 die every year. So, how powerful is it that a little bit of fruits and vegetables with fiber in it can lower your toxins in your body.

So that's a long-winded answer to essentially say, if you're thinking about the keto diet, and you're just looking at weight loss, you're missing the whole picture.

Robby Barbaro, MPH: This is, we could go in a million directions now, thank you for that answer. And it's exactly what we've been saying over, and over again, with people living with diabetes, is you see the short-term result. Yes, if you take out the carbohydrates, yeah, okay, your blood glucose can come down, your insulin requirements can come down, but you're not addressing the cause, and you're not looking at the entire picture here, which is exactly what you just eloquently described here.

So, one thing I'd love to learn more about is, how do certain foods contribute to inflammation in the diet?

Sean Hashmi, MD: Yeah, this is a great question because lately there's been a lot of buzz around certain fruits and vegetables, and night shades, and all sorts of things, and lectins being harmful and causing inflammation, and that's why you shouldn't eat them. But you know, once again, people are missing literally the forest for the tree.

It turns out that if truly things like lentils, and legumes, were bad for you, right? Most countries in Southeast Asia, in South America, they wouldn't exist, everybody would be dead already. Like, if you go by that theory, and you look around you, and you say if that's the case, all of these folks would be dead already.

But when we talk about true inflammation, what we're talking about is things like what happens to the key markers, such as IL-6, interleukin-6, and all of these other interleukins that are found elevated in a lot of autoimmune conditions. And what we know is that if you start to eat foods that are rich in plants, rich in vegetables and fruits, rich in fiber, you're going to find that naturally your inflammatory levels go down.

There is such a thing as an alkaline diet, so in kidney disease for example, we can slow down your progression to dialysis simply by putting you in an alkaline diet. And that sounds really fancy, right? So people get so excited, they're like “ooh, this guy knows an alkaline diet, it must be some really cool stuff”, and then I turn around and say, “well, an alkaline diet is nothing more than a plant-based diet.” So you can call it whatever the heck you like, but at the end of the day, you want to have the majority of your foods come from plants.

If you're somebody like me who follows a whole-foods, plant-based diet, great. If you can't do that, wherever you are, you can move, because every step you take you lower your inflammation. And a good rule of thumb is, as you're thinking about how to structure your meals and all this stuff, is you know they have these Dixie plates, I don't know if you've ever seen those, it's like a big plate, it's got a half of the portion, and then it's got two small portions, right? Which is like a happy face. If you want to feel happy, think of it like that.

So, what I tell all of my patients is, the 50% of your plate should be vegetables and fruits. And there's actually a really elegant study that shows what the optimal ratio to vegetables and fruits is, and it's really two-thirds veggies, one-thirds fruit. So if you want to do that, or if you want to have all veggies it doesn't matter. 25% is your complex carbohydrates, what are those things? Brown rice, right? Whole wheat. And remember, it's got to say the word “whole”, it can't be white bread, they try to add the “wheat” back because, that doesn't count. So whole wheat, whole wheat pasta for example, right? Sweet potatoes, that's 25%.

And then, your 25% is protein which, once again, tofu does wonders for people, right? Don't forget the beans, all sorts of legumes have protein. But you know, we get so scared of soy based products, because we think, “oh, my God, it has estrogen”. And the answer is, it does not, it has phytoestrogens.

And what phytoestrogens are is, they mimic whatever the body needs, so if the body needs anti-estrogen, meaning it doesn't need estrogen and it needs to block the effects, tofu does that. So when you think about this, and especially in our breast cancer patients post, we absolutely recommend taking things like tofu. Tofu is excellent.

And so, as far as your overall strategy for an anti-inflammatory diet goes, it starts with the basics, which is eat the majority of your diet as whole-foods, plant-based, and you're gonna do amazing.

Number two is, the second part of inflammation is, it's almost like you gotta create a little inflammation to get a lot less inflammation in the long run, which means you gotta move. If you don't move, you're not going to get those incredible benefits that exercise provides.

