Introduction and Speaker Background

– All right, Dr. Katz, what a pleasure to have you join us at the Summit and we have a great collection of people and an honor to have you be part of this.

Thank you so much requested and glad to have the opportunity to interview you today, – Joel, thank you so much pleasure to be with you and very glad to take part.

– All right, let me tell everybody if you don't know doctor character obviously preliminary and special person in the American in the field of lifestyle medicine and nutrition.

Dr. Katz has no multiple, you know, special degrees including besides being a medical doctor and master public health and other fellowships and degrees.

But he's a specialist in internal medicine and preventive medicine, public health lifestyle medicine with particular expertise in nutrition and nutritional medicine and he was the founder and former director of the Yale University Yale Griffin preventive research center where he secured and managed roughly 40 million research funding and he's been the past president of the College of lifestyle Medicine.

This is incredible. And president and founder of the nonprofit True Health Initiative, which I'm also a part of and proud part to support him in that enough founder and CEO of Diet I. D. Ink as well has done incredible work in promoting good health and superior nutrition help thousands of people and doctors across the world utilizing nutrition in their practices. He's received numerous awards for teaching writing and his car contribution to public health.

He was a 2019 James Beard Foundation award nominee and health Journalism and has been widely supported nominee for the US surgeon general and received three honorary doctorates.

And by the way, his most recent book is How to Eat, co authored with Mark Brickman. And he's also written other books as well out of other books as well, you know including um nutrition and clinical practice but books may for the people who were scientists and physicians. Besides that he wrote a book, The Truth about food. He's written numerous other books.

He's had you know, been extensively in the media, he was a columnist for o the Oprah magazine and and an on air contributor on many television shows like the abc News, Good Morning America op EDS in the New York Times and Wall Street Journal.

And he owes multiple U. S. Patents including having been involved in over 200 peer reviewed publications and has authored 19 books to date including editions of the textbook I four mentioned on preventive nutrition and epidemiology.

Well I think I I think I'd better spend some time and you speak instead of telling people about your joining us on this cardiovascular Summit, which is really good.

So why don't we start by just a little bit about your views on whether about heart disease?

Can Heart Disease Be Prevented or Reversed?

Two questions whether it can be prevented and even reversed Number one and number two, is there like a different nutritional approach to preventing and reversing heart disease, then there would be to preventing and reversing cancer and encouraging lifespan?

Or is it or you think it's all could be placed in the same bag. So let me have your view on that. – Alright, so two great questions and again, Joel, Great to be with you and thank you for the very kind intro which sounded very impressive because it wasn't lined up against yours and it would have sounded much less impressive had it been So certainly everybody listening and should know about your luminous career as well. So thank you a pleasure to be with you.

You know, it's interesting we take for granted Now the understanding that cardiovascular disease is overwhelmingly related to lifestyle practices in particular diet not exclusively diet. Obviously tobacco is important.

Physical activity is important. Number of factors that the full panoply of lifestyle influences pertain and those in turn are influenced by our environments, social determinants of health. But we take for granted that heart disease is not an inevitable consequence of aging. But we only first learned that really around the middle of the 20th century where we started to recognize vast differences in the population incidence and prevalence of heart disease around the world?

And some of the credit goes and sell keys who was in the vanguard of those, basically asking that question, Does diet, does lifestyle influence the trajectory of heart disease? And we now know the answer is overwhelmingly yes. And most of our colleagues and cardiovascular medicine acknowledged that minimally 80% of the heart disease we see in the world around us could be eliminated if we optimize diet and lifestyle if we ate food not too much.

Mostly plans didn't smoke or physically active. And I think many experts in cardiovascular medicine would agree that coronary artery disease is all but a radical If we optimize life, yes, there may be genetic predispositions, but those genetic predispositions, you know, existed in homo sapiens before heart disease.

Did it really is lifestyle that converts any genetic vulnerability into atherosclerosis, coronary disease and heart disease and heart attacks. And that doesn't need to happen.

So there's this shocking, almost divide between where we are now epidemiologically, where coronary disease is pretty much a midlife rite of passage in the United States and where we could be, where it almost never happens. And you know, in terms of diet, what we'll focus our discussion on diet nutrition.

