

# Neal Barnard, MD



## Plant-Based Protection

Neal Barnard, MD, is president of the Physicians Committee for Responsible Medicine. He's the author of 20 books on nutrition, including his latest bestseller, *Your Body in Balance: The New Science of Food, Hormones, and Health*. Dr. Barnard's research, funded by the National Institutes of Health, paved the way for viewing type 2 diabetes as a potentially reversible condition. He's also led research that has contributed to the acceptance of plant-based diets in the Dietary Guidelines for Americans. In Dr. Barnard's latest study, his research team found a way to knock out menopausal hot flashes for many women using just a simple diet change. Dr. Barnard is an adjunct professor of medicine at the George Washington University School of Medicine in Washington DC. And in 2016, he founded the Barnard Medical Center as a model for making nutrition a routine part of all medical care.

In the Food Revolution Summit, Dr. Barnard will share how from mood to memory problems, and from medications to menopause, it's possible to liberate health with a well implemented whole foods plant-based diet.

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**Ocean Robbins:** Welcome to the Food Revolution Summit, where we explore how you can heal your body, and your world, with food. This is Ocean Robbins, and I am joined by my dad and colleague, John Robbins, in welcoming our guest, Dr. Neal Barnard.

Dr. Neal Barnard is president of the Physicians Committee for Responsible Medicine. And he's the author of 20 books on nutrition, including his latest best seller, *Your Body in Balance: The New Science of Food, Hormones, and Health*.<sup>1</sup> Dr. Barnard's research funded by the National Institutes of Health paved the way for viewing type 2 diabetes as a potentially reversible condition.

He's also led research that has contributed to the acceptance of plant-based diets in the Dietary Guidelines for Americans. In Dr. Barnard's latest study, his research team found a way to knock out menopausal hot flashes for many women using just a simple diet change.<sup>2</sup> Dr. Barnard is an adjunct professor of medicine at the George Washington University School of Medicine in Washington DC. And in 2016, he founded the Barnard Medical Center as a model for making nutrition a routine part of all medical care.

So now, Neal, my dad and I are so grateful for your brilliant, critically important work and so glad to have this time with you. And now for the interview, I'm going to hand it over to my dad and colleague, John Robbins.

**John Robbins:** Well, thank you, Ocean, for that introduction, and thank you, Neal, for being with us once again.

**Dr. Neal Barnard:** Well, thank you. It's terrific to be with you.

## Physicians Committee for Responsible Medicine

**John Robbins:** You know, Ocean just mentioned that you're president of the Physicians Committee for Responsible Medicine, and I'm sure many of our listeners know about your wonderful work through that organization, but some of them may not. So, Neal, can you briefly explain the mission of PCRM?

**Dr. Neal Barnard:** Sure. The Physicians Committee got started back in 1985. I was in my first job after residency and I was practicing in New York and I felt that in medicine, we really needed to do something about preventing illness. We weren't doing anything about a heart attack until it came into the emergency room door, but you knew it was coming because the patients had risk

factors. I thought medicine ought to be dealing with that. And the same for breast cancer. We weren't doing anything until it showed up on a mammogram, but there are ways to reduce risk there, too. So I thought medicine ought to bring in food because that is the most important aspect of prevention for the vast majority of people. And then I also wanted to deal with ethical issues in research, how research is done and how research should proceed.

**John Robbins:** Well, what is it about your work that makes you feel most alive, and most grateful?

## Diet Can Change Your Whole Life

**Dr. Neal Barnard:** Well, I really have to say it is astounding to see the results. When we begin a research study here, we'll bring in people who have diabetes, and we'll change their diets. We'll see if food can help them to lose weight, get their blood sugars down, maybe even improve the serious complications like neuropathy. And then you see those things go away. On an individual basis, it's an amazing thing to see. It's life-changing to see, and we see this over and over again for diabetes, for weight problems, cholesterol problems, chronic pain, many other things.

**John Robbins:** I know that PCRM has conducted a study that found that eating a plant-based diet and removing animal products from people's plates led to improved moods and reduced depression and anxiety and higher self-actualization. Can you tell us about those studies or that particular study?

**Dr. Neal Barnard:** It was really almost an accident, I have to say. We started out with work on diabetes and weight issues. And we had found that helping people to understand what fruits and vegetables were, and to bring them into their diets, and to get away from animal-derived foods... You could really improve diabetes so much more effectively than the old-fashioned diabetes diet that said, "Don't eat bread, don't eat potatoes, don't eat carbohydrates." That turns out to be not very effective, but a plant-based diet, dramatically so.

So after those results were published, we were invited by the car insurance company Geico to do some studies with their employees. They've got a lot of employees. Some need to lose weight and get their diabetes together. And in the course of that work, first at two different Geico facilities and then at 10 different facilities across the country, we first saw exactly what you'd expect and people changed their diets.<sup>3-5</sup> You support them with a weekly class, and

they're learning how to do a plant-based diet, and the foods that you're hoping people will start eating more of, they're in the cafeteria, and that worked really well.