And the third thing is you got to sleep. If you don't sleep your ghrelin hormones, which is your hunger hormones, are going to shoot up, you're going to be so hungry, you're going to eat like crazy, and guess what? You're gonna gain weight.

So, an anti-inflammatory diet is one that is plant-based, add on the sleep, add on the exercise, and at the end of the day nobody will care how perfect your diet is, they will care how you treat each other, so practice gratitude and kindness, because if you practice love towards other people, what it does is, it actually naturally lowers your blood pressure. What a great way to lower your inflammation levels, by telling somebody thank you, by “hey, you made my day. Did I tell you how much you mean to me, today?” You see, those things that you're doing, it's actually being really selfish, right?

My non-profit is SELF Principle, and my buddy Columbus Batiste, he always jokes with me, he says “you got to be selfish to be able to get these benefits”, and his concept is, is that as you do stuff for others, you're really getting the benefit yourself. Every time I go out and I help somebody, I feel better, my

endorphins get released, my inflammation goes down.

Robby Barbaro, MPH: This is beautiful, it really resonates with something that's personally important to me, is this idea, this whole body of knowledge called nonviolent communication, and Marshall Rosenberg is teaching how one of our greatest needs, beyond the physical needs, is to just to serve others, like that's what makes us happy, so that's really beautiful what you're describing there.

Now, you've mentioned kidney disease several times here, and I know that's obviously one of your specialties, so I'm really curious to have you kind of do a little bit of a deep dive here into how diabetes is connected to kidney disease, what type of lifestyle habits basically cause people to develop kidney disease, and then how plant-based nutrition can treat kidney disease, reverse kidney disease, there's different stages. So, if we could just do a deep dive on that, it'd be great.

Sean Hashmi, MD: You know, such a great topic and such an important topic, right? So remember, kidney disease gets very little attention out there, in fact kidney disease actually kills more people than breast cancer or prostate cancer. People don't know this. Yet at the same time, it never gets the attention of breast cancer, we don't have an annual kidney walk, we don't have commercials about prostate cancer going on.

So, I'm a little bit in the minority when I talk about kidney disease because every single disease, every single specialty, you name a specialty and eventually their patients come to us. It doesn't matter, cardiology, so heart problems, oncology, cancer problems, brain stuff, everything leads down to the kidneys and eventually kidneys go bad. And what's really scary is according to statistics, you're looking at about 1 in 7 people out there actually have kidney disease. Now, why isn't everybody screaming? Because there's no symptoms. You don't feel pain in your kidneys, kidneys don't hurt. The only time they hurt is if you have a kidney stone, or if you have kidney infection.

Otherwise, if you're walking around with kidney disease, you don't feel anything, in fact it's very common for patients to come to me, who are in emergent need of dialysis, with the only symptom being I feel tired, that's how crazy it is.

So, if you're wondering and you're sitting out there, “hey, do I have kidney disease?” You should find out. How do you find out? It's a simple blood test, right? You go to your regular doctor, as part of your annual workup or whatever, they'll check your labs and they'll know it.

Now, the number one cause we already said was diabetes. What causes diabetes? It turns out it's our lifestyle. You know, in America, what I've noticed is, is that we are always in a hurry. When I've traveled across the world, and given talks all over the place, what I've found is, I meet people and genuinely they're relaxed, and genuinely their lifestyles are good, and their work hours are not that bad, and they're not trying to buy, and I'm going to use a brand name, so please forgive me, I have nothing against these folks, my wife loves them, but you know, they're trying to buy their Tesla, my wife really wants a Tesla, right? And if they have the model 3, they want the model Y, or if they have the model Y, they want some other model, right? Or if they have the iPhone, they want the next iPhone, and as a the result, that hedonic treadmill that we're on, we can't get off.