And again, Michael pollen's 57 words come readily to mind eat food. Not too much, mostly plants overwhelming evidence that diets made up exclusively or predominantly of whole foods. Plant based are the remedy here.

And and there are a range of such diets from exclusively plant based diets to Mediterranean flexitarian so forth and, you know, one place to look for inspiration is the world's blue zones, five populations where people don't get heart disease, don't get chronic disease live routinely. To be 100.

The diets vary across these five populations in very different parts of the world, but they all adhere to that same thing. Real food. Whole food and overwhelmingly plant based. And so my perspective in answer to your second question, do we need to eat differently? To defend our hearts versus to defend against cancer versus to preserve cognitive function. And you know, we could go through that list of all the things we want.

My answer is no. And you know, as you know, I've reviewed this extensively both in the peer reviewed literature and in multiple editions of nutrition clinical practice, but how odd it would be if we had to eat one way to have a healthy liver and in another way to have a healthy heart or healthy kidneys and we have to pick our favorite vital organ and support that one.

It wouldn't really make any sense. So, I think what you can argue about debate parts is would you be more extreme, Would would you be more emphatic about the requirements of a diet when you're treating established disease than you would be to prevent that same disease?

Right? You have more options the earlier you are in the progression of any pathology. So you might say, you know, you have to work a little bit harder once you have established a coronary disease to reverse it than you would to prevent it.

Why Prevention Hasn't Taken Hold

And I think there's a legitimate debate there, but fundamentally the same basic dietary pattern that is conducive to preventing heart disease is good for controlling and containing and reversing heart disease is good for preventing diabetes or better managing diabetes is good for preventing obesity is good for preventing diet related cancers is good for staving off dementia to the extent that we can leverage lifestyle to do that and on and on it goes, I think there's a fundamental way the kind of animal we are is adapted to eat and when we honor that and and stay in that balance, it's it's conducive to the health and vitality of every organ system and the whole that is greater than the sum of its parts. So I don't think we need to eat differently to defend against heart disease and cancer. I think we just eat for vitality and longevity and all the rest comes out in the wash. – Thank you.

And you know, I know you've been an advocate of like of spreading to the public, knew better nutritional practices and getting rid of ultra processed foods and having people eat healthier. So, but what I wanted to ask you, there's what have been, what do you think this is the major obstacles, Why is heart disease still the number one leading cause of deaths for people over the age of 60 heart attacks and strokes and leading cause of death was why haven't more the public embraced this idea that we could save all these millions of lives and then why has it taken so long. And even though we've infiltrated the medical profession and the explosion, the American college of lifestyle medicine is very relevant but still why hasn't it permeated medical profession with more depth and more fullness than to really save more lives? What do you think some of the obstacles been in the public and in the medical field? – Great questions, Joel. And again, I want to highlight everybody, you know, your career long contributions to the space.

It's always very kind when you have someone conducting an interview who is an expert in the field you're in and they, you know, they invite you to comment.

But I know you can answer all these questions just as well as I can. So I appreciate the opportunity for the dialogue. So, you know, I think we all know the expression familiarity breeds contempt and um you know, maybe we're not always contemptuous, but at a minimum it breeds complacency and it's a really interesting time to have this discussion because you know, we're finally starting to emerge from the covid pandemic and we can just oppose the covid pandemic which was new and scary with the chronic disease pandemic which is old and neglect. You know, we've been mired in obesity, diabetes, heart disease, true pandemics and frankly exacting a vastly greater toll even than covid year in year out and we've let all that hide and plain sight very early in the covid pandemic, I wrote about the fact that maybe two pandemics are better than one because if we were all just vulnerable to SARS cov two and there was nothing we could do about it.

There'd be nothing we could do about it. But what we know about this virus is it's much much worse if you're already sick, it's much worse if you have hypertension or diabetes or heart disease or obesity and these are things we know how to fix.

So let's fix that because that is the first and perhaps even the best way to immunize ourselves against the current pandemic. And it's really interesting to reflect on the fact that the acute new exotic pandemic attracted everybody's attention and alarm.

