

Discovering Blue Zones In America – Dan Buettner – #1001

Dave Asprey:

Guys, this is Dan Buettner, the Blue Zones guy.

Dave:

Dan has written a really influential book by going around and saying, "Well, where are there pockets of long-lived people? And what do they do? What can we learn from that?" And that approach is cool. It's about time we have a conversation, so thank you, thank you, thank you for coming on the show.

Dan Buettner:

I'm delighted.

Dan:

I write for National Geographic. It's one of the hats I wear. But for the Blue Zone project, it wasn't so much about me, I led a very big team of people. The first team of experts we used were demographers, and we literally parsed through worldwide census data to identify demographically confirmed areas where people are living measurably longer. It wasn't just the hearsay of Vilcabamba or Hunza Valley of Pakistan.

Before we even began to guess at what these people are doing, we confirmed their ages with a pre-expedition. We found five of these Blue Zones. And then I brought another wave of experts. They're mostly epidemiologists, anthropologists, medical researchers. And the theory was because only about 20% of how long we live as a population in the developed world is dictated by genes, the other 80% is something else, based on that assumption, then we went to all five of these areas. And I've been doing it now for 20 years to find the common denominators or the correlates, the things that seem to be happening in all five Blue Zones, and from that distill some insights on how we might be able to live longer. And the value proposition I have, Dave, is not that... I don't pretend people could live to 120. I think we're ways from that. Theoretically, I think we can. But the average maximum life expectancy of the human species at the current level of science in the developed world is about 95.

Dave:

What does average max mean? What does that mean for 95?

Dan:

That means if we did everything and you're an average person, we should be able to make it to 95. The average person could make it to 95. But remember, you have outliers in one extreme who will run marathons and take all the right vitamins and be dead at 50 by some weird cancer, and then you have people who can drink a fifth of liquor and smoke cigarettes and they make it to 100. But those are a tiny fraction. But most of us, within two standard deviations of the mean, the capacity of our human machine right now is 95; the potential. And I know your work pushes those boundaries and theoretically I think it's possible, but we're not seeing it yet.

Dave:

I absolutely hear what you're saying. Yeah, today, if you just do some of the stuff and you live an average life, yeah, that's there. And I have zero evidence that 180, which is my minimum acceptable

goal, is the right number. All I did is I looked at... When I look at our outliers, we've got probably 120 as the oldest living human. And by the way, is that a real number? Do you believe that one?

Dan:

Yeah. Jeanne Calment, yes I do. I know there's some controversy that she may have been assuming her daughter's identity. She made it to 122 and five months and marked the outer limit. But you look at the number of super centenarians, the people who make 110 or... It's not growing as a proportion of the population, so we fall off [inaudible 00:06:40].

Dave:

It's somewhere on 110 or 120. And all I did is I said, "I'm going to do 50% better than our best outlier today and use a whole bunch of technology and every other learning that we have and see what happens." And there's a great chance that I'll die trying, but I'm going to have fun doing it and hopefully learn a few things. I didn't see a lot of downside for that kind of a goal.

Dan:

And there isn't. And by the way, you can make it. And if you look at life expectancy for American men, 1900 was 40, and we're now up to about 75, which is almost a doubling. If we double it, again, your 180 is definitely within reach. But it's probably by a technology or intervention. We may be lurching towards it, but we don't know what it is yet.

The big reason we're living so much longer now is because of penicillin and vaccines. Because what used to kill us before about 1930 was infectious disease. You'd step on a nail and you'd be dead in two weeks. Most people died in World War I died of infection, not of bullet wounds. And penicillin came along and all of a sudden, boom, we had a way to deal with a lot of the infectious diseases. And then antibiotics. You couldn't have foreseen that somebody would discover orange mold and the connection between that and increase in our immunity. Likewise, there'll probably be some genetic intervention, some CRISPR overture, which may add that.

But my work, Dave, mostly focuses on, all right, these are real people living right now who are living about 10 years longer than we are, biologically younger at every decade, probably a decade younger than their chronological age. And they're suffering 1/5th the rate of heart disease, 1/10th rate of diabetes, in one case about 1/10th rate of dementia.