So weight dropped, diabetes improved, blood sugars came down, cholesterol improved, but then we started to see something that we hadn't really expected and that was moods were better. And you can measure mood with a standardized paper and pencil test where you rate how people feel, what their sleep is like, what their appetite is like. And you can rate all the elements that go into mood and when it's going a little south, we're going to call that depression, it was lightening up measurably as the diet kicked in. And then we looked at the flip side of depression, which is anxiety. Same thing.

So then we dug into just the basic measure of how you're doing, and that is, are you at work or are you not? Job absenteeism got substantially better as well. So that was really quite surprising because it's a finding that other researchers and other contacts have found as well. We don't know exactly the reason for it, but what we think is happening is that the anti-inflammatory effects of these simple, healthy foods, vegetables, fruits, and beans affect not just inflammation in the body, but also the inflammatory markers that circulate through the brain.

Secondly, the diet improves your gut, the gut microbiome. The gut bacteria turn into healthier species, and the less healthy ones are kind of edged out. The gut feeds back to the brain, the gut and the brain are talking all the time. And when you've got a healthier gut, you feel a whole lot better. That, plus the fact that, you know, there's nothing that feels as great as knocking off 20 pounds and having your diabetes improve so much, you don't need medicines anymore. So, yes, there was quite a remarkable effect on mood, and that has been replicated by other researchers since that time.

## Protect Your Brain from Alzheimer's with Plants

**John Robbins:** That's important for people to know, I think especially today with so many people feeling anxious and prone to depression. You mentioned that the whole foods, plant-based diet improves the inflammatory markers that circulate through the brain. You're the author of the very fine book, *Power Foods for the Brain*.<sup>6</sup>

I want to talk a little bit about Alzheimer's. Research published a couple of years ago in the *Journal of the American College of Nutrition*, found that diet may be and probably is the most important risk factor for Alzheimer's disease.<sup>7</sup>

And the study's authors concluded that consumption of meat increased dementia risk the most, followed by eggs and high-fat dairy, while high intakes of fruits and vegetables and whole grains in contrast, dramatically reduced the risk for Alzheimer's disease.

Neal, can you help our listeners understand why a whole foods, plant-based diet is so effective at protecting the brain from cognitive impairment and from Alzheimer's disease itself?

**Dr. Neal Barnard:** Yeah, it's a great question, John. Let me maybe separate what we know for sure from what we think. What we know for sure is that diet makes a big difference. And we saw that going back to the mid-90s, the Chicago Health and Aging Project researchers started measuring what people were eating, people in Chicago, lots of them.<sup>8</sup> And as time went on, they found certain patterns. And the first thing that just stood out as a big headline was those people who were avoiding saturated fat. That's the fat that comes out of bacon when you cook it up in the pan, that's the fat that's predominant in cheese and dairy products.

People who avoid that fat, if there's nothing else different in their diet, they're just avoiding saturated fat, their risk of Alzheimer's is cut by maybe 50–60, 70%, something like that, huge, huge drop. And then you look at people who avoid the trans fats, which are used in snack foods, the same thing, you're starting adding those together. And then they found that there are other things that are protective, the vitamin E for example, which is in nuts and seeds. You put these things together along with things for extra credit, like avoiding excess metals, too much iron in your diet, too much copper in your diet, being sedentary.

You add these things up, and I am convinced that we could probably prevent or very substantially delay 80% of Alzheimer's cases. So we know that, based on our observational studies that have been done, the question is why. And with regard to saturated fat, I honestly think it's probably not rocket science. Saturated fat drives up cholesterol. Cholesterol affects your arteries, not just in your heart, but also in your brain. I suspect that it's something probably no more elegant than that. But stay tuned, there's more research coming. But I have to say, now is the time to have a healthy breakfast because when you make a list of all the things you don't want to have happen to you, Alzheimer's is at the top of that list.

## The Ideal Diet for Alzheimer's Prevention

**John Robbins:** It really is. And the costs to society of Alzheimer's disease and, of course, the cost to the people who develop this disease are almost impossible to measure, but they're

huge. And this makes the studies that show that certain foods are beneficial to the brain and can help prevent Alzheimer's and other forms of dementia, all the more important for people to know about.

Blueberries are rich in anthocyanins and they've been shown to improve learning and recall in studies at the University of Cincinnati.<sup>9</sup> Blueberries have a reputation today, I think they deserve it, for being good for the brain — but they're just one food. Neal, if you were going to design an Alzheimer's prevention diet, what would it be?

**Dr. Neal Barnard:** Yes. I would include blueberries, I have to say.

The research you were mentioning at the University of Cincinnati is actually interesting because it was fast. They brought in people who were already having... their memories were kind of sputtering a little bit. They were up in their late 70s. And within three months' time, you could see measurable improvements, with blueberries or fruit. So I'm going to include the whole fruit group in my ideal diet. I'm going to add to it the vegetable group.