But the year in year out, slow motion pandemic of chronic disease is largely overlooked. And I think that is a case of too much familiarity and too much complacency.

We kind of let it recede into the background and become part of what life is like, as I said before, we accept that heart disease is a midlife right of passage in the United States. It's just the way it is.

You expect people at midlife to have angioplasty or coronary bypass. And you know, – Taking blood pressure medications and taking certain blood pressure medications and stuff, right? – Absolutely. Polly pharmacies are given.

You know, again revascularization is very common but right multiple meds for Disl epidemiology and hypertension and potentially type two diabetes pretty much a given an and it shouldn't be it doesn't need to be, but we're so used

to it, we kind of accept it is. So I think our culture, the full expanse of our culture is effectively whispering in our ears every hour of every day, year in and year out. Things are okay the way they are.

And I think we are essentially lulled into the belief that it's true. So that's why we as a society are tolerant of this. And then in medicine, I think it's just really hard to change the paradigm of a disease care system to a healthcare system. We speak all the time about a health care system, but the reality is we have a disease care system that by and large, the clinical community is primed to wait for bad stuff and then react to it.

There's very very little attention to prevention, there is very little attention to health promotion, there's very little attention to lifestyle and of course the burgeoning of lifestyle and and the incredible, really exponential growth of the American College of lifestyle medicine and sister organizations all around the world.

Speaks to the pent up respect of people entering the health professions for the promise of prevention and health promotion so that there is a desire there.

But it it truly is one of those paradigm shifts where you have to say, okay, what we say about health care and what we do about disease care are really quite distinct and if we're go going to bridge that divide, we need to build new models.

We need to build new financial models, for example, that that how do we reward hospitals for not filling hospital beds? They're actually perverse incentives in the system.

Diet Quality as a Vital Sign

I've had very interesting conversations with hospital administrators who say, you know, we, we we really do care about health, but on the other hand, we make our money by treating disease and you know, we're not doing very well as business people if we put ourselves out of business.

So, you know, we almost have to think about an evolutionary process where what we currently call healthcare institutions which are in fact disease care institutions start to diversify their portfolio. One of the analogies I thought of here, Joel is, you know, like the big oil companies which obviously resist what needs to happen to preserve this beautiful planet of ours and to fight the effects of climate change and environmental degradation. But if they are going to catch this inevitable way, they're gonna have to diversify their portfolios and start to invest in solar and wind and sustainable energy sources and little by little, they ultimately could become leaders in a green economy where they are the premier vendors of solar and wind and so forth. The same thing could happen in the so called health care system where little by little hospitals start investing under capitated systems and value based systems, health systems start investing in genuine health promotion, disease prevention and promotion of good nutrition.

For example, I have a fantasy that ultimately what we call health care systems actually own gyms and fitness facilities and spas and restaurants that are ubiquitous that make really nutritious food economical, convenient, accessible to everybody delicious.

It's doable, but it's a revolution. So currently the house of medicine is really mostly about treating disease and you know, we are asking a lot to convert bad into a system that is all about promoting health.

The public deserves that. But it's a big switch. And the final thing I'd say say is the places around the world where health is most reliably supported and I've already mentioned the blue zones are places where a lot of the action is cultural rather than clinical. You know, I think about the writing of Dan, but I think about the blue zones, you know, I can't recall a single instance where the centenarians in the blue zones say my bounty of years in life and my bounty of life in years is because my doctors terrific or you know, because I get such great clinical counseling, they're not spending time with doctors or hospitals.

They basically live in cultures where eating well, being active, not smoking, getting enough sleep, not being stressed out and having strong social connections are normal, where essentially lifestyle is the medicine, but the spoon that makes the medicine go down is cultural, not clinical and we do need to think about that too.

This is not just a clinical enterprise. We really need a culture wide reform so that health is everywhere we go and is accessible to all. – I like that. So what you're saying is that we can't just try to change the way doctors treat people who are treating people at the end stage of their life.

We have to get to like the school systems in the educational process and they it has to be all every entry to society educationally and culturally has to be impacted.