So, all of that stress comes back, and what's dependent on our diet is oftentimes this concept of willpower. You see, willpower is a muscle, the more you use it the better it gets. But here's the problem, you stress your body enough, willpower goes out the window. I can tell you, my worst days, where I have the worst foods, are when I'm stressed. I'm human, just like everybody else. And so, what happens there is, as you start to eat badly, which means a diet that has lots of refined carbohydrates, not regular carbohydrates, refined carbohydrates, so that's your white breads, that's your pizzas, right? That's your French fries, and then you start to add other things that really set you off to this bliss point.

So I had the privilege to interview Michael Moss, and I was talking to him about this concept of “bliss point”. And so he talks about salt, sugar, and fat, and he says “you got receptors all over your mouth”, and by the way that's true, “and when you combine salt, sugar, and fat together, it is the most amazing burst, and your brain goes crazy because it doesn't know what to do with all those flavors, and then the high goes down, and you start craving it”. So as you eat these foods, you start gaining weight in all the wrong places. So we talk about visceral fat, or fat around the organs, you start to get insulin resistance, and next thing you know, you start to get sugars.

Now sugars, as they go through the kidneys, what they do is they cause the kidney a lot of stress, they're acidic, they cause damage to the tubules, which are these tubes lining your kidneys, they cause hyperfiltration, what is that? As doctors, you know, we like big words because it makes us sound smart, but hyperfiltration is just your hose sending water through really, really, really fast.

So, as a person gets kidney disease, initially their kidneys, which are about 9 to 10 centimeters in adults, they get larger, and larger, and larger. So you get a guy with kidney disease, you do an ultrasound, and the kidneys are let's say 14 centimeters, and you're like “oh, you know, must be okay because my kidneys are not small”. Well, that's not true, your kidneys are struggling to keep up with all the crap you're putting through them, once they're that large, then they start to shrink, and shrink, and shrink.

Now let's say they go back to normal size, and you see a kidney doctor, and the doctor says “look, you really got to change your lifestyle”, but the patient is like “my kidney size is normal, I don't have any issues, I don't feel anything, so why should I care?” It's because you've already lost so much of your kidneys, in fact you have to lose almost 50% percent of your kidney cells before we ever see a change in blood levels.

So, in other words we use a test called creatinine. Creatinine comes from muscle. So, in order to see the change in creatinine, meaning if the creatinine level goes up, that means the kidneys can't get rid of it. What that means is, the kidney has reached a point where the cells can no longer help each other. So for example, I have 10 cells in my kidney, I lose 5 of them, right? I got 5 cells left, but these cells are my hardest workers, so they do the job of 10 cells, and therefore my creatinine does not change. But guess what? I lost half my kidneys already. So the danger here is, even if your blood tests are okay, and you have extra weight, and you are prediabetic or diabetic, your blood pressure is high, you are already losing your kidney cells. And by the way, we have a million kidney cells roughly in each kidney when we're born, the only thing that happens to them is they die with age. So you all you got is these million cells in each kidney, you got to save them you got to protect them, they're like your million children.

Robby Barbaro, MPH: This is fascinating Dr. Hashmi. So, that simple test that you were describing, that anybody could go and have, is this Creatinine test, but what you're saying is, that somebody could be quite far along, maybe like without the test showing anything. So, you're saying, look, it's these other factors that are already the warning sign, so if you're overweight, or you have prediabetes. At that point you're pretty much saying it's very, very likely you already have significant kidney damage, even with prediabetes.

Sean Hashmi, MD: It's very likely, and the answer is the only way to know is to stick a needle in the kidney and do a biopsy, and that's invasive, and who wants to do that?

Robby Barbaro, MPH: Wow, fascinating.

Sean Hashmi, MD: And think about this stuff, and if you're watching this, this is not meant to scare people, this is not to say “oh, my God! I have kidney disease”, what is meant to do is to inspire you today, at this very moment. What steps can you take to start transforming the rest of your life, right?

It's like, look, we do all sorts of crazy things. We have 401ks, where is your 401k for your health? What are you doing about your investing in your retirement plan that's focused on your health? And what's crazy is, people say “well, what's the point? Everyone dies” of course everyone dies, right? But that's not the point, the point is how you die, are you gonna die suffering the last 20 years of your life, stuck in a bed, us coming around poking you like crazy, not being able to go use the restroom on your own, and be able to have freedom? You see, life is about freedom. If we take that freedom away from you, the value of life, and this is personal to me, the value of life gets taken away.

