

# #1 Ornish audio

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## SPEAKERS

Lucia Tiffany, Dr. Ornish

### Lucia Tiffany 00:04

Welcome to today's presentation on the experts secrets to reversing diabetes. I am so glad that you're here with us with our special guest today. Dr. Dean Ornish. Thank you for joining us Dr. Ornish, so glad to have you. Happy to be back. You know many of you are well acquainted with Dr. Ornish and his work. He is a pioneer in the area of lifestyle medicine. And as founder and president of the nonprofit Preventive Medicine Research Institute and Clinical Professor of Medicine at UC San Francisco and UC San Diego. He received his MD from the Baylor College of Medicine and was a clinical fellow in medicine at Harvard Medical School, he completed his internship and residency at Massachusetts General Hospital. You know, he's been involved for over 43 years in directing clinical research that demonstrated for the first time this was real groundbreaking stuff, that comprehensive lifestyle changes can begin to reverse even severe coronary heart disease without drugs or surgery. So his research show that comprehensive lifestyle changes that affect gene expression, all these things that are so important, for those of us that maybe have inherited a genetic tendency to diabetes, he's shown how lifestyle can have a great impact on these things. Of course, he's the author of many different bestsellers, and has been published in many peer-reviewed journals featured in most of the major media outlets. So we're just so happy that he's here today to share with us what he sees as something you can take away today to show that it is important and very effective, to do certain kinds of lifestyle interventions for the reversal of diabetes and other chronic diseases. So welcome, so glad to have you with us.

### Dr. Ornish 01:54

Thank you, I appreciate it.

### Lucia Tiffany 01:57

So share with us, what have you seen as the biggest advances in terms of science and research that show us that connection between lifestyle and medicine?

### Dr. Ornish 02:09

Well, for the last 44 years, I've directed a series of randomised trials and clinical studies showing for the first time what a powerful difference, simple changes in diet and lifestyle can make in reversing the most common chronic and often costly chronic diseases. The lifestyle intervention was the same for all of these different studies, it was a whole foods plant-based diet, you know, fruits, vegetables, whole grains, legumes, soy products, as they come in nature, low in fat, low in sugar, and refined carbs, moderate exercise, things like walking for half an hour a day and some stretching and resistance training, meditation and other stress management techniques and love and support, to reduce it down to its essence to eat well move more stress less and love more. And the more diseases we study, the more scientific evidence we have to show what a powerful difference the simple changes can make, and how quickly people can feel better, and often reduce or get off of medications under their doctor's supervision that they were told that they'd have to take forever. As you know, when most people get put on medications to control say type two diabetes and they say how long do I have to take these the doctor usually says forever. It's kind of like if you imagine a doctor busily mopping up the floor around a sink that's overflowing and someone says How long do I have to mop up the floor? They say, well, forever. It's like, Well, why don't we turn off the faucet? Why don't we treat the cause? And the cause to a much larger degree than I had once realized, are these simple lifestyle changes. And you know, I'm continually impressed by how our bodies often have a remarkable capacity to begin healing, and much more quickly than we had once realized when we can treat the cause. And so over the last 40 years, we found the same lifestyle changes could reverse. We were the first to show that they could reverse even severe heart disease without drugs or surgery, type two diabetes, high blood pressure, high cholesterol, early stage prostate cancer and a randomized trial we did a collaboration with the heads of Neurology at Sloan Kettering in New York and UCSF in San Francisco. We did a study with Craig Venter who was the first to decode the human genome and found that when you change your diet lifestyle, it actually changes the expression of your genes. And in fact, turning on the good genes turning off the bad genes. We did a study with Dr. Elizabeth Blackburn, the Nobel laureate, who discovered telomeres, which are the ends of our chromosomes that regulate cellular aging, and as we as they replicate over time as our as our telomeres get shorter, our lives get shorter the risk of premature death from pretty much everything goes up proportionately to that. We found for the first time that we could actually lengthen telomeres. And when we published this in the Lancet, they called it reversing aging at a cellular level. So my new book, which I co authored with my wife and collaborator for over 20 years, Anne Ornish just came out called undo it and in paperback, it was a national bestseller in hardcover, which I was grateful for and we put fourth, his new unifying theory in there. And the book starts with one of my favorite quotes, which is from Albert Einstein that says, "If you can't explain it simply, you don't understand it well enough." So we tried to reduce it down to his essence, you know, he well move more stress less love more. And it helps explain why you often find that people have what are called comorbidities, they'll have type two diabetes, but they'll often often be overweight or have high blood pressure, high cholesterol, heart disease, and so on. Because, you know, although I was trained, like most doctors to view all of these different conditions as being different diseases, different diagnoses and different treatments, we found over the decades that the same lifestyle changes could stop or reverse or prevent all of them. And I was wondering, Well, why is that and I realized that in this unifying theory, that they really all share the same underlying biological mechanisms, things like chronic