And I like to think of vegetable combinations. It's not just a little clump of green beans on the side of your plate. Why not have some green vegetables? Whether it's broccoli or kale or collards or Brussels sprouts or whatever. And then let's go for a different color, let's bring in the carrots or the sweet potatoes, so you've got the orange ones, the green ones. It's not just a treat for your eye, they have sort of complimentary nutrient profiles. Don't forget the legumes. You know, our grandparents knew what beans were, but our generation has kind of forgotten. It's good to remember. They have very extremely low saturated fat content, but lots of protein.

And then finally the whole grains. So those are my big food groups there.

And don't forget to supplement vitamin B12. It's easy to neglect it. Everybody over age 50, I don't care what your diet is, should be having vitamin B12. You need it for healthy nerves. You need it for healthy blood. If you don't have it, it's rough on the brain.

## Lifestyle Choices Over Medication

**John Robbins:** You know, as people get older, the habits that they lived by, and the food patterns that they've followed, tend to bear fruit. The chickens come home to (laughs) roost later in life, and last year a study was published in the *American Journal of Lifestyle Medicine* that found that plant-based diets reduce medication use among seniors.<sup>10</sup>

Those who followed a plant-based diet reduced their medications by 58%. Neal, can seniors realistically expect that if they shift to a whole foods, plant-based diet they will experience improved blood sugar, blood pressure, weight, cholesterol, and many other markers of better health — they will feel better and actually be healthier?

**Dr. Neal Barnard:** Age is not a barrier at all. In fact, I want to give some credit to Dean Ornish and his tremendous work back in 1990 when he published in *The Lancet* that a plant-based diet, along with other healthy lifestyle choices, regular exercise, stress reduction, and throwing out cigarettes... He showed that that could open the arteries again. That you'd see signs of reversal of heart disease. And age didn't have anything to do with it. It doesn't really matter, you know, what your age is. And that's what we've seen with diabetes, with weight issues, with blood pressure.<sup>11</sup>

So, obviously, you do want to get on a healthy diet as early as you possibly can, because you don't want your body to be damaged too much, because the more you damage it the harder it is to reverse things. But no matter how old a person is — and we see people here in our medical center in their 70s, 80s, and beyond — and regardless of age, when they adopt a really healthy diet, you see all of these things that you mentioned getting better. Their blood sugar comes down, I don't care how long they've had diabetes, their blood sugar improves. In the vast majority of people, their blood pressure comes down, their weight improves, their cholesterol levels improve.

And what that translates into, that sack of medicines that they came in with, they don't need so many. And day by day you see them being able to reduce and eliminate these medications and they feel just terrific. And then, of course, (laughs) the effects rub off on their spouse or their kids or whoever else came in with them. They get a terrific lesson too.

**John Robbins:** It seems to me that one of the markers, one of the drugs, rather, that most often is no longer needed when people make these dietary changes are the drugs that are used for hypertension or high blood pressure.

So much so, in fact, that if someone is going to make a dramatic change in their diet in a healthier direction, and they come to this change with high blood pressure and need pills to control it, they have to be very careful that their blood pressure (laughs) doesn't drop too low while they're still taking those drugs because they're not going to need them. Fairly quickly they're not going to need them. Is that your experience too?



**Dr. Neal Barnard:** Oh, you said it, absolutely. In fact, you have to prepare the patient for the fact that one day... You're going to be sitting at your breakfast table and you're going to stand up a little bit too quickly and you're going to get light-headed.

And that's because you're on a very powerful diet now, plus you're continuing all the powerful medicines that are driving your blood pressure down. And so, the way to prevent that is to track the blood pressure and it starts coming down. So as it does, you need to start weaning the patient off those medicines.

I mean, you have to be careful about it, because high blood pressure is a killer. So, you don't want it to be high, but you want to make sure that the person is not on medicines they do not need. And a lot of people are on one, two, three, occasionally four medicines for their blood pressure, and you start bringing those down.

Same thing, by the way, is true with blood sugar. People with diabetes, they come in, they have type 2 diabetes, they're on metformin, maybe a second oral medicine, maybe they're on insulin. We have to start backing off those medicines too, because the plant-based diet is so powerful that in combination with powerful medicines, you can drive the blood sugar too low. So, of course, the patients are thrilled, because (laughs) you're taking away the medicines they didn't want to take anyway. And, finally, it's because they didn't need them so much.

**John Robbins:** Yes. And these drugs do have side effects and everyone who takes them is aware of them. Sometimes they aren't told about them, or they're told about them in a way that just kind of glosses over them. But when you can use a diet to get healthier and not need the drugs in the first place, it seems to me that's just the better path.

**Dr. Neal Barnard:** Oh, and people have side effects that we didn't (laughs) tell them about. I'm talking about good side effects. "Oh, my indigestion went away, my GERD is gone. My sleep apnea is gone. My erectile dysfunction is gone, like, what was that about?" There's a great number of issues that get better that may not have been what brought them in in the first place.

## Alleviating Hot Flashes with a Plant-Based Diet

**John Robbins:** Yeah. This is one of the beauties of what you're advocating. And I know that you and the Physicians Committee do a lot for women's health. And I want to talk with you a little bit about hot flashes.