I'm saying, okay, here are these real people, what are they doing to achieve a healthy age, 95, occasionally 100. And then if the intervention comes along in our lifetime, you'll be ready for it, your body. Because the first interventions will probably just slow aging, not reverse it, so you want to be in as best shape you can right now.

Dave:

And that's a Ray Kurzweil approach. Ray's perspective is that singularity is here, you just have to last long enough. And there's a bunch of people on that a train. You're going to upload yourself to the internet and live forever that way. And do you think that's a kind of life extension? Are you into that?

Dan:

Not really

Dave:

Going to freeze your head when you die?

Dan:

I think I'll do that, actually.

Dave:

You are? Are you on the list? Is that a necklace for the head freezers? The cryogenics.

Dan:

This is a necklace for a coin I found in Jerusalem.

Dave:

Oh, cool.

Dan:

Well, I think the best chance that you can be reincarnated is to freeze yourself. Much better chance than, I think, cremation or having the worms take you over. That's a fun way to do it. I have several friends who are doing that right now. I feel like I'm far enough away from death that I haven't really started making arrangements yet. But who knows?

Dave:

That is so interesting. It's a rare treat to be able to talk with another radical, long-term life thinker and to be able to go deep on stuff like that.

Dan:

I wrote a cover story for National Geographic also on happiness in a book called The Blue Zones of Happiness where I took a data-based approach to what drives happiness. And most of what brings true happiness... what people think bring true happiness is misguided or just plain wrong.

But one of the happy coincidences of the Blue Zones, longest of women in are in Okinawa, longest of men are in the highlands of Sardinia, the island of Icaria, Greece off the coast of Turkey, the Nicoya Peninsula of Costa Rica, and among the Seventh Day Adventist. Those places are in the top quintile of the happiest places. Unlike these Silicon Valley billionaires who are super busy and spending all their money on these heroic interventions and metformin and testosterone... None of which, by the way have, proven to stop, slow, or reverse aging; and there's some controversy. The methods that... Or the insights that have harvested from Blue Zones are not only getting these people an extra 10 years, but they're also happy. And so in the same way that you're taking this 180 year approach to... or afterlife approach that also makes you happier right now, we share that, I guess, parallel philosophy.

Dave:

We do. And happiness matters so much that most people, if you were to say, "Do you want 90 happy years or 100 shitty years?" They're going to say, "I want 90 happy years." It's almost the opposite of the Amazon selling strategy; it's about quality over quantity. But if you can get both, you'd like both. But buying a whole bunch of cheap crap, it's not a very good strategy for the environment or for your house or for anything else. And that's why I think there's a rebellion against cheap, plastic, disposable crap, you

don't want a cheap, plastic, disposable life either. And so I love it that you're studying what they're doing. Go ahead.

Dan:

Well, I'm just saying that longevity and happiness right now are so interlaced, you can't pull the two apart, really. The same things that are driving longevity also drive happiness: getting enough sleep, having a sense of purpose, being socially connected, and having low stress. These things, they go hand in hand. In fact, we know that if you can manage your life to be in the top quintile of the highest levels of subjective wellbeing or life satisfaction, it's worth about six years of life expectancy over being in that bottom six. One of the best longevity hacks is happiness. And there are lots of things we know that you can do that stack your deck in favor of happiness.

Dave:

In fact, one of the best definitions of hell you could have is to say an unhappy, very long life. Right?

Dan:

Yeah.

Dave:

Why would you want that? You make a great point about happiness. Have you ever done work with Dean Ornish, the super low back guy?

Dan:

Yeah. He's a good friend of mine.

Dave:

When he did his original work, he said, "Well guys, we're going to do lifestyle and meditation interventions and a diet," but then he talks about the diet as having caused the changes, even though it looks like lifestyle, meditation, and other studies had the same changes he was describing to the diet. He had the mix of those two so intermingled that, statistically, it was hard to prove that eating a very high starch, high sugar, low-fat diet was causative for that. In your happiness books or happiness research, how do you break apart the value of community, strong social structure, getting enough sleep from all the other variables like the sunshine angle of sun, minerals in the water. It could be anything. This is a conundrum for all anti-aging research.