inflammation, oxidative stress changes in the microbiome and telomeres and gene expression, overstimulation of the sympathetic nervous system, changes in immune function, and so on. And these one of these mechanisms, in turn, is directly influenced by what we eat, how we respond to stress how much exercise we got, and how much love and support we have. So it radically simplifies what we sound like. It's one diet for type two diabetes, and different for heart disease, a different word for prostate cancer, or whatever, it's really the same for all of them. Because in many respects, they have more in common than they have different and in a way, they're the same disease just manifesting in different forms.

**Lucia Tiffany** 06:31

That is so interesting. And you know, I would love to know, how did you kind of get started with work in this field? What made you interested in this?

**Dr. Ornish** 06:40

Well, I went to medical school at Baylor College of Medicine in Houston, and did my core surgery rotation with Michael DeBakey, the heart surgeon who essentially invented bypass surgery, and we've cut people open we bypass or clogged arteries, we tell them they were cured. And more often than not, they go home and do all the things that had caused the problem in the first place. You know, eat junk foods, smoke cigarettes, not manage stress, and exercise. And all too often, their new bypasses would clog up and then we cut them up again, sometimes two or three times. In fact, he was a bit of a tyrant, you know that? You know, he was very old school, it was like, What are you saying, I'd say I'm struggling my third year he goes, it's gonna be so much harder to bust you out of here, now that you've made it this far. In fact, he called me actually, just about four years ago at the age of 99. Wow. And he said, Hey, Dean, this is Mike DeBakey. I hadn't heard from him for literally decades, but I recognize got a very distinctive Louisiana accent. And I said, "hello to what do I owe this honor?" He said, "Well, you know, those ideas used to have that I gave you use to give you such a hard time about. I said, Oh, yeah, I remember them really well". He goes, "that's what's kept me alive all these years. I, you know, I'm 99 years old, I'm about to die. And I just wanted you to know that I started doing all these things, my wife got interested. And that's why I'm here. I just thought you'd like to know that." So you know, if you live long enough, you never know.

**Lucia Tiffany** 07:55

But anyway, great story. Love that.

**Dr. Ornish** 07:57

I got really, you know, interested in like, reading the we went to the government of these places that used to have called libraries with these things called journals and right, but it's reading voraciously that in dogs and cats and pigs and rabbits and monkeys that could cause them to get heart disease if they put them on unhealthy diet and put them under stress and didn't let them exercise and so on. And you can reverse it if you change those I said, so why should people be any different? But everybody said, no, no, it's impossible, the best you can do is slow down the rate at which you get worse. And that's all you can do. So one of the nice things about being still a medical student is you're not fully indoctrinated. So, I took off a year and did the first

of what turned out to be a series of studies showing that in fact, you could actually reverse heart disease. And many of the people often had type two diabetes and their diabetes got better as well. And we published that in you know, the leading peer-reviewed medical journals over time. And over time, you know, about 11 years ago, Medicare created a new benefit category to cover my reversing heart disease program. We've been training with a company called Sharecare hospitals and clinics and physician groups around the country and it's been working we're getting bigger changes in lifestyle, better clinical outcomes, bigger cost savings, better adherence than anyone's ever shown. But just a few months ago, they agreed to cover my reversing heart disease program when it's done virtually so now, if you're listening or watching this, you can live anywhere in the country and get in we can beam it into your home via zoom and Medicare will pay for it and many of the other insurance companies will do that as well. That was really a game changer because you don't have to, you know, we can reach... reduce health disparities and health inequities and reach people wherever they live. If anyone's interested in learning more about the the Medicare covered reversing heart disease program just go to my name Ornish.com And then also, US News and World Report recently announced they have a panel of experts that rates different diets every year, they also rate medical schools and universities and so on. And for the 11th year since 2011. They We created what they call the Ornish Diet is number one for heart health. So I really appreciate all about them.