We know that as many as 80% of post-menopausal women suffer from hot flashes. And while some of them can be mild, they can also be quite intense and they can disrupt daily activities. Nighttime hot flashes, or night sweats as they're sometimes called, can cause long-term sleep disruptions. And on average, hot flash symptoms persist for more than seven years, and some women have them for more than 10 years.<sup>12</sup>

Neal, can you tell our listeners about your recent research that found, as I understand it, that a low-fat vegan diet that includes soybeans knocked out 84% of troubling hot flashes, and all the side effects, as you just mentioned, were good ones.<sup>2</sup>

**Dr. Neal Barnard:** Yeah, this was something we didn't exactly intend to do. But what happened was I wrote this book called *Your Body in Balance*, which you kind of mentioned at the beginning. And it has a chapter on menopause. And it describes how in countries where the diets, the traditional diets, are mostly plant-based... Like Japan in the 1960s, let's say, they were eating phenomenal amounts of rice and not much meat and no dairy at all, and they didn't have many hot flashes.<sup>1</sup>

Not just Japan, but the Yucatán Peninsula of Mexico, lots of black beans and corn, not much meat. And then when the diet was westernized in Japan, dairy came in and meat increased greatly, we started to see that hot flashes seemed to trend with a more meaty diet. But there was also a role for soybeans; they seem to have a protective effect.

And, so, anyway, I wrote about this in the menopause chapter of *Your Body in Balance*.<sup>1</sup> And after the book came out, a woman contacted me and her name was Betty. She said, "I read your chapter on menopause. I've been having terrible hot flashes. I read your chapter. My hot flashes were gone in just a matter of days."

And I was stunned by what she said because I thought it would help, but I didn't think it would help that rapidly. I thought it would take longer. She said, "No, no, seriously, completely gone in just a matter of," I think it was, "five days."

So, I asked her to tell me exactly what (laughs) she had done. And I took my pencil and she's saying, "I was... no animal products whatsoever, I kept oils really low, and I went on Amazon and I bought some soybeans." And I said, "Tell me the brand, and how do I cook them?"

And she said, "I put them in my Instant Pot." "How long did you cook them for?" I took down exactly what she had done. And then I hung up the phone, ran into my research director's office, and said, "We have to do a study." Because this woman had this miraculous result where not

only is she sleeping through the night and she's feeling great in the day, but no doctor is going to put her on hormone replacement therapy, with all the risks that that carries, because she's cured herself. We need to see, is this predictable for a large group of women?

So, we brought in a group of women. Everybody had these hot flashes just like you were describing. Recurring throughout the day, breaking out in a sweat, occurring sometimes two, three, four times at night, disrupting sleep, ruining their quality of life.

And we did those three steps. We threw out the animal products, we kept oils very, very low, and we added half a cup of cooked soybeans every day, non-GMO soybeans. And what we found was that the moderate to severe hot flashes, the ones that wake you up at night, the ones that drive you crazy, were cut by 84% in the diet group. And the average woman lost about eight pounds. It was a 12-week period, and women started describing this as this amazing, life-changing experience. Where, instead of trying to make up their mind if they needed to go to the drug counter and get a prescription, the cure was in their kitchen. It was in their hands, not somebody else's hands.

And so they wanted to then become advocates for this kind of thing. And, since that time, we've been doing classes for other women. And the women who had originally participated in the research now want to teach other women to kind of get out of the doctor's office and take care of their own health.

## **“But it’s too Restrictive”**

**John Robbins:** Indeed. That's beautiful. It passes from person to person. And who better to coach a woman going through this than a woman who's gone through it? And yet, there are people who say that the eating pattern that you advocate, that we also do, is too radical.

And while it may be effective, it's too restrictive. And, they say that life is full of uncertainties, and when they die they want to be sure that they've lived life to the full. And they use that as a reason not to change their diets. And, Neal, how would you respond to someone who thinks that way?

**Dr. Neal Barnard:** Oh, good heavens. I guess the first thing to say is that it is much easier than a person is imagining. We're at an Italian restaurant: Do you have the spaghetti with ground beef on top or the spaghetti with a chunky tomato sauce on top? You know, it's as simple as that. It's

really an easy choice and it's not hard. Or instead of meat chili, I have the bean chili, the vegetable stir fry, or the veggie burger instead of the meat burger. It's super simple.

But when we talk about restrictions... I have to tell you, I have almost a recurrent nightmare. When I was an intern, four o'clock in the morning my pager went off. And it was a woman I knew in the hospital. And I knew her because she'd been there for five weeks.

She had a gangrenous foot from type 2 diabetes that was poorly controlled. And she was on the orthopedic service for amputation of her foot. She refused the amputation. And she said, "I'm not going to let you take off my foot."