Dan:

You look for correlations. The way that the happiness research, which is done worldwide, largely by Gallup but also Latino barometer and the Euro barometer, they ask people to imagine themselves on a scale of one to 10, with 10 being their best imaginable life and one being their worst. And then they ask them 75 other questions about how often they socialize and the level of their health, their BMI, their religion, their income level, their sex, their age, et cetera, et cetera. And then, through regression analysis, which I'm sure you're familiar with, you can find out exactly what things most strongly correlate with people reporting a very high level of happiness. And when you do that at a worldwide level, you get a pretty strong correlation.

And I don't try to draw a causative relationship between these two. I like to phrase it in stacking the deck. Something that's very highly correlated with high life satisfaction, if you do it, there's no downside to it, but it puts more aces in your life's Blackjack deck in that you know too will...

And some of those things we know that work are having five good friends you can count on on a bad day, the quality of your social interactions and connections, the number one driver by a margin of how happy you are. When you say to yourself, "Well, I want to be happy, should I go out and be read a bunch of positive psychology books? Or should I take a Tony Robbins class? Or should I work my ass off and make another \$100,000 this year?" Knowing that none of those will significantly add to your long term happiness starts to drive you towards maybe things that do like being generous and remembering your friend's birthday and really nurturing friendships. That's the stuff that really works. I can't sell you anything. And marketers don't necessarily seize that because there's not a lot of money in it, but we know, statistically speaking, it's one of the strongest things you can do.

Dave:

Right. Just having those connections. And it's funny, when you're looking at... I don't know if isolated pockets is the right word, but in your research, you came across intact communities that had defined boundaries, so you could find where the supercentenarians are. These very long-lived-

Dan:

Well, I want to stop you there because I get in trouble with the... We don't assert there are more supercentenarians there. We found areas that has the lowest rate of middle-aged mortality. In other words, they're hitting that age of the age 95 without chronic disease, 1/5th the rate of chronic disease that we suffer. And necessarily because more people are hitting that 95, there's also more people bleeding into their hundreds. I'm not saying that these people have greater physical capacity or greater genes than us, they're living a longer time because they're avoiding the diseases that foreshorten our lives.

Dave:

Now, some of the... In fact, almost everything that I've heard about you from the research that I've done just over the years has been that you were targeting people that lived a long time. From the beginning, the target was just to find a higher health standard in middle age, but it wasn't to find people who were living longer. That's just sensationalism from the press?

Dan:

Well, there are places that live... These people live 10 years longer, but it's not an obsession with centenarians. And some-

Dave:

Got it. That wasn't the target, then.

Dan:

That wasn't the target. But not coincidentally, in Okinawa, you have a population of... It's especially the women, not the men in Okinawa, but for women over 60, that cohort, you'll find about 30 times more of them reach age 100 than a similar cohort in the United States. And in Sardinia, they have about 10 times more male centenarians per 1,000 people... or per 100,000 than you would expect to see in a similar

population in the United States. But that's just because they're not dying younger... they're not prematurely dying of heart disease, diabetes, certain types of cancer, and dementia.

Dave:

Okay. That makes a lot of sense. What do we look at from these big populations? For our listeners, what did you find? What are these people doing to live longer? You don't think it's genetic because you have multiple pockets around the world, so is it 50% diet, 50% happiness? Is it 70%/30%? What's the secret formula?

Dan:

Well, I'll talk about diet in a minute. And I have this new book, the Blue Zone American Kitchen, which I'd like to talk about, but-

Dave:

Oh yeah, in fact I've got... I should grab my copy. It's right over there. I unpacked it. I found it.

Dan:

Yeah. Okay, bottom line, in none of these Blue Zones do people try to live a long time. None of them are pursuing diets, there's not gyms, there's not exercise programs, they're not calling 800 numbers to buy supplements, they just live their lives. But the big insight is they don't pursue health and longevity, but rather it ensues. Their micro decisions on a day to day, hour to hour basis are marginally better. They're nudged into moving every 20 minutes or so because they live in environments where every time they go to work or a friend's house or out to eat... At occasion is a walk. They have gardens out back like I know you do. I was watching your great kale ornament video today. Their houses aren't full of mechanical conveniences, so they're still doing housework by hand and kitchen work by hand and yard work by hand.