**Lucia Tiffany** 10:05

That's great. That's great. So I'm very interested in some of the research that you did on how lifestyle impacts our genes. You know, genes are something we're born with. And a lot of people feel like you can't do anything about what you're born with. So how does lifestyle impact this?

**Dr. Ornish** 10:27

A lot of people feel that way. And even, I've been working with President, former President Bill Clinton, since 1993. He's talked about this publicly. But 14 years ago, when his bypass was clogged up, his cardiologist, one of his cardiologists, held a press conference on CNN and set out his diet and lifestyle, nothing to do with it, it was all in his genes. And having worked with him for so many years, I knew it had everything to do with it. So I contacted him and he began, he went on this program, and he's been doing it for 14 years. He's talked about it publicly. And he's getting better. And I think whatever your politics when a former president makes these kinds of changes, especially when he was known for, you know, making, you know, many trips to McDonald's, and so on, I think that's, that's a great example, for everyone. And, and again, what's good for your heart is also good for your brain, as well as all these other conditions. We're now in the midst of doing the first randomized trial in collaboration with the the heads of Neurology at Harvard and Mass General. And the Brigham's Women's Hospital and renown in Reno and University of California, San Diego, as well as in the Bay Area. To see whether these same lifestyle changes may stop or reverse the progression of men and women who have early Alzheimer's disease, you know, what's good for your heart is good for your brain. And the same mechanisms that affect heart disease and these other conditions like diabetes and so on, also affect Alzheimer's. And I think we're at a place with Alzheimer's, very reminiscent of where we were with heart disease 44 years ago. In other words, the same biological mechanisms are in play, less intensive lifestyle interventions back then, could slow the rate at which your arteries

got clogged, but they would still get worse, they just got worse more slowly, we found more intensive interventions as we discuss could actually reverse at the was improved blood flow after a month, the heart began to pump blood better after a month, after a year, even severely clogged arteries became measurably less clogged and even more reversal after five years and after one year, whereas the randomized control groups got worse and worse over time. By analogy, less intensive lifestyle interventions have been shown to slow the rate of progression into dementia and Alzheimer's. My theory is that more intensive ones might stop or reverse it, you know, ounce of prevention, pound of cure, if you will. And so we're in the midst of doing this study, and I'm, it's too early to comment on him. And I'm cautiously optimistic that it might work. If anyone's interested in joining it, we're just rolling our last group of patients, again, go to [ornish.com](http://ornish.com). It's all free to the people in the study. We provide 21 meals a week for 40 weeks for you and your caregiver during the course of the study. And I'm really excited about this study, my mom had Alzheimer's, I saw how tragic it was watching her brilliant mind decay, I have one of the genes for it. And unlike other diseases, nothing really works even stopped the progression of Alzheimer's, you can slow it down a little bit for a while. But that's about it. So if we can stop or reverse it, I think that potentially could give millions of people new hope and new choices.

**Lucia Tiffany 13:21**

Absolutely. And you know, it's interesting that researchers are starting to refer to Alzheimer's, sometimes as a diabetes type three, because of its tie that it seems to have with insulin resistance and some of those same mechanisms that drive the metabolic mess of diabetes. How is it that in your study, you're addressing these things you mentioned you provide meals, so what is the the program that people are implementing?