My goal is to give you quality of life, not quantity. I don't care if you live 120 or 200, I don’t care about that. This is why when these guys on the internet talk about “oh, you're gonna live to 140”, listen, you're not, right? What I want to do is give you every tool possible to live your best life possible. That's the goal here.

Robby Barbaro, MPH: Yeah, okay. So, I love that. Now, one thing I'd like to learn a lot more about here is the ability to heal kidney damage, or reverse kidney disease. We hear that phrase used a lot, like what context, if these cells are dead can they be regenerated, like I know stage one kidney disease is different than stage five, and people reversing. What can be done here?

Sean Hashmi, MD: Yeah, so there's five stages to kidney disease. Stage five is essentially the worst one, that's basically dialysis territory. Stage one is very minimal, stage two is a little bit worse, so forth. There's actual GFR cutoff points but let's keep it simple.

First question is, can you reverse kidney disease? It depends on what kind of damage, so this is a really key point. If you have scarred the kidney, you cannot undo the damage, that's important to understand. If you have injured the kidney, the kidney can heal itself given that you stop beating it up all the

time. So when people have, you know, for example they went on dialysis, and they recovered, and they changed their diet, and they did all this stuff. What they did was they were able to remove the damaging agent, they were able to give the right environment for the kidneys to heal.

So the thing that I tell all my patients is, you should always do this stuff because you may actually have recovery, and even if you don't and you stay the same, that's beautiful, because guess what? If you stay the same, and I don't have to put you on dialysis, I can control everything. So, with kidney disease there is a potential for improvement, it's not guaranteed in everyone because if you have scarring, just like if you look at liver, right? How beautiful is your liver that it can heal itself, but there's a point, you go beyond that point, and guess what? You have liver failure, so when people say “I had liver failure and I came back”, well, you truly had liver injury but you never crossed that threshold where it could not heal itself.

So, this is an important concept, and nobody out there can promise you to go ahead and reverse kidney disease. What they can say is, there's a very good chance that we can halt it, or improve it, and we won't know until we try. But if you're looking at this, and you say “okay, well, that's not as optimistic”, but that's because I'm not a used car salesman, I'm not gonna sell you anything. What I want you to understand is, there is hope. Hope is a beautiful word, and I give every one of my patients hope.

And you know, what's fascinating about this concept of hope is, look at cancer studies, if you ever look at a cancer study, have you noticed that people actually improve in the control arm, right? Placebo effect is 30%. I mean, it's crazy, right? You give one person chemo, you give the other one nothing, and yet the cancer got better, why? Because of hope. So, I believe in hope, and I always talk to them, and make them realize that they can get better, I just can't guarantee it.

Robby Barbaro, MPH: Yeah, I love that. I mean, you took the words out of my

mouth, I tell people that all the time, like “hey, you know, can I reverse my type 2 diabetes, can I completely get off insulin?” Well, I mean, based on where your c-peptide is, how much damage has been done, I'm not sure, but there's only one way to find out, for you to really, really do it to the best of your ability, no regrets, do everything you can to maximize your insulin sensitivity, and let's see what happens. Then, you know, if you look back and say “look, I gave it my best, whatever happens, happens”.

One thing I'm curious about is some of the specific foods that people can eat when... Look, a lot of people listening, are like “well, I have prediabetes, I have type 2 diabetes, I could be one in seven, like I probably have some kidney damage. What could I do, what can I do to put myself in the best shape possible?” How about the concern around foods that are high in potassium? Plant-based foods high in potassium, is that problematic?