The option to be lonely isn't there because if you're not showing up to church or the local party, somebody's pounding on your door. The cheapest, most accessible and most socially accepted food over time, and by the way, the most delicious, has been whole food, plant-based. I'll unpack the diet a little bit more. But that's mostly what we've been eating.

And purpose comes with mother's milk. There's vocabulary for purpose. You were talking about the corrosive nature of stress. For a lot of Americans, it comes from waking up every morning and not knowing what you're going to do with your life or if there's somebody going to take care of you. This isn't an issue in Blue Zone, is because you have a strong sense of purpose and you're surrounded by a family that's going to take care of you until you're 105. And so these are the things that I assert we can learn from and we ought to be paying attention to, not only if you know have a family and you want your family to thrive, but also if you're a government and you're interested in lowering healthcare costs and raising the general wellbeing of the people who voted you into office.

Dave:

And as I mentioned before we started rolling, I just moved to Austin. I've been in this house for six days so my laptop stand is a cardboard box, my backdrop is a white wall, but I do have your book.

Dan:

Oh, thank you.

Dave:

Which is the Blue Zones American Kitchen, which is cool. And just as a fellow author, congrats. It's always giving birth to write a new book. There's just so much that goes into it, which is really cool. 100 recipes to live to 100. Tell me your dietary philosophy. You mentioned whole foods, plant-based. I want you to define that a little bit more.

Dan:

Yeah. And then I'll connect it to the book you're holding there. As part of a National Geographic project, we did a meta-analysis. If you want to know what a centenarian ate to live to be 100, you can't just say, "What have you been eating?" Because, A-

Dave:

Yeah. they don't even know.

Dan:

They don't remember. If I asked you what you ate a week ago Tuesday for lunch, you might not be able to tell me. In order to ascertain that, we found 155 dietary surveys done in all five Blue Zones over the past 85 years, and then we did a meta-analysis, or a worldwide averaging.

If you look at their traditional diets, they're eating mostly whole food, plant-based, about 65% complex carbohydrates, not simple carbohydrates. And the five pillars of every Blue Zone diet are whole grains, greens, tubers like sweet potatoes, nuts, and then beans. And if you're eating a cup of beans a day, that's associated with about four extra years of life expectancy. They did eat meat, but only about five times per month on average.

My philosophy begins and stops with, all right, here are the manifestly longest of people, here's the way they've been eating. This might be something you want to pay attention to. And I don't get involved with of the micronutrients or trying to deconstruct the nutrients in each of those general food categories, but I do, over 20 years of seeing these people and eating with them, I'm of the strong opinion that's directionally correct as a way to eat.

Dave:

I ended up writing my big diet book a dozen years ago, and I found out that legumes, beans were causative, and so were nightshade vegetables, were causative problems for me. And I wrote about lectins. And then later Dr. [Steven] Gundry, who you've probably have met, because he worked in Loma Linda with one of the Blue Zones, but he also came out, like me, saying, "I think beans, even though the fiber is good in them, the anti-nutrients are so strong that they're causing problems," in the population he worked with. And so I'm genuinely scratching my head going, "All right Dan, I hear what you're saying, but when I try and do it, it destroys my quality of life." What could be going on there?

Dan:

Well, two things, you're an N of one. And secondly, I don't know if you know cook beans and then rinse them, you get rid of the vast majority of lectins, if you eat kidney beans and crunch them. I don't necessarily buy the lectin argument. But really, I'll just stop and end with it is indisputable that the longest lived populations are eating lots of beans throughout their lives and producing much better health outcomes than we are in America. I cannot tell you if the beans for sure, I can't tell you if there's something else in their diet that's explaining their longevity, but I can tell you a major feature of every

diet of longevity, including by the way Loma Linda... If Gundry looked at the Adventist health study, which followed 103,000 Adventists for 30 years, he would see a ton of beans in their diet, so I'm not sure how he discerned that beans were somehow bad for the people living in Loma Linda. But I don't like drawing a causative. I can't say beans cause a long life, but I can say beyond a shadow of a doubt, people are living a long time, have eaten a lot of beans throughout their lives.