**Dr. Ornish 13:53**

I think disordered blood sugar and insulin regulation and so on is part of Alzheimer's, but it's only one of many mechanisms, people like to reduce things down to just one thing, but it's many things. It's all the things we talked about. It's changes in blood sugar, changes in inflammation, and oxidative stress and, and changes in immune function in the microbiome, the 100 trillion cells and our gods and so on. But each one of these mechanisms is directly influenced by what we eat, how we respond to stress, how much exercise we get, and how much love and support we enjoy. Medicare is covering the program, they're providing it for 72 hours, which we divided into twice a week for four hours at a time for nine weeks. And we've been doing this with Sharecare. Okay, and now we can do it virtually anywhere in the country, which is great, but 96% of the people who start the program finish all 72 hours and they get an hour of exercise an hour of meditation and yoga, who would have thought Medicare be paying for that in our support group and in our group meal with the lecture now and we're using the same intervention for the Alzheimer study as well. Okay, so the idea that small changes are easy and big changes are hard turns out really not to be the case, it turns out that only, you know, less than half of people prescribed statins to lower their cholesterol are taking them just you know, four to six months later, even though they're proven benefit when people have heart disease, and usually, you know, the insurance company or someone else pays for it. And that's just taking a pill once a day. But we're asking people to make much bigger changes. And people say, well, that's crazy.

I, if we can't be people take their pill, how are they going to make big changes like that. But the reason is, is that the the pill doesn't make you feel better, but the lifestyle changes do. And again, because there's so there, the biological mechanisms are so dynamic, you can get better quickly and get worse quickly. When people make these changes, they generally feel so much better so quickly, or their blood sugar improves so quickly, that they say things like, "you know, I like eating junk food, but not that much, because my quality of life is so much better". And it's especially dramatic. And people have heart disease because the engine or the chest pain tends to go away. And for someone who can't, you know, walk across the street without getting chest pain, or make love of their spouse or play with their kids or go back to work without getting chest pain, within a few weeks, they can do all those things. Then they say it kind of changes the equation from preventing something bad from happening years down the road, like reducing the likelihood of a heart attack or stroke, the fear of dying, if you will, what really motivates people is the joy of living that, you know, Wow, I feel so much better. I can do all these things I couldn't do before. What I gain is so much more than what I give up and quickly, that even if I knew I wouldn't live a day longer, I would still do this because the quality of my life is so much better. There's a wonderful film that came out about a couple years ago that James Cameron, the legendary filmmaker, did Avatar and Terminator and so on. And Luisa Hajo said, were they to show again, how dynamic these changes are. They they took lead athletes and they put them on a plant based diet, a healthy plant-based diet like what I what I recommend. And they found that they became their their athletic performance increased dramatically, they were able to become the mixed martial artists national champion, the Tennessee Titans won their first Super Bowl Championship and most of their players went on a plant-based diet. Dotsie Bausch got an Olympic medal in cycling, one of the most challenging sports at almost 40 years old and so on. But there's there's one scene in there where they gave a single meat based meal to three guys in their mid 20s. And, you know, guys get erections at night when they sleep. It's just a normal function. And so they measured what how many erections they got and how hard they were the night after they had a single meat-based meal, they repeated the following night with a single plant-based meal, I think was a Beyond Meat meal. And they found that all three guys had 3% to 5%, more frequent erections and 10 to 15% harder erections after one plant-based meal compared to a meat-based meal, probably the film crew went on a plant-based diet after they shot this. And it's a big concrete, you know, 40% of guys in their 40s have issues with erectile dysfunction and 50% of guys in their 50s, and so on. So true. And but it's not just your heart, your your heart gets more blood, your sexual organs get more blood flow, your brain is more blood flow. And it just shows again, how powerful and dynamic these mechanisms are. And you know, a lot of people are worried about COVID-19, especially with the new Omicron variant and how infectious it is that even if you're triple vaccinated, it doesn't prevent it in, you know, 20% of the cases, there's a lot of breakthrough infections. You know, obviously, everyone's gonna wear masks and so on. But even so