– Absolutely. And it may even be unfair to ask, you know, doctors or health professionals to to be the preferential remedy because maybe the rarified ability we have and you know, you and I have both been trained to take care of patients? That what makes us special is the fact we can't treat disease. We can intervene when things are badly broken and not just anybody can do that. Whereas supporting health and its origins by promoting healthy lifestyle is an enterprise that should follow us everywhere, where we learn and work and play and pray and where we gather with our families and Exactly.

It really needs to be culture wide. – Alright, we're getting back to this idea of dietary quality which you've been involved with in So how do you define and measure dietary quality and then how do you kind of like ratchet it up when a person needs more enhancement and dietary quality to to reverse disease when they're when they're going to be compliant and want to take it to the next level. – Well first of all so diet quality can be objectively measured with a number of scales, but probably the single most robust one is something called the healthy eating index and it aggregate measures of food intake and nutrient level intake.

And what makes it the most robust measure of objectively measured diet quality is a very strong correlation with two things that matter. A whole lot mortality risk and the risk of chronic disease. So as you move up and and and there are different versions of the healthy eating index. The most current is the called the H.

E. I healthy eating index 2015. So the H. I. 2015 correlates robustly with all cause mortality and total chronic disease risk. As your scores move up, you're less likely to die prematurely of anything and you're less likely to get any major chronic disease, diabetes, heart disease, cancer stroke dementia, etcetera. And as your scores move down the converse, that's pretty compelling. So I don't think there's much debate about our ability to measure diet quality objectively And robustly.

And then the issue becomes what do we do with that capability. And as you know I founded a company diet idea, I actually left academic medicine after 30 years because of this invention and the promise I think it it holds.

So I run this company full time now. We have invented, developed patented, validated and widely deployed the first fundamental advancing dietary assessment about 50 years. So we can we can measure diet quality and everything else about dietary and taken anybody in about 60 seconds.

It's easy. It's effortless. It's fun. And you know, basically the mission there is that diet quality should be a vital sign. Uh die diet quality measured objectively is the single leading predictor variable for premature death and chronic disease in the United States today. This is something that shakes out of the global burden of disease study. It's true in many countries around the world.

Well, you know, how can you not measure something that important? Because if you don't measure it, there's very little capability to manage it. If you don't know what anybody's diet quality is, there's no goal to treat, to compare that, for example, to blood pressure, blood pressure really matters.

But we're able to do something about that because it's measured in all of us. It's a vital sign. So we're making the case that diet quality should be a vital sign. And then your question about what do you do?

How do you trade up? Well, you know, we've already discussed the fact that an optimal diet, which I would argue is mostly made up of vegetables, fruits, whole grains, beans, lentils, nuts, seeds, and plain water for thirst and frankly, if you get that right, you can't go too far wrong.

I have said it before. Exactly. But you know I mean I think that's that's true. No matter what, you know it's true to

prevent all diseases. It's true to promote health overall.

But we also can be more granular than that. And say, you know, we have studies showing the specific benefit society and reduction managing hypertension. We have studies showing the particular benefits of of certain elements of food like soluble fiber for lowering LDL cholesterol.

And on and on it goes and and we have major studies showing that food really can be the most powerful kind of medicine. And consider one of my all time favorites the diabetes prevention program. $174 million clinical trial sponsored by the N.

I. D. D. K. Division of the NIH.

Food Systems, Planetary Health, and Ultra-Processed Foods

Several 1000 people on the brink of diabetes randomly assigned to usual care, drug treatment or lifestyle and you know, stop the presses the drug use.

Metformin prevented diabetes 30% of the time in high risk individuals impressive. So one out of three people who would have developed diabetes didn't because we used the best drug we had. But lifestyle and and basically that was simply a moderate improvement in both diet and physical activity and a moderate loss of weight was twice as good. 58% reduction in incident diabetes.

Two out of three people who would have developed diabetes didn't because of the lifestyle intervention. So overwhelmingly clear that frankly, even only moderate improvement in the prevailing diet quality aligned with a particular objective like preventing diabetes or regressing heart disease is incredibly effective.

But I think it all begins by saying we should know what diet is in everybody. Where are you relative to, where you ought to be, where should you be and that should doesn't have to be universal. First of all, it can line up against specific objectives. And I think even more more importantly, because, you know, really the fundamentals of healthy eating are the fundamentals of healthy eating, but more importantly, it should allow for personalization.