Sean Hashmi, MD: Yeah, so you know, this is probably like the number one question that I get asked about, is “well, what about potassium? My doctor said that high potassium is going to kill me”. Yes, so will a car accident, so will lightning striking, and so will the number of other things are going to kill you. The reason potassium is such a big deal is, there is no symptoms to high potassium. The first symptom of high potassium is death, so you got to know this. This is why we take it very seriously. But the second part of it is, we can't make a blanket statement.

So for example, a lot of my kidney patients who are stage five, who are not yet on dialysis, I have them on plant-based diets. And what we do is, we look at their diets, we look at their blood tests, and we say, “okay, your potassium is a little bit high. Now, let me look at your diet, what are some high potassium, maybe you're eating avocados, maybe you're eating bananas, maybe you're eating oranges”. So, I'm not going to cut away all your plant-based foods, I'm going to say maybe instead of having a full banana a day, why don't we have a banana every other day, or maybe half a banana, or something.

So we make modifications based on your blood test. You are unique, you are beautiful, there's no one else like you, so why should I apply a blanket statement to you, when as your doctor I can make it more personal. And since I know there are so many benefits that we've talked about today about a plant-based diet, why should I then limit you for all of those benefits, if all you're worried about is potassium? And what if your potassium is normal, and you're eating a plant-based diet, what if that's the case? Then why the heck am I telling you the same advice I'm telling somebody who has high potassium?

So remember, if you change your diet, you're gonna reach steady state in about five to ten days. What does that mean? You change your diet, in about a week to two weeks, do a simple blood test and let's check your potassium. “Okay Mrs. Smith, your potassium looks good, guess what? The dietary changes you made, I'm very proud of you, awesome job, and we're not gonna change”. How simple is that?

Robby Barbaro, MPH: Very simple, and very easy to understand. And yes, everything is personalized, everybody's different. So, how about protein, what are the best protein sources for people who are living with kidney disease?

Sean Hashmi, MD: So when it comes to protein, it's interesting, you know, we have an obsession with protein, and it's funny because any time somebody mentions the word “weight loss”, they immediately say, “oh, my God! You have to eat protein”, right? That's the only way you're going to lose weight. Unfortunately that's not true, right? If you are looking at just weight loss, there's so many things we can do, but at the end of the day you need a calorie deficit. You don't need a nutrient deficit, there's a difference, right? You're talking about like throwing the baby out with the bath water.

So we eat all this protein, and what kidneys, we know about is, there's been some really elegant randomized controlled studies lasting a year that have shown that plant-based proteins, in a vegetarian diet, is very healthy, and the

actual amount is 0.6 to 0.8 grams per kilogram per day.

So if you look at a lot of bodybuilders out there, and sadly I see a lot of bodybuilders as my patients, but if you look at a lot of bodybuilders out there you'll see that they're consuming as much as 2 grams per pound of body weight per day. It's an enormous amount.

So, animal proteins are the most acidic, they're the worst when it comes to kidney disease. Plant proteins are the best and 0.6 to 0.8 grams per kilogram per day.

Robby Barbaro, MPH: And that is total body weight right there, not like lean mass or anything specific, it's just like a total body weight?

Sean Hashmi, MD: Yeah. So when you're looking at it, you want to go by ideal body weight. So, let's say you're somebody who's 300 pounds, the 0.6 to 0.8 per kilogram per day is going to be extremely high because of all your body fat stores. So, you don't want to include all of those, you want to go by your ideal body weight, and from that you're calculating. And listen, if you want to know how to do this, you just Google it, say “ideal body weight calculator”, it'll look at your height, it'll look at how old, your everything, will tell your ideal body weight with just a couple of numbers, then multiply that number by 0.6, and you have your answer in terms of kilograms.

Robby Barbaro, MPH: Okay, very simple, I like it. All right, now, there's another topic I know you're quite passionate about and have spoken about, which I'm also personally quite passionate about, which is the benefits of walking, of simply walking for improvements in glucose management and overall health. So, can you speak to that topic?

Seas Hashmi: Yes, so this is kind of fun, right? I actually just presented a lecture on this yesterday, and you know, what we were talking about was what is the optimal walking strategy for diabetes. Well, you know, in simple

terms, the optimal strategy for diabetes is the one that you can stick to on a regular basis.