#### **Dr. Ornish 18:28**

20% of people get infected, even if they have, you know, their booster shots and so on. So they're asking "what can I do to enhance my immune function?" And it turns out that a couple of studies really, I thought were pretty amazing, one showed that they looked at 3000 frontline health care workers, these are people who take care of COVID patients every day, so they're

exposed to it all the time. And those that follow a diet like I recommend a healthy plant-based diet, were 73% less likely to develop moderate to severe illness. Those on an Atkins paleo diet were 400% more likely to get it, you know, the same. And then there was another study that Walter Willett did at Harvard, with almost 600,000 people. And again, they found those on a healthy plant-based diet, were 41% less likely to get moderate to severe disease compared to those on a typical American diet. So again, when you just and then finally, if you add to that the fact that more global warming is caused by livestock consumption and all forms of transportation combined. You know, my son is an accomplished musician, and we went to one of his favorite indie bands is called WOLFPACK. And a couple years ago, we went to one of their concerts at the Greek theater University California, Berkeley, they're probably 15 or 20,000 people, they're mostly in their 20s. And the frontman of the band is is a vegan and he heard I was there. So I went backstage and said hi to him. He said, you know, during my conference, I usually spend 15 minutes or so talking about my a plant based diet is why I'm on and what Good. But you know, and I talk about your work. And since you're here, why don't you go out and talk about your work? And I said, what you want me to go out and have your concert and talk about eating plant-based? And he goes, Yeah, so. So I did. And for 15 minutes, I was cool to my, my son, it didn't last very long. And I didn't talk to a group of 20 year olds about heart disease and diabetes and things like that most people don't really care about that they think they're immortal. But I talked about, you know, how it can often feel overwhelming, like what can I do as one person to make a difference in the world, you know, when there's so many horrible issues, global warming, and, you know, feeding the hungry and deforestation of the Amazon and all these, you know, sentient beings that are suffering and getting killed. And I said, Well, you know, something that's primal is what you put in your mouth every day, can make a difference in all of these different arenas, you know that, again, more global warming is caused by livestock consumption than all forms of transportation combined, it takes 14 times more resources to make a pound of meat-based protein than plant-based protein, you know, if they were if enough people ate a plant based diet, no need to go hungry, I was on the board of directors of the San Francisco Food Bank A few years ago, and I learned that one in five kids in the Bay Area, which is so affluent, goes to bed hungry every night. That's just pitiful, we can do better than that, you know, nine 13 billion animals get killed every year after living horrible lives, you know, you know, these little pins that aren't necessary because we can eat healthy without that. And it doesn't mean you have to go on a vegan diet. But just having a meatless Monday or taking one meal and, and forgoing meat can make a difference. And I just find that if it's if it's meaningful, then it's sustainable, and people are much more likely to do that. So in my undo book, we really talk about, you know, the kind of the radical simplicity of this, but also, that you know, what's good for you is good for the planet, what's personally sustainable, is globally sustainable.

**Lucia Tiffany 21:52**

And, you know, that brings out the fact that there are so many different angles, so many reasons. To choose a plant-based diet, not only does it help us reverse disease, which might be what brought people to the summit, but it has an impact on our minds, on our relationships, on the ecology, on the entire world. And each one of us can contribute to that by our own choices. I really appreciate the way that you have shared this. What would you say to someone who's thinking about making a change? Maybe they want to go more plant-based... Where should

they start? What do you recommend? What do you see as maybe some of the key factors for reaping some of these wonderful benefits we've been talking about?