Dave:

What does a whole foods, plant-based diet mean? How do I know if it's a whole food? Because I know that I take the shell off my walnut, for instance. That's already processed to a certain point. Do I eat the skin of the edamame, or do I just eat the inside? What does whole food mean? The way you use it.

Dan:

Well, it's a single ingredient food. I guess that's a good place to start. If you read the label and there's only one ingredient. There's nuances there, but... It grows and it's taken out of the ground or it's plucked off a tree or a plant, but it avoids the... It doesn't have added sugar, I think is a really important component to it. It doesn't have ingredients you can't pronounce, it doesn't have emulsifiers, or to your point, it's not ground down too much. If you over grind even whole wheat, it's not as healthy as if you grind it less. Your smoothie is healthier if you don't over blend it and it's still a little bit chunky because your glycemic load is...

I took a lesson from the Sardinian Blue Zone; I start my day every day with a real really chunky minestrone. And it's very, very low in glycemic, so it absorbs very slowly. Your microbiome loves it because there's about 40 different species of fiber in there, you have about 1,000 species of bacteria. They like a variation of fiber. Full of vitamins full of soluble, soluble fiber and the chunky stuff. I don't get a spike if I started my day with cereal, I don't get bogged down like I would if I ate bacon and eggs for breakfast. That's how I start my day. And it's all whole foods, just happen to be cooked together. And it's, delicious by the way.

Dave:

It sounds delicious. I'm just thinking that if I ate that, I would have a food baby. I would have our arthritis for a week because of the nightshades. And I am nightshade sensitive.

Dan:

[inaudible 00:31:48].

Dave:

And about 1/4 of people appear to be. 28% of rheumatoid arthritis is caused by the nightshade family. And I'd be farting all the time. And I'd be radically hungry after I ate that. I would just be like, my body wants me to eat sugar right now to help deal with the low of inflammation it just got.

Dan:

I think the pursuit of finding what works for you and your considerable contribution to that body work is very important. By no means what I say, "Eat this way because it's worked for centenarians around the world." It has to work for you.

But I will say when it comes to microbiome, usually the best way... If you're feeding your microbiome, the hundred trillion or so bacteria in your gut meat, cheese and eggs, a certain type of bacteria blooms,

and it dominates. If they've been fed rib eye every day, and then all of a sudden you eat a cup of beans, yeah, you might get farty. But the way to train it is to start with a teaspoon or a tablespoon of beans day one, and then two tablespoons, and then work your way up to a cup. But-

Dave:

Yeah. You'll get less farty that way. That one didn't stop the joint issues for me, but it did stop the farty issues. I love refried beans. I used to eat a lot when I was younger, but I don't because of just dialing in the personal and precision. Thank you for sharing that tidbit.

You put something else in your book I wanted to compliment you on this is a page that says regional and contemporary American. You actually drove through the country on a road trip. And you talk about Appalachian food, coastal food, Persian, Japanese. It's pretty cool that you're teasing out what's happening in the real world that's still based on eating real food that's single ingredient, which I like a lot about your approach there. It is a way more natural approach than the Pop-Tarts diet.

Dan:

Well, if I could just say the idea behind that Blue Zone American kitchen, well, from what I discerned from the longest of populations, I did come up with a dietary pattern, and then I worked with an NYU researcher to find subcultures in America that followed this same dietary pattern. And we found it among the African, Asian, Latin, and Native Americans living around 1900, 1920.

And then I found during the pandemic, while other people were locking down, I took a National Geographic photographer in a Sprinter van, and we went from Maine to Miami to Maui, and then up to Minnesota. And we found 55, I would say, heritage chefs who either are bringing back this traditional way of eating. It's usually immigrants, by the way, fusing the way they did things in the old country and new country influences, and then who could recreate these.

And an important thing to remember, Dave, is we evolved as a species eating this kind of food. By the way, in Blue Zones, they're not vegan except for some Adventists. They love meat. And by the way, if they're given all the meat they want, they'll eat it all the time. In fact, we're seeing this in Sardinia, and not coincidentally. And they're also eating a lot more processed food. And almost every Blue Zone is disappearing as their dietary pattern starts to mimic the standard American diet. What I think we can both agree on is the standard American diet, the way we're eating right now, is killing us probably.