And we said, "Look, this is going to kill you. You've got a festering infection here." And the only answer (laughs) was I had to... I put an IV in her arm and I just pumped her with antibiotics. And I said, "I'm going to save this damn foot if I can," and we just kept her there in the hospital bed, on IV antibiotics, to try to knock out the infection. And so, every now and then her IV would clog off, and it would usually be four o'clock in the morning, and there I was with my needle to get the IVs going again.

Bottom line, she was discharged with her foot still intact. And that meant that we were wrong about the need for amputation. It was possible to save it. Now, I'm guessing that eventually, she lost that battle. But at least for the time being, we could keep it attached.

But the thing is, we were wrong in a much, much bigger way. For the entire six weeks that she was in the hospital, we talked to her about antibiotics, we talked to her about her blood sugars. Not once did anybody suggest that if she made bigger changes in her diet, she might be able to not just save her foot, but save her vision, maybe save her life. And the reason we didn't say that is because we didn't have the research that showed it was true. We didn't know it at that time.

So the reason I'm mentioning this is when a person says, "Isn't this kind of restrictive," to have beans? (laughs) You know, to... isn't it kind of restrictive to have the veggie lasagna instead of the meat lasagna? And I think of how restrictive it is to be in a hospital bed, hooked up to an IV, not being able to leave, wondering how many feet you're going to have on you when your loved ones come and take you home.

We start to die when we're in our 30s sometimes, with extra weight, and more medicines, and our blood pressure's up. And we get more restricted by the things that have occurred as the result of our diet choices, and it is so liberating to be able to turn all that around.

## Food is Addicting on Purpose

**John Robbins:** It is. And it's also made more difficult in our society by the excess of highly processed foods that are everywhere in our food world. And one of the things that bothers me the most, actually, is that the food companies that produce these foods that are everywhere have hired what they call craveability experts. That's the actual industry term. These are scientists, and they're hired to engineer and market food products with what the industry calls enhanced craveability quotients. And they provide these scientists with enormous budgets and highly sophisticated labs. What this means to me is that they're going to great lengths and they're spending enormous sums to make their food products as addictive as possible, really.

And there's a man, Howard Moskowitz. He's the guy who developed the concept of the “bliss point” that enables food companies to create the greatest amount of crave. And he was asked about the relationship between these foods and the obesity crisis. And his answer, I think, is telling. He said, “There's no moral issue for me. I don't have the luxury of being a moral creature.”

Now, Neal, it seems to me that this kind of thinking, this amoral thinking, is being used as a rationalization for creating and marketing foods that are devastating public health. And it really does bother me greatly when people feel that their food addiction, their cravings, are some kind of moral failing on their part when it isn't at all that way. It's the result of food science being used to hook people, and to exploit the fact that some of us are more susceptible than others. Neal, how do you see this?

**Dr. Neal Barnard:** Yeah, I think you're exactly right. And it's frightening to see how people... Just as you've said, there are teams of scientists who know exactly what is the combination of sugar and cocoa butter that makes your chocolate bar absolutely irresistible. And they have those formulas and they are continually refining them.

And researchers have found there are other ways to make things addictive too. Dairy products, as you know, have the casomorphins in them that are the mild opiates that can be concentrated as well.<sup>13,14</sup> And so it's not exactly as addicting as morphine, but it's in very much the same direction. And, in fact, it affects the very same receptors in the brain.

## First the Cigarettes, Now the Food

**Dr. Neal Barnard:** But I think the question of moral responsibility is something that people are starting to wake up to. When I was a resident at GW Hospital in Washington DC, finishing my residency, I would walk into the hospital in the morning and stop in the gift shop and I'd buy Merit Menthols and I would light up on the way down the hall.

And my head of surgery would buy Marlboros and he'd light up, too. And, you know, we weren't stupid; we knew it caused cancer. But we figured, well, I'm under stress now, and it takes time to get cancer. I'll quit later. At some point, the hospital came to the realization that this is not a bar and grill (laughs) — this is a hospital.

And what message are we giving to our patients and to the visitors and, frankly, to our own staff, if we actually sell these products that we know cause cancer? And we went into our gift shop and threw out the tobacco. And we made a decision as a hospital that we were going to not embrace tobacco anymore. Everybody quit, we all quit. We are now having that very same discussion about the hospital cafeteria.

If we know that bacon causes colorectal cancer, why are we serving it in the hospital cafeteria? Well, the answer is, maybe we're not going to anymore. So that discussion is happening and that is a good thing. The idea is, yes, we do have some moral responsibility, or let's take it on. Let's see if we can't make a healthier community. And here in Washington DC, when we look at our map of who gets colorectal cancer, who dies of it? There is an enormous racial disparity here and a geographic disparity. And there are many ways to try to attack that but one way is with the kinds of foods that people see and learn about when they're passing through a medical facility. Let's model the very best. And so that's what we're trying to do here.

## Getting the Disease-Causing Foods Out of Disease-Treating Places

**John Robbins:** Well, speaking of tobacco, the World Health Organization's International Agency for Research on Cancer has formally declared processed meat to be a proven carcinogen to humans.<sup>15</sup> This puts processed meat in the same category as asbestos and the AIDS virus. But you mentioned that hospitals are still serving some of the processed meats that are known to

cause cancer. The Children's Hospital of Georgia recently closed the McDonald's restaurant that was located inside the lobby of the hospital.