**Dr. Ornish 22:41**

Well, it depends on what your goals are, if you're trying to reverse disease, that's really the pound of cure, if you will, that's more prescriptive. We found that it takes is hard to reverse a chronic disease. That's why we were the first to show that in so many cases it's because most people didn't go far enough. So the Undo book is about undoing or reversing disease. You know, my favorite key on the keyboard has always been the undo button. And now we have one in our in our lives in a sense, yeah, there's a lot to do that. So, you know, in but again, if you make big changes all at once, you're gonna feel so much better so quickly that that makes it sustainable. The other is the more small gradual change approach. But if you only make small, gradual changes, you know, you may not really make changes big enough to feel that much better, but you're still not be able to eat or do everything you want. So what matters most if you're otherwise healthy, let's say you you know, you have a little bit high blood sugar, but not frank type two diabetes, or type one diabetes, or you want to get your blood pressure down a few points for your cholesterol down or just lose a few pounds, whatever. What matters most is your overall way of eating and living. So if you indulge yourself one day doesn't mean you cheated, or you failed, or you're bad, just eat healthier. The next if you don't have time to exercise one day, do a little more than next, you know time to meditate for an hour, do it for a minute, whenever you do, there's a corresponding benefit. In all of our studies, I found I predicted incorrectly as it turned out, that younger people with less severe disease would do better. But it really turned out not to be how old or how sick they were, it was simply a function of the more they change, the more they improved at any age, which is a very empowering realization. But so much of the language of behavioral change has this kind of, you know, finger wagging nurse Ratchet, you know, moralizing you know, shaming quality to it, you know, like I cheated on my diet, you know, or once you call foods good or bad. It's a small step to saying I'm a bad person because I eat bad food. And that point might as well just finish the burger because you're a bad person. So. So rather than calling foods good or bad to just say some foods are more helpful than others, and to say start where you are, and say how much are you willing to change? Well, I'll eat a little less of the unhealthy things and more than healthy things. great. How much exercise you want to do. Well, I don't know, I'll walk 15 minutes a day. How much Meditation yoga you do, I don't know. I meditate five minutes to five minutes earlier and do that. How much love and support and I'll spend more time with my friends and family and then track it and see how you feel and and then after a month or so if you wanted to lose 10 pounds In the last five, if you want to your A1C to come down a point and it came down a half point or you wanted your cholesterol level to come down 50 points would come down 30, whatever, then you know you're on the right track. And now just eat a little more of the healthy and a little less of the unhealthy do a little more the exercise and meditation more time with your friends and family. I like that approach because you can't fail, you know, once you go on a diet, then you're more likely to go off of it. And you know, even more than being healthy. Most people want to feel free and in control. And as soon as I tell somebody, you know, eat this and don't eat that they immediately want to do the opposite. You know, this goes back to when God said don't eat the apple, and that didn't go so well. And that was you know, God talking. So this way, you're you're

choosing how much you want to change not because someone told you to do. And then you experience the benefits from your own action. So then, you know, like, Oh, when I eat this way, I feel good. When I eat that way. I don't feel so good. So let me more this unless of that. Because it comes out of your own experience, then it's not this diet war. And well, maybe it's true, and maybe it's not or who should I believe then you just know.

**Lucia Tiffany 25:59**

Yeah. And you know, I think it's so important that we're talking about lifestyle and not just a diet, something temporary, it's more something you want to be able to adopt in a way that enables you to do it sustainably, to stay on that to build habits, and to be able to do it for a lifetime. You know, our time is running out. But I am so so pleased with all of these keys and secrets that you have shared with us today, Dr. Ornish, this has been really wonderful good information that we can go out and start applying to our lives. And as you said, each one of us has that choice, we can decide if we want to experience the change and the benefits slowly or quickly. And that's all completely within our own control. And that's just wonderful, because I think it gives us all hope. it doesn't matter where we are, we can start from where we are and continue on this journey to better health. So I just want to say thank you so much for sharing with us today. And if you have a final word of wisdom that you would like to share with our audience, this would be a great time.

**Dr. Ornish 27:06**

Well, thanks to you because awareness is the first step in healing and thank you for helping me to raise awareness with so many people. And if anyone's interested in learning more about our work, go to [Ornish.com](http://Ornish.com) everything on there is free talks about the Alzheimer study, we're doing the Medicare covered reversing Heart Disease Program, which is now available via zoom, and the paperback of Ornish com which just came out. You know, I've been doing this work for over four decades. And I'm more passionate about it than ever, because I think, you know, there's a convergence of forces that finally make this the right idea at the right time and having seen what a powerful difference these simple changes can make. I really appreciate the chance to share them with you and your listeners.

**Lucia Tiffany 27:43**

Thank you so much. And to all of you listening today. Remember that health is wealth. And with every healthy choice, you are getting richer. Thank you for joining us.

**Dr. Ornish 27:53**

You too. Take care. Happy New Year.

**Lucia Tiffany**

Thank you