I wrote an essay in the front of that book, *Blue Zone American Kitchen*, which will also appear in January's issue of *National Geographic*, but according to the CDC, about 680,000 Americans will die this year prematurely because of the way we eat. And it doesn't have to be like that. Way more people had died eating the standard American diet than have died in World War I, World War II, the Korean War, and Vietnam War combined, yet we don't spend nearly as much effort and time trying to fix that as we do with the Veterans Administration. And of course people give their life for our country, they need to be recognized, I'm just saying is we ought to be focusing on this other big problem killing more of us.

Dave:

Completely agree. Look at our reaction over the last couple years to something that is a tiny drop in the bucket compared to what's happening every year from preventable problems driven by nutrition. Some stuff has come out saying that in the US, you can predict that there's going to be extreme longevity when there's an absence of vital registration. In other words, if they didn't have birth certificates, there's magically a lot more older people.

Dan:

Yes, I know that.

Dave:

Yeah, I'm sure you've come across the research. I'm going to explain it just a little bit for listeners. And just like tell me what's going on with this, because I think you're a smart guy, I think your heart's in the right place, I think you're doing the right thing. And it looks like from this paper, and there's a couple others, they're saying poverty, old age poverty, material deprivation, low income, high crime, remote region of birth, worse health in the general population, and other things like that predicted remarkable longevity. You're saying you're not looking at remarkable longevity, but what these guys are finding is that the areas, a lot of the areas that you've looked at, they have weird distributions of people where it looks like some people might have faked their birth certificates to avoid inheritance taxes. You must have thought about this, you must have read the papers. Tell me your take on all this.

Dan:

Yeah. No, you're absolutely right. When there's not birth certificates, there's always age exaggeration. I write for National Geographic where the fact checkers occupy the corner office. And before we even published one word, we spent three years in every one of the Blue Zones checking birth certificates. And not only checking the birth certificates in many cases, verifying it by looking at the baptismal record. And a demographer named [\(Dr.\) Michel Poulin](#) did that work. We have a very firm base on all Blue Zones that... Very good birth records. In fact, better birth records in Costa Rica, for example, than the United States where all make... They make it very easy in Costa Rica; when you're born you're given a sequential number, so it's kind of impossible to lie about your age because you're born, you're given an ID number that is... The guy was born five minutes before you gets a lower number and the guy born five minutes after you gets a higher number, so you can't all of a sudden say... What was the other problem or whatever?

Dave:

The-

Dan:

Okay, right, right. Poverty. Two things. In every one of the Blue Zones, they're deteriorating. The way people are living today was not the way they were living in the year 2000 even, or even 2010. And my work was mostly synthesizing studies that have been done in these Blue Zones up to about the year 2000 because then things changed.

And so if you look at Okinawa of today, Okinawa in the year 2000 had the longest lived population in the history of the world. That was according to the World Health Organization; published paper. In 2020, they have the highest rates of obesity and diabetes, and actually the lowest health of any pre-fixture in Japan. If a demographer or if one of these people writing the paper goes to Okinawa today and looks at them, of course they're going to draw... What the hell? These Blue Zones are a bunch of BS. But we captured a population that lived longer than any other human and then captured what was done in a human lifetime in those populations. That's where most of my work is done. In Sardinia and Costa Rica, the Blue Zones persist. As they do among the Seventh Day Adventist.

Dave:

You're saying that you did adequate work to validate the birth certificates of the people you were looking at. And just having known your work from afar and your reputation amongst people who know

you personally, because the number of people are doing longevity work is not that large, real hardcore longevity work, you have a stellar reputation. Your motivations are exactly in the right place, and I greatly respect that. And so, I'm willing to believe you, where you say, "Okay, we validated this to the extent possible."

There's a whole bunch of people who have gone back and all this. And there's actually a whole group of... It's a tribe that behaves like the people who do the editing on Wikipedia. It's a group of insular arguing to see who's right sort of things who will go in and try and validate stuff like that. You went down the path with your populations, and you came up with these results. And I'm mystified because I didn't come up with these results when I look at it mechanistically, but I'm still intrigued by your work and your perspective on it, so thanks for answering the question. How long are you going to live?