So, the biggest thing, and if you ever look at when people join the military or something like that, and you look at what they do in the military, they will have you do the same basic move over and over. For example, you wake up every day at five, you gotta make your bed, right? And the bed has to be perfect, and you know, your drill sergeant will come and check it. When I was in residency, I remember I was in San Diego, at the navy base over there, and man, I would get these kids coming in, and they were so young, and the drill sergeants were so regimented, and the reason was, they said “if we can make them go from doing stuff over, and over again, to essentially not thinking about it, that's the best”.

So when it comes to walking, there was a really elegant study, it was looking at what's better walking 45 minutes at once, either in the morning or in the afternoon, or walking 15 minutes, waiting 30 minutes after you eat, but 15 minutes after each meal, so after breakfast, after lunch, after dinner, what would give you better glucose control? So it turned out that over a 24-hour period the difference was the same. So it didn't matter, you got good glucose control.

But there's a caveat, and the caveat is, what is for most people their biggest meal of the day? Turns out their biggest meal is dinner, right? So, it's the complete opposite of what the research tells us, which is big breakfast, medium lunch, small dinner, people do the opposite. They have big dinners. So they looked at just 15 minutes of walking after dinner, compared to 45 minutes of walking, either in the morning or the afternoon, and what they found was that just 15 minutes of walking could lower your sugars much better than walking 45 minutes a day.

Now, if you take this home, and you say “well, okay, but isn't 45 minutes better?” Yes, it is. But here's the thing, there's a law of inertia, which means it's

hard to get started. So, when I have patients who don't walk, I tell them, you know, “I want you to work up to 45 minutes. I want you to work up to an hour. But here's what I want you to do, I want you to walk five minutes for me, today, in the morning, afternoon, and evening.” So, it's 15 minutes, but I'm not going to say 15 minutes, I'm just going to say 5 minutes three times a day. That's 15, 15 minutes three times a day. Because, you see, what you're hearing in your mind is that it's a much smaller issue. And so, my patients are able to do this much better because I break it down, and I make it doable.

So, when there's people who are starting out, maybe 45 minutes sounds too long, so break it up. And if you break it up, and you make it into a fun activity, it becomes easier. All my patients that come to see me, I tell them, “Now, when you leave my office, I want you to walk around the hospital one time, and then go to the parking lot”.

You know, it sounds funny, I'm the only guy that I know of, in the history of the organization that I work for, who took out his exam table and I put in an exercise bike, so when they come and see me, they have to sit on this recumbent bike.

Robby Barbaro, MPH: That's amazing, I love it. So when they're having an appointment with you, they are cycling, and talking to you?

Sean Hashmi, MD: Yes!

Robby Barbaro, MPH: That is brilliant!

Sean Hashmi, MD: Yeah, and it works.

Robby Barbaro, MPH: Wow, wow!

Sean Hashmi, MD: And it's small steps, right? So BJ Fogg talks about tiny habits, and I'm such a believer in tiny habits. I want to make everything go

from a choice to automatic. You don't think of, just like you get up in the morning, you put on your clothes, you never walk out naked. So if I can make things automatic for you, I can make you successful in life.

Robby Barbaro, MPH: My mind is going crazy right now, like we need to go and make that a standard. Every time a patient walks in to see their doctor, they have to go on a bike. I cannot get over how cool that is.

Sean Hashmi, MD: And you see, you know, there was no legal issues with it, there was no problems with it, I've never had an injury because it's a recumbent bike, and so as a result of it, my hundred year olds sit on it and they have no problems. Why not?

Robby Barbaro, MPH: Amazing, amazing. Okay, and so correct me if I'm wrong, but let's say somebody was, they were only gonna... They could start just 5 minutes, they couldn't even do the five times three, just 5 minutes, but the most important thing, I think... Again, correct me I'm wrong, but from that research study, is that you want to do that 5 minutes of walking after your biggest meal, whatever it is right now, and that biggest meal should be moved to earlier in the day anyways.