Neal, what role did you and your organization, the Physicians Committee for Responsible Medicine, play in this coming about, in the closing of this McDonald's restaurant in this hospital?

**Dr. Neal Barnard:** Well, I want to give some credit to William Castelli from the Framingham Heart Study because he said words that I have never forgotten. He said, "When you see the golden arches, you might be on the road to the pearly gates." (Laughs) And I thought, that is so perfect. So anyway, after he... I remember him saying that and I happened to notice at a hospital where I was lecturing that they had a McDonald's on the ground floor. Now that would not be a bad thing if McDonald's was serving really uniformly healthy food. There's nothing wrong with arches, it's just a question of what they have on the menu.

And so we, a number of years ago, started saying hospitals that contract out to fast-food chains have to end that relationship. And we've been successful with that. And sometimes you have to roll up your sleeves and push a little bit. But what we do, I have to say, we keep track of when the contracts are coming to their end, so that the hospital's negotiating with them. And then we have our people in white coats standing out in front of the hospital saying, why are you serving foods in this hospital that are killing children, killing adults, creating these pandemics of disease? And the hospital does not like that kind of bad image. And so we've been very, very successful at knocking them out.

## How Your Diet Impacts Your COVID-19 Outcomes

**John Robbins:** Well, I want to thank you for your efforts in that regard, and it is like smoking. It wasn't that long ago, as you were referring to, that doctors smoked and were portrayed in ads that were marketing specific brands. More doctors smoked Camels, as these ads were being shown to the public. At a time when the evidence linking smoking and heart disease, smoking and cancer, was irrefutable, it was overwhelming. And yet still, in the AMA headquarters cigarettes were for sale. I want to shift the topic a little bit.

I think that one of the things that isn't adequately appreciated today is that a bad diet is actually one of the best predictors for a severe case of COVID-19. Americans who suffer from diet-related conditions like heart disease and diabetes and obesity are in fact 12 times as likely to die after a COVID infection.<sup>16</sup> These are all diseases of chronic inflammation and chronic

inflammation is exactly what the standard American diet does to the human body. And it is in the inflamed body that COVID wreaks its worst damage.

Michael Pollan recently put it this way. He said, “The American food system kills us slowly during normal times and swiftly during a pandemic.” Neal, is this what we're seeing today?

**Dr. Neal Barnard:** Oh my goodness, absolutely. Frankly, as soon as the pandemic emerged in China, it was very clear that for people who were slim, COVID might be a killer for them, but it was unusual. Then when you would go up the body mass index to people who were a little overweight, people who were a lot overweight, people who were obese, the death rates went right up. And then the same was true not just with weight, but with diabetes.

People who had diabetes, particularly if the diabetes was poorly controlled so blood sugars were high... Diabetes might kill you over a 40-year period, but if COVID comes in, it can kill you in 14 days.<sup>17</sup> And that's what we were seeing, a dramatically higher risk of mortality in COVID infected people who happen to have diabetes, compared to a person who catches COVID but they don't have any of these risk factors. And then you can add in the other things that you would imagine, a person with lung disease, a person with heart disease, a person with high cholesterol, high blood pressure, all of these things were part of it.

And so when those data came out, we were all predicting that maybe people on a plant-based diet might do better because you're going to tend to be slimmer or tend to have lower blood sugar or lower blood pressure and so forth. But it wasn't until about maybe four or five months ago that those data came in and it turned out to be true. There was a big study of health care workers in six countries that showed that people on a more plant-based diet had a 73% reduced risk of severe COVID.<sup>18</sup>

And another study called The COVID Symptom Study... It was a smartphone study where you had almost 600,000 people registering their symptoms day after day after day, and 30-some thousand of them developed COVID. It followed the diet pattern, finding that the people who were more plant-based had a much lower risk of severe COVID.<sup>19</sup>

And one more thing to throw in there, in the six-country study, there was one diet group that did substantially worse, and those were people on a low-carbohydrate diet. Now people are doing an Atkins diet or that kind of thing for all kinds of reasons, but it tends to push the health markers in the wrong direction, and it seems to make them much more susceptible to severe COVID.



## Plant-Based Diets Reduce Stress

**John Robbins:** Is it true that your organization, PCRM, recently published a study, that your researchers randomized healthcare workers at a Washington DC hospital into a control group, or into a group instructed to follow a vegan diet, for 12 weeks?<sup>20</sup>

**Dr. Neal Barnard:** It was the absolute height of the pandemic. It was the summer of 2020. And if there was one group that was not sleeping at night and not eating well and just ran ragged it was hospital workers. So all we did was, we said, give us one lunch hour a week when we can talk to you about your diet. And let's serve healthy foods in the cafeteria, and let's just do a plant-based diet. And we found something that was not super surprising, which was that no matter what else is going on in your life — and for hospital workers at that time, it was a tough life — no matter what else is going on in your life, if at least you get healthy food, people lose weight. On average the weight loss was about 5.7 kilograms. That's maybe 13, 14 pounds. Blood sugars fell about 11 points. Total cholesterol dropped about 30 points. Bad cholesterol had about a 25-point drop. So all the markers were getting better. Diastolic blood pressure came down. People under stress, but their blood pressure goes down.