Dan:

Well, if you look at the trends that life expectancy since about 1840 is going up two years per decade. And I think I do all the right things. I get enough physical activity, I'm socially active, I don't have a lot of stress in my life, I don't smoke. I believe a whole food, plant-based diet with very little animal products is the way to go. I eat that way. If you look at the life tables for me, my life expectancy should be about 92. But I'm in my 60s right now, and if I get that extra two years per decade that we see historically, I should hit 100.

Dave:

100.

Dan:

Yeah. And I may be around for some heroic intervention that you're closer to than I am that may just come along and extend my life another, I don't know, 100 years.

Dave:

Do you run anti-aging or age measurement lab tests? Do you know your true age? Have you had stem cells? Any of the-

Dan:

No, I don't believe in that. I think there's more danger in those things than there are [inaudible 00:44:16], actually, especially stem cells. Mike Roizen just wrote a great book called The Great Age Reboot. Cleveland Clinic. And he wrote a great book about those interventions and really outlines the dangers of them as well as the promise. There's some danger with those interventions.

Dave:

It's really interesting because some of the things that are strongest in favor of a very low meat diet comes down to a couple amino acids. And you don't get into the mechanistics, but I do. And if you're eating animal protein, specifically methionine, which is an amino acid that's more common in animal protein, and tryptophan, these things will raise a compound called mTOR. And the theory goes that if you have more of those, then mTOR, which causes growth in tissues, would be higher, and therefore your cancer risk would be higher. And that's one of the reasons intermittent fasting seems to be important. And I think you also find that fasting practice is common in a lot of your Blue Zones as well.

Dan:

It's not a practice, it was an involuntary.

Dave:

Okay. Forced intermittent fasting.

Dan:

Yeah. They did real fasting. Every one of the Blue Zones I'd say suffered a fast. But you're right, fasting was part of their history.

Dave:

it's this interesting puzzle. It's like a big Rubik's cube. I don't know if we're ever going to solve it all for everyone because there's probably individual stuff here. There are some people where, "Dave, I tried it, I don't feel good." And there are many other people who say, "Yes, I tried it and I feel good." It's not going to be the same for everyone. But the principles of fewer toxins, don't eat ultra-processed foods, I think we're in very firm agreement on that one, Dan.

Dan:

Yes, I violently agree. Processed food is at the core, and probably sugar, refined sugars. I think those two things are the No. 1 and No. 2 scoundrels in our diet. And the other stuffs is fine tuning it.

Dave:

What about seed oils, like canola and soy and corn? Are those better than sugar or worse than sugar in terms of your-

Dan:

It's hard to say, but they're not good. I only use olive oil.

Dave:

Yep. One of the things that blew me away as I was going through your recipes in here, you had a crust... Of course it had gluten in it that I'm not a fan of. You had a crust that was made out of tallow.

Dan:

I think you probably found the only animal product in there. And I try to be journalistically honest about these things. This was a food archeologist recreating a Thanksgiving... Well, an early 17th century meal. And they didn't have coconut oil there, that's why I put coconut oil as the alternative. People in Blue Zones did eat meat, they did eat cheese, they did eat some butter. Well, not really butter, not cows, more sheep. And I guess the-

Dave:

It's because sheep and goat are cheaper. Those are more poverty animals than cows.

Dan:

Yeah. Yeah. Almost no cow is in any Blue Zones. But my main work, Dave, I get hired by insurance companies. I have a company of 200 people, and we go into cities and we help change the environment rather than changing people's behaviors. And when you're dealing with talking to whole populations of people, it's hard to be nuanced; you have to be very simple. And for the Blue Zone brand, I've made the decision that we only promote whole food, plant based. We know people are going to get meat in their everyday life, but when eating a Blue Zone's way, we put forth the whole food, plant base knowing that people might slip some cheese or some butter or some meat in these recipes. But the base recipes taste maniacally delicious, and they're 100% whole food, plant-based. They take less than a half hour to make. And they are the core of the longevity diets from around the world.