Sean Hashmi, MD: That's absolutely correct, because at the end of the day, it's those huge spikes, right? That you end up getting. Those huge spikes of sugar is what causes all your microvascular damage. You want your skeletal muscles, with the GLUT4 receptors, to be able to suck that sugar in. You don't want your belly to be able to suck that sugar in. So, by giving yourself exercise, and in that study protocol, they waited 30 minutes after eating, and then they went for a walk, and it's amazing, right? You're able to lower those peaks and valleys, and make it much smoother, simply by doing a little bit walk. And remember, that's not a free pass to say well I can eat crap because I'm going to go for a walk.

Robby Barbaro, MPH: Right, yeah. And just to be clear here, these are just

normal walks, it's not like “oh, you have to go briskly, you have to go fast”, it's literally just walk. I mean, and we talk about this a lot at Mastering Diabetes, but there's so many things you can do while you're walking, you can make a phone call, connect with a loved one, like that in and of itself is also beneficial for your health. I mean, we all spend so much time either just texting people, or looking at social media, or looking at emails, if you can just tell yourself “you know what? I'm just gonna walk for five or ten minutes while I'm doing that”, that can literally change your life.

Sean Hashmi, MD: Exactly, right? And it's free. Not a lot of things left in life that are free still.

Robby Barbaro, MPH: This is true, this is true. Okay, Dr. Hashmi, it has been a true pleasure to have you here joining us. The last question I want to ask you before we go is, overall what would you say is the number one, most important thing that people could do right away, walking away from this interview, if they want to improve their kidney health now and into the long term?

Sean Hashmi, MD: You know, the stuff that I do, and I'll give you this enough as four things, and it's very, very simple, but all four are equally important; sleep more, move more, practice gratitude and kindness, and eat mostly whole-foods, plant-based, that’s the SELF Principle.

Robby Barbaro, MPH: Beautiful. Very simple, very straightforward. You do amazing work on your YouTube channel, on your website, so how can people connect with you, and learn, and like Cyrus would like to say, become a super fan?

Sean Hashmi, MD: Well, I would love to have you guys join our YouTube channel, it's youtube.com/SELFPrinciple. Every week I have a new study for you guys that I critically review, and every day we have about a 60 second tip that you can listen to. So if you don't have time, every day there's a pearl for

you to hear about.

And our website is SELFPrinciple.org we are a 501(c)(3) non-profit, and we would love to have you on there. Our mission is simple, we provide educational material for you, completely free of charge, and we create children's scholarships, so any donations we get, we create scholarships around education for children.

You know, I'll tell you, in places like the Philippines, because one of our board members is working over there, and we support those projects there, with just as little as ten dollars you can buy education material books for entire year for one child, ten dollars. So, as you think about this, and you say, you know, we're so blessed that we have access to food and everything, kids are going to school, they don't even have shoes, and we want them to learn about health we, want them to be healthy as they grow up, we want them to have a chance, to be able to have their dreams become reality, what a better way to change the world?

So, the concept is really simple, with SELF Principle I wanted to give back. I've been so blessed in my life to have mentors who have helped me to be who I am today, and if I can do a little bit of that for somebody else, that's me being selfish, and making myself and my inflammatory markers go down.

Robby Barbaro, MPH: It's a win-win for everybody in that situation, called a winfinity situation. So, that's excellent. All right, SELFPrinciple.org, or is it dot com?

Sean Hashmi, MD: Dot org.

Robby Barbaro, MPH: Dot org, SELFPrinciple.org, be a great place to contribute, your work is amazing. Thank you so much for everything you do. I'll never forget hearing your first lecture at the ACLM Conference, and Cyrus and I were both blown away by your work, and your dedication to the

research, and providing evidence-based information, and then also the way you support people and guiding them into doing realistic, doable, sustainable lifestyle changes that actually last, and actually stick, so thank you for everything you do.

Sean Hashmi, MD: Thank you for having me today, really an honor.