But the other thing, John, I have to tell you, we also... you can measure overall quality of life using various standardized instruments. And during the height of the pandemic their quality of life measurably improved. This didn't mean that they weren't under stress, but it's kind of like if you fall off a mountain, that's stress. But if you've got skis on your feet and you happen to jump off the mountain and you're in control of your course, it's good. So you're a hospital worker, you're under tremendous stress, you're not sleeping well. But you're feeling more power of your own health, you're feeling better energized, you're sleeping better. And you are realizing that you are caring for many people and helping those patients to do as well as they possibly can. It was just a remarkable result to see. So anyway, I want to thank our friends at Sibley Memorial Hospital here in Washington DC, who jumped in and said, yes, let's do this.

## Misleading Propaganda

**John Robbins:** There are so many advantages to eating a whole foods, plant-based diet, but there are commercial interests that want to keep the veil in place over people's eyes and to keep people from knowing what would, in fact, enhance the quality of their lives — and measurably. And, one of those entities, I think, is the National Cattlemen's Beef Association,

which describes itself as working to advance the economic, political, and social interests of the US cattle business.

Now, you'll notice there's nothing in that mission statement about public health. And so the Beef Association has recently placed ads in the *Wall Street Journal* and in other major newspapers that downplay, significantly downplay... The whole intention is to downplay the beef industry's impact on the climate crisis.

And this is coming at a time when the evidence that beef is playing a huge role in the climate crisis continues to mount. A study published just last August in the journal *Nature Food*, just to cite one example, evaluated 6,000 foods and ranked them by their impact on the environment and found that beef was number one. Beef had by far the largest carbon footprint of all 6,000 foods that they assessed.<sup>21</sup>

Neal, I know that the Physicians Committee has filed a petition with the FTC about this. It seems to me, and I know to you, that the Beef Association's propaganda isn't just wrong and misleading, it's dangerous and it's hurting people and it's compromising our future. What's your view of all this?

## Cattle Ranchers are Not the Enemies

**Dr. Neal Barnard:** There, at this point, is just no question that the climate is changing. And there's also no question that our diet contributes to it. And you just can't have tens of millions of belching cattle, with methane rising above them, with this being a tremendously potent greenhouse gas, there's just no way that this is not a cause of the climate change that we're seeing. And so we do have to take action. And, unfortunately, there are people who have an economic interest in trying to make that all go away, and they're paid to do that.

That said, I often think of cattle ranchers. They're not our enemies. My dad grew up in the cattle business and my grandfather did, too; and his father and my uncles and my cousins are still in that business today. So they're not our enemies, they're really our family. They will have the same heart disease and cancer risk. They will be suffering on the same lost planet as all the rest of us. So it is true that we go to the federal government to stop them from putting out these kinds of absurd ads.

We have to counter their effects, but it's with the idea that this is a family member and we've got our hand on their shoulders saying, look, let's work together to change this.

The tobacco industry did the same thing a generation ago. They were trying to make bad news go away. And those were honest people who got into a business before the risks were known. As the risks were known, we had to speak out and we had to help them to transition into something else. And that's what animal agriculture is going to do.

They are going to have to transition into other kinds of work, and there are plenty of other things to do. And we're seeing this, especially in the dairy industry now, the dairy farmers are going out of business left and right. And they're not bad people, they're people trying to feed their families who happen to be doing what turns out to be a very bad thing, slaughtering animals and doing really unfortunate things to them. But we all profit. We all get better when we can change our economy so that we're supporting healthy activities and healthy industries.

## **We're All Humans First**

**John Robbins:** Well, when you say that they're family, I have a very personal connection to what you're saying. My dad and my uncle founded Baskin-Robbins, the ice cream company that became, during my childhood, the world's largest ice cream company. It was a multi-billion-dollar enterprise. And my uncle Burt Baskin, a very big guy who ate a lot of ice cream, died of a heart attack at the age of 54. And my father ate a lot of ice cream and he developed very serious diabetes and high blood pressure and heart disease and the whole thing.

However, he did have an awakening. He did come to see that the diet that he had been eating and the ice cream that he'd been selling were a big part of the problem, and he changed his diet and he reversed his diabetes. He went into complete remission, he no longer needed insulin, he no longer needed metformin or any other diabetic pill. And his... the same thing happened with his high blood pressure, completely normalized and he no longer needed the meds he'd been told he'd have to take for the rest of his life. And he lost weight and he lived a lot longer, with healthier years than he had any expectation of before making those shifts.