Dave:

If the populations in these areas ate as much meat as they could get, they just didn't have very much meat, and they were eating at five times a month on average and probably some months during the end of the season when you're going to harvest an animal or something, they ate more than because they didn't-

Dan:

Correct.

Dave:

It was done seasonally. With all of that stuff, are you a little concerned that that which would've been a precious food to them is just missing from a whole food, plant-based diet?

Dan:

Well, their meat consumption has quintupled. And at the same time, their chronic disease rates have skyrocketed and their life expectancy is plummeted. Now, again, that's just a correlation. And also, what's also entered their diet is a lot more processed foods.

Dave:

They got jugs of corn oil at the same time they got more meat. That's always the confounding factor.

Dan:

That's correct, that is correct. What we do know that the standard American diet, which includes about 140 pounds of meat per person per year and about... I'm sorry, 220 pounds. 140 pounds of sugar per person per year and these inflammatory oils. We know it's killing us. We know it's driving about two trillion. It's hard to know which of those components are doing the most damage.

If you look at the Adventist health study, again, followed 103,000 Americans for 30 years, you see pretty clearly the people who are either 100% plant-based or eating some fish, the pescatarians, they're living the longest with the lowest rates of disease. And they also have the healthiest weight. They weigh about 20 pounds less. There's probably some epidemiology study that shows that people eat a lot of meat are healthier. I'm not aware of it.

Your specialty, and you're a lot better at it than me, is knowing these micronutrients and how they interact with our genes and our bodies. And I don't know that science as well as I know the population science, so I generally speak in here's what these populations do. I think we both agree that it's smarter

to try different foods that work best for us but pay attention from both camps of research and draw your own conclusions, 'cause if your life.

Dave:

You're totally right, it is your life. And I've run the gamut 'cause I very much have tried all these different diets to find what worked. And I would've rather not written a diet book except I just realized I thought I, and I still believe that I found some gaps in our understandings that we could take advantage of around certain buttons that get pushed for certain people.

And I'm always tormented because I'll see one paper that says one thing and I'll see another paper that says the opposite thing. And so many people listening are so confused right now. And the end of the day is you can tease out on some papers if it's funded by a animal rights terrorist group, then maybe they didn't have health, they had manipulation of your behavior as part of their agenda. Or if it's funded by the American Meat and Dairy Association, assuming there is such a thing.

Dan:

Yeah, the Cattlemen's Association.

Dave:

Right. And so you can look at funding. And then at the end of the day you can read through the papers if you have the knowledge and understanding to do that. And what I just found was for me to survive and even to thrive, I had to do that. And I was willing to do it. And I still see confounding papers, and then I look for, okay, was there a mistake? And then sometimes there's pockets of populations. There's so much we don't know.

The fear of making a mistake nutritionally keeps a lot of people from stepping up. And what I want to say here is you look like they're reasonably healthy. You haven't run the anti-aging panels where we can compare numbers. And even if we did, you're an N of one, I'm an N of one. We're small studies. But everyone listening is a small study. It's totally fine. Go eat a whole bunch of beans and see how it works.

Dan:

And use a good recipe because I don't want to turn you off to them.

Dave:

That's a fair point. Make sure that you don't just toss them in a pan, boil them, and eat them. And the same thing with rice. You rinse it, you steam it. There's nothing wrong with preparing foods to make them more nutrient available and less toxic for us. And that's a core part of human behavior forever. Knowing how to do that well for beans would be really in your interests.

I really appreciate your time, Dan. It was fantastic finally connecting with you. Thank you for the work you're doing and to tease out what works for people. Have a wonderful day. And guys, Blue Zones American Kitchen is his new book.

Dan:

Thank you very much, David. I look forward to meeting you in Austin.

Dave:

Yes.

Dan:

And if you come to Miami, mi casa es tu casa.

Dave:

Ah, thank you. I'll come on over. As long as you don't mind a little meat in the corner of your fridge, we'll be good.

Dan:

All right, we'll cordon off of section. Really a joy to meet you. And thank you for the lively conversation.

Dave:

All right, thanks my brother.

Dan:

All right.