The simple fact is we're multicultural society and Americans come from all over the world. So, you know, there are Mexican Americans and Chinese Americans and south Asians living in America and you know, all of us bring our dietary heritage with us.

And the simple fact is all of those different, culturally tailored diets can be optimized in similar ways while still respecting the heritage. I think that's really important. So that's what we're on a mission to do really to make diet of vital sign. We have a tool to do that, that makes it possible. We think it should happen.

You know, I mean, there was a time before, the invention of blood pressure cuff, when people knew that blood pressure was important, but it was never being measured and never being managed. That's kind of where we are with diet.

Now, we want to see that transition to a time when everybody knows their diet quality can compare what it is to what it ought to be and is empowered to make up that difference.

And it can be directed towards specific health objectives as we've been discussing. But I think it just as importantly, can be directed toward specific dietary preferences rooted in heritage and culture and ethnicity, so that everybody has the opportunity to love the food that loves them and their health back. – Do you think that I'm like, organic pesticides, GMO or soil quality, you know, plays a role in this disease prevention reversal, you know? – Well, so that I think there are several answers, you know, in general. Yes, I think that's all important.

The other thing I would say, and, you know, I suspect you've undergone a similar transition as a physician. I spent most of my career just talking about human health over the last decade or more, I've converted my messaging to be a frequent and pretty fierce advocate for planetary health.

And yes, I think it's my job because from my point of view, we will be healthy, vital people on a sustainably healthy vital planet, or we won't be healthy vital people at all. Right.

I mean, people who don't have a habitable planet to call home don't tend to do very well. And all of those things, you just – Healthy food and you can't get healthy food can't be healthy.

– Exactly. Right, so all of those things, you just mentioned how we produce our food organic versus not what we're doing with genetic modification, how we're utilizing the tools of that particular method, what we're doing with pesticides, herbicides to support massive implications for the health plan it and yes, lots of evidence that there are direct implications for human health as well, much of that in the realm of endocrine disruptors.

Many of these chemicals that we introduce the food supplies seem to be endocrine disruptors, meaning they affect how our hormones function. But you know, it's hard to get the very direct evidence for or you know, for organic produce versus conventionally grown produce in human health effects for a couple of reasons first, you know, it's it's it's really hard to produce completely pure anything on this planet because the contaminations reverberate worldwide in particular with water. Right?

So the things we've done to the planet that have introduced contaminants introduced contaminants into groundwater, which gets everywhere. So we, you know, when when you're doing research, you try to compare A and B.

And make sure they are alike in all ways, but one and completely different in the one way you want to study. So if you're comparing organic versus conventional produce, you'd want the organic produce to have zero exposure to any contaminants and the conventional produce to be fully exposed.

Well, you know, we don't live on a planet that even allows for that. And then, you know that the other issue is most people in modern societies eat far too little fruits and vegetables and the net benefit of eating more, whether they're grown conventionally or organically, is so great that you kind of overwhelms the difference between organic and conventional.

So, my answer to your question is yes. I think all that's important. And those of us who are privilege to have resources, who have those choices to make should vote every time we shop, we should support organic farming, we should support methods that support the soil. We should support methods that address planetary health. And I think it simply is good sense to assume that the introduction of chemicals that are not a native part part of the food that were adapted to eat are probably not a good idea for us.

And we have more and more evidence that that the introduction of a wide variety of food chemicals, some of which we've been inclined to think are innocuous damage the microbiome.

And we have more and more evidence about the incredible importance of the microbiome to every aspect of health. So, I think there's less and less reason for doubt that we should favor the purest possible methods of, of food production as a contributor to the overall quality of the foods we eat to support our health and that of the planet? – Thank you for that.

But can you give me a little more specific about changes in dietary and or personal habits that would best support planetary health, besides moving more organically, what is the other major things people should be aware of since bringing it up.

– Sure, Yeah. And so there's a lot of work on this topic. I think probably most listeners here will be familiar with the Eat Lancet Report, which looked at planetary boundaries.

There's a group at Oxford University MaRCOS Spring One in particular that publishes consistently on this topic. Looking at the overlap of impacts of various foods on human health and planetary health. Let's start at the top.

The single most important thing we can do is eat massively less beef and animal foods and beef in particular. I'm

talking about the global population.

I mean, those of us who already don't eat beef can't eat any less. But anybody who eats beef at all eat less, It's the single most important thing we can do there.

When you compare the environmental impact of beef production to any other food, you need a logarithmic scale because the impact of beef is so much better across almost everything that matters. And there are multiple domains of environmental impact. So there's obviously greenhouse gas emissions, beef is off the charts.

There is water utilization, beef production is off the charts. There's nitrogen used to grow the crops to feed the animals that people then eat, there's land use. So the single thing that most consistently populates the literature on planetary health is eat less meat.

And if you're willing to eat no meat at all. But we need we need a dramatic reduction in total meat intake by the human animal. And then, you know, reductions in other animal foods, which by and large have white larger environmental footprints and plant foods that, that whole axis, I think is number one shift from animal foods to plant foods.

That that's what modern human populations need to do. And we are fortunate really that the needs of human health and the needs of planetary health aligned beautifully there, because plant predominant diets are consistently better for humans. And it turns out it's the single most important thing we could do to achieve a sustainable food supply.

Hope, Closing Thoughts, and Resources

And then I think the next thing you mentioned this just a little bit ago, Joel, ultra processed foods, the work of our friend Carlos Montero and colleagues who developed a formal classification called nova to actually give us a gradient, how we understand the changes between whole pure food and ultra processed food and everything in between those steps of processing involve factories.

And sorry about that. You know, basically, uh, steps that that involved modern technologies have come at an environmental cost to. One example, I like very much Marion, Nestle wrote about this in her book, soda politics.

Just compare a glass of water with a glass of soda or better yet, soda in its plastic bottle, which is how you're likely to get it. It can take up to 600 liters of water to populate all the various factory steps to produce the coke or Pepsi and the plastic bottle out of which you're drinking it.

So, you know, every time you have one liter of that, it's as if you took 599 liters of perfectly good water in a thirsty world and dumped it down the drain.

So those would be the two key axes, you know, we ought to think about moving from animal food to plant food and from ultra processed junk, where food ought to be to food direct from nature. And if we do those two things, massive reduction in the environmental footprint of diet, – Great, well, I could spend the whole day without asking tons of questions, but I know we got to wrap this up. So let's just finish with your the one message you want to leave everybody with. And then of course, if there's any way people you want to go to a place to reach or look at your work and where they should go. But yeah, so let's finish it up and with your closing remarks. – Well, first of all, thank you, really a pleasure to see you, pleasure to talk with you and I appreciate this opportunity.

You know, I think if I'm gonna have a closing message, it would be hope. And I say that from the heart because I, you know, I find myself sort of desperately seeking it these days.

These have been really fraught times, right? I mean our planet's in peril. We've gone through a pandemic, our political system has been in turmoil, right? I think it's important as we talk about food, to highlight the promise of it, we can love food that loves us back, we can eliminate 80% or more chronic disease. We can add years to lives and life, two years and all the very things we do to optimize our own health and the health of people we love with food as the very best of medicine redound to the well being of the planet, to the prevention for the climate change, the

preservation of biodiversity, to saving fragile ecosystems like the amazon rainforest, the primary driver of deforestation.

There is the global demand for beef. So we have incredible power as individuals to contribute to positive change for ourselves. Those we love and the world each time we lift a fork to our mouths. So there, you know, there's really hoping that we are empowered to take meaningful action. So I encourage everybody to do that.

And then in terms of me and my work, my primary website, Davidkatzmd.com portal to everything I do. We talked about diet i. D website. There is dietid.com If you visit those two, you'll find your way to all the others. – That was terrific.

And I of course, wish that your voice and message could be trumpeted all over the world with with even more with a big, bigger megaphone than you have right now.

– Well, you're helping with that. I appreciated very much. – Thank you. All right, well, thanks again, David and take care best. And thanks for your participation here.

– Thank you, Joel.