And I watched him. He didn't know when he established the company that ice cream contributed to heart disease. He didn't know that the dairy industry was cruel to the animals involved. He didn't know these things and frankly, he didn't want to know them. But when that information, apparently through my efforts, became impossible for him to ignore, he made

changes and he pretty well saved his life. And I think it's really important when we are interacting with people who seem to represent the industries, or who do in fact represent the industries, or even own the industries that are pushing a bad diet on people, that we remember somehow that they're human beings. That we're all human beings.

And that if we can speak to them and interact with them... Yes, we want to stop the bad things they're doing. But at the same time, if we can keep compassion in our hearts for them as human beings, then I think we have a better chance of being effective in the long run.

## **It Doesn't have to be Hard**

**Dr. Neal Barnard:** Sure. I think there's no question about it. Everybody is involved in this in one way or another, and we all kind of get hooked on foods that are less than healthy and so forth. And, yet the beauty of it is that when you make these changes and you adopt a healthy diet, it doesn't feel restrictive. Oh my, you know, I loved ice cream, now it's all gone. You think it's going to be like that but it turns out to be very different.

When I was growing up in North Dakota, you know, every day in my life, it was roast beef, baked potatoes, corn, and a pretty simple diet. And, it's true that when I got that out of my routine, I wasn't entirely sure what to eat for maybe a week or two. But now, you know, I live in Washington DC. And if I leave my office and I go down the block, there's an Italian place that'll make angel hair pasta with marinara sauce, tomato sauce, and arrabbiata sauce, which is, you know, Italian for "angry," because it's a spicy tomato sauce. And next to it, there's a sushi place that will make a cucumber roll or an asparagus roll or miso soup and seaweed salads.

And then down the block, there's an Indian restaurant with wonderful curries, a Chinese restaurant not too far away with vegetables, tofu, rice dishes. And if you told me, no, Neal, you can't have any of that stuff; go back to Fargo and just have your roast beef, baked potatoes, and corn. I'd say, wait a minute, what I eat now is more varied, more interesting, more diverse than anything I grew up with. So the pleasures of life aren't gone, any more than if you told me I can't be a non-smoker anymore. I have to go back to enjoying my menthol cigarettes, which I had when I was younger, to me would not add to my life at all.

So being free of some of these bad things is a great transition. And so when you've got a family member, or in our case, patients who come in, or research participants and you guide them to

making these changes, they'll very soon discover that their whole quality of life is improving just dramatically. And they're just so glad to be there for the ride.

**John Robbins:** It's wonderful to be able to provide a service that people can receive with so much benefit to their lives. And, Neal, it's always a great pleasure for me to speak with you, to learn from you, and to bring your knowledge and your wisdom and your compassion to our listeners. Right now, there are hundreds of thousands of people listening to us. Is there anything you want to say to them as we conclude this conversation?

**Dr. Neal Barnard:** John, you probably don't know this, but it was many decades ago that I was inspired by somebody who was talking about a power that we didn't know we had, and that was the power to change the environment. And this huge immovable thing of our environment was something that we could change based on what we ate every day and what we fed to our families. And that person was you, John.

And I thought, okay, he's got some real knowledge that we need to take advantage of and look at what he's doing. He's changing the world. And, for me and my medical career, we're doing this hopefully in our own way. But what I realized, what you've taught me, what Ocean's taught me, and others working in much the same direction is that everybody has a place on this team in our own way. So if a person is a teacher in a school or they're a school nurse, or they're working in a factory, or they're working in HR somewhere, we all have a way to help the people that we're working with to take the power of healthy eating into their hands and to advocate in a gentle, but hopefully a reasonably authoritative way to move away from a diet that is not just hurting animals or hurting the earth, but frankly it's hurting our coronary arteries and making our kids worry about us.

We can turn that whole thing around. And so I'm grateful to you for giving me that realization a long time ago, and I'm grateful that we've got a team that people can join. And, if someone is listening to this, wanting to take that power in their hands, I would just ask them not to hesitate.

**John Robbins:** Don't hesitate. Good advice, Neal, really good advice. And thank you for that acknowledgement, too. I really want to thank you, Neal, for your clarity, your courage, for the enormous contributions you've been making for decades to the health and to the ethics of our society. We're a more moral people. We're better people. We're healthier people. We have a better chance of having a livable future thanks to your efforts.

On behalf of myself and Ocean and everyone involved in the Food Revolution... In fact, on behalf of everyone who plans to eat for the rest of their lives, I want to thank you for your brilliant insights and your tireless dedication and, of course, for being with us today.

**Dr. Neal Barnard:** No, thank you. We're not done yet. Lots more. There's lots more to come.

**Ocean Robbins:** Lots more to come in this Summit and in this movement. We've been talking here with Dr. Neal Barnard, founder and president of Physicians Committee for Responsible Medicine, founder of the Barnard Medical Center, and best-selling author of 20 books, including *Your Body in Balance*.<sup>1</sup> Neal, we want to thank you for your decades of impeccable research, for your eloquence, for your brilliant leadership, and for your partnership in the Food Revolution.

**Dr. Neal Barnard:** Thank you, Ocean. It's been a pleasure being with you